

FINAL PROJECT
PROPOSAL

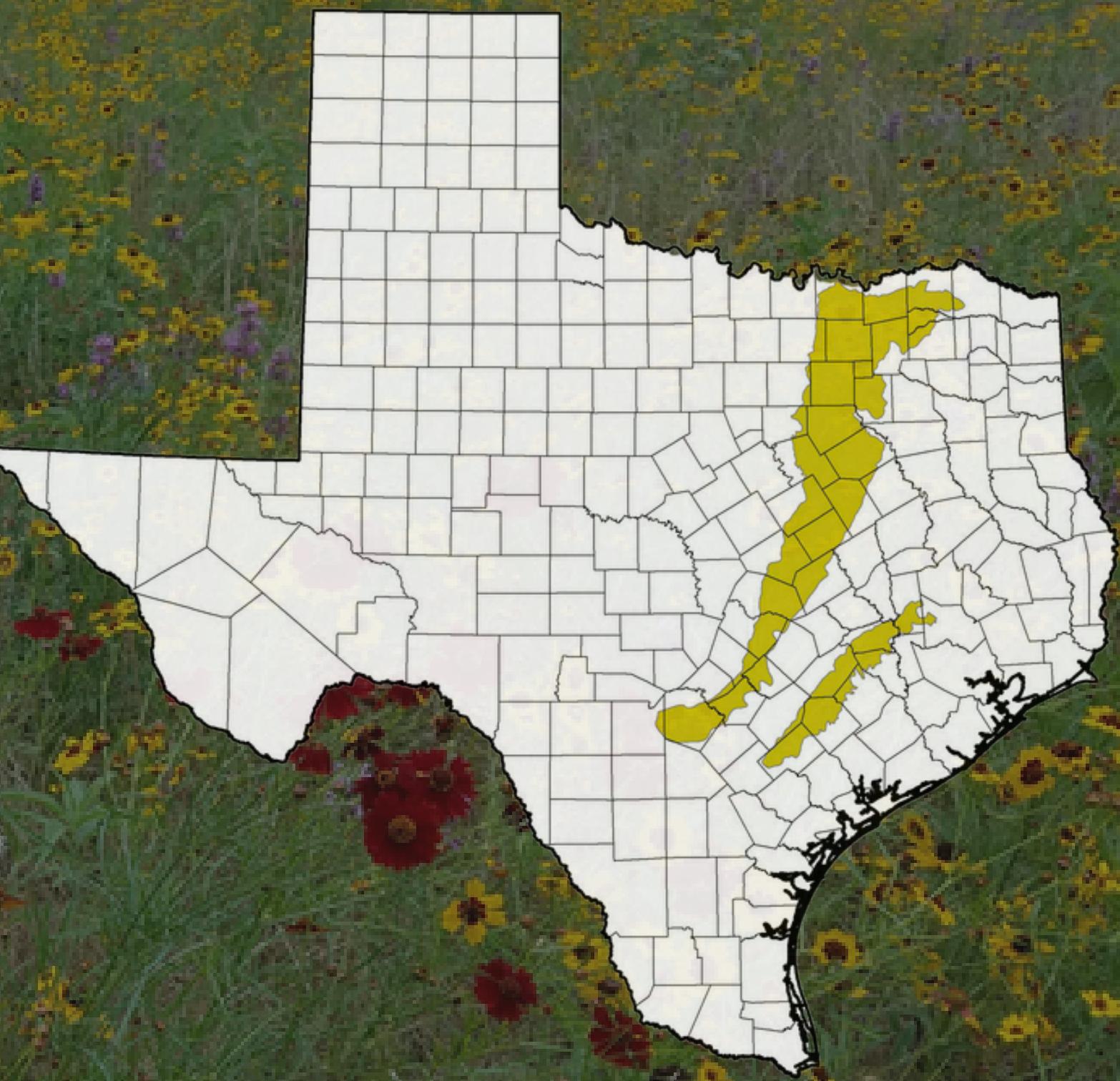
MADDIE OLSEN
2025-2026

PRairie INTERFACES

ENGAGING AUDIENCES WITH LOCAL ECOLOGY THROUGH E-TEXTILE INSTALLATION

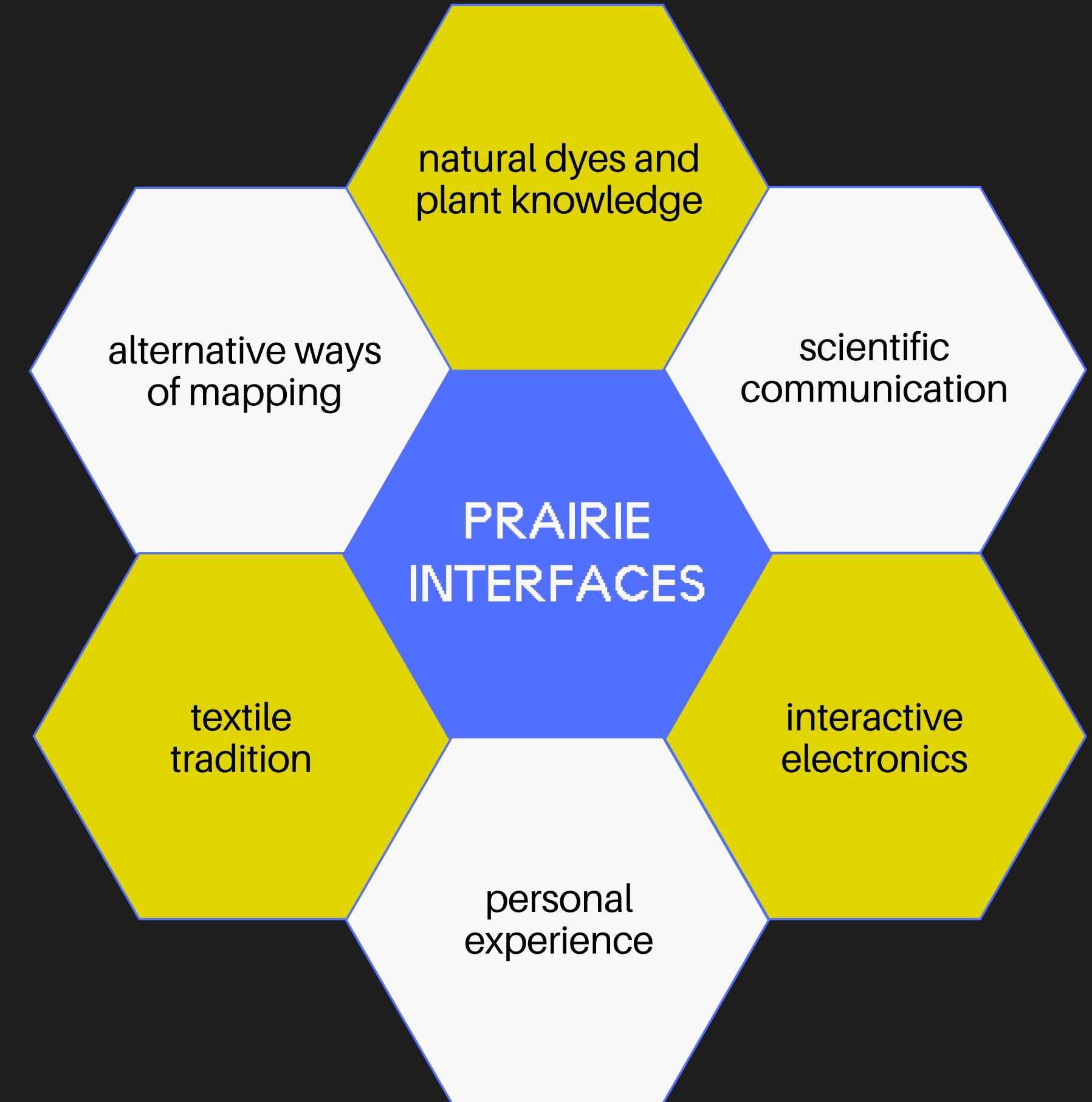
LESS THAN 1% OF
THE ORIGINAL
BLACKLAND
PRAIRIE REMAINS.

WHY



Prairie Interfaces is an art piece, an interactive tapestry that tells a story about the Blackland Prairie ecoregion of Texas. It utilizes natural dyed fibers to connect the plants depicted in the story to the process of creating the object. E-textile sensors with microcontrollers activate the piece, engaging viewers with a narrative about the past, present, and future of North Texas' local ecology.

WHAT



STATE OF THE ART



TAPIS MAGIQUE: MACHINE-KNITTED ELECTRONIC TEXTILE CARPET FOR INTERACTIVE CHOREOMUSICAL PERFORMANCE AND IMMERSIVE ENVIRONMENTS



