



# Visualizing Boone History

## A Case Study in Developing Physical and Digital Map Displays