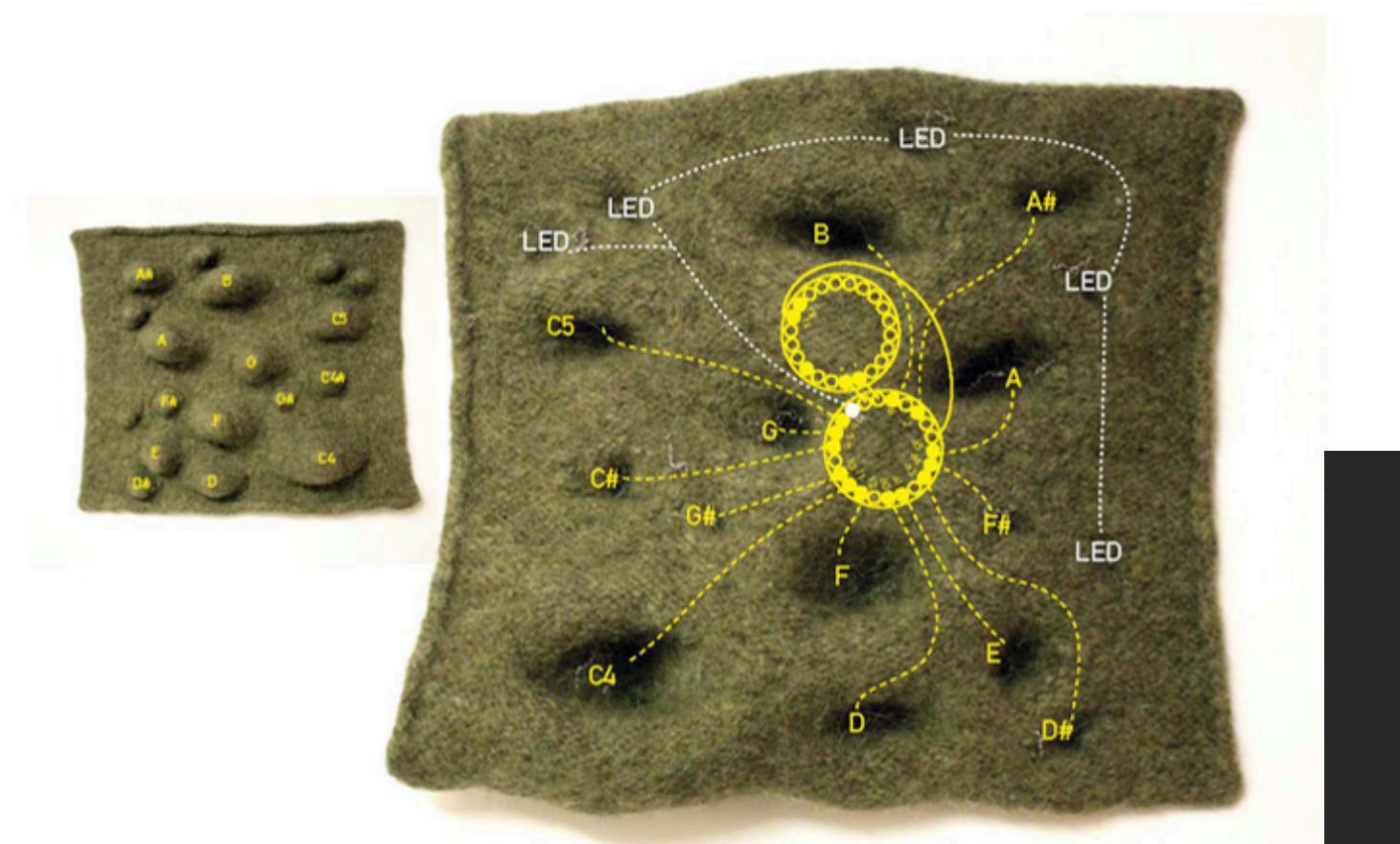
TEXTILE ORCHESTRA INTERACTIVE INSTALLATION



FELTED TERRAIN: INTERACTIVE KNITTED LANDSCAPE



SHAG / RYA / PILE TECHNIQUE AS A VISUAL METAPHOR



© YIHYUN LIM

HOW

[Watch video on YouTube](#)

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INPUT, OUTPUT, MATERIAL GOALS

TOUCH

Stroke, press, feel. Touch interactions inspired by the sensory experience of long grasses.

Embed conductive threads. They function as analog pressure sensors.

VISUAL

Dynamic graphic output. Visualize serial data with p5.js or processing.

Make flowers bloom, distort a map, or zoom a timeline.

MATERIAL



Biochromes and bio-based yarns with an emphasis on local color.

TIMELINE

JANUARY 27

Source yarns, dyes, rug backing, and conductive fabrics.

Dye yarns.

Prototype sensor structure and function.

Started final tapestry.

FEBRUARY 12

Knot tying in progress, to be finished within 1 week of this date.

Developing sensor output. Testing methods of transmitting sensor data.

MARCH 10

Completed tapestry.

Working inputs and outputs.

Outputs related to narrative.

MYSELF:

Digest and articulate a narrative I've been considering for nearly two years.
It needs an outlet.

AUDIENCES:

Engage people in my locality and beyond with natural history and ecology.

RELEVANT LOCATIONS:

Propose to share the project at nature centers, galleries, educational spaces.

WHO



SITE VISITS

DRAW, PHOTOGRAPH, INTERVIEW

READ AND WRITE

REFLECT ON MY RELATIONSHIP WITH THE ENVIRONMENT

HISTORY AND RESEARCH

EDUCATE MYSELF FURTHER ON LOCAL HISTORY AND ECOLOGY

FIRST PERSON RESEARCH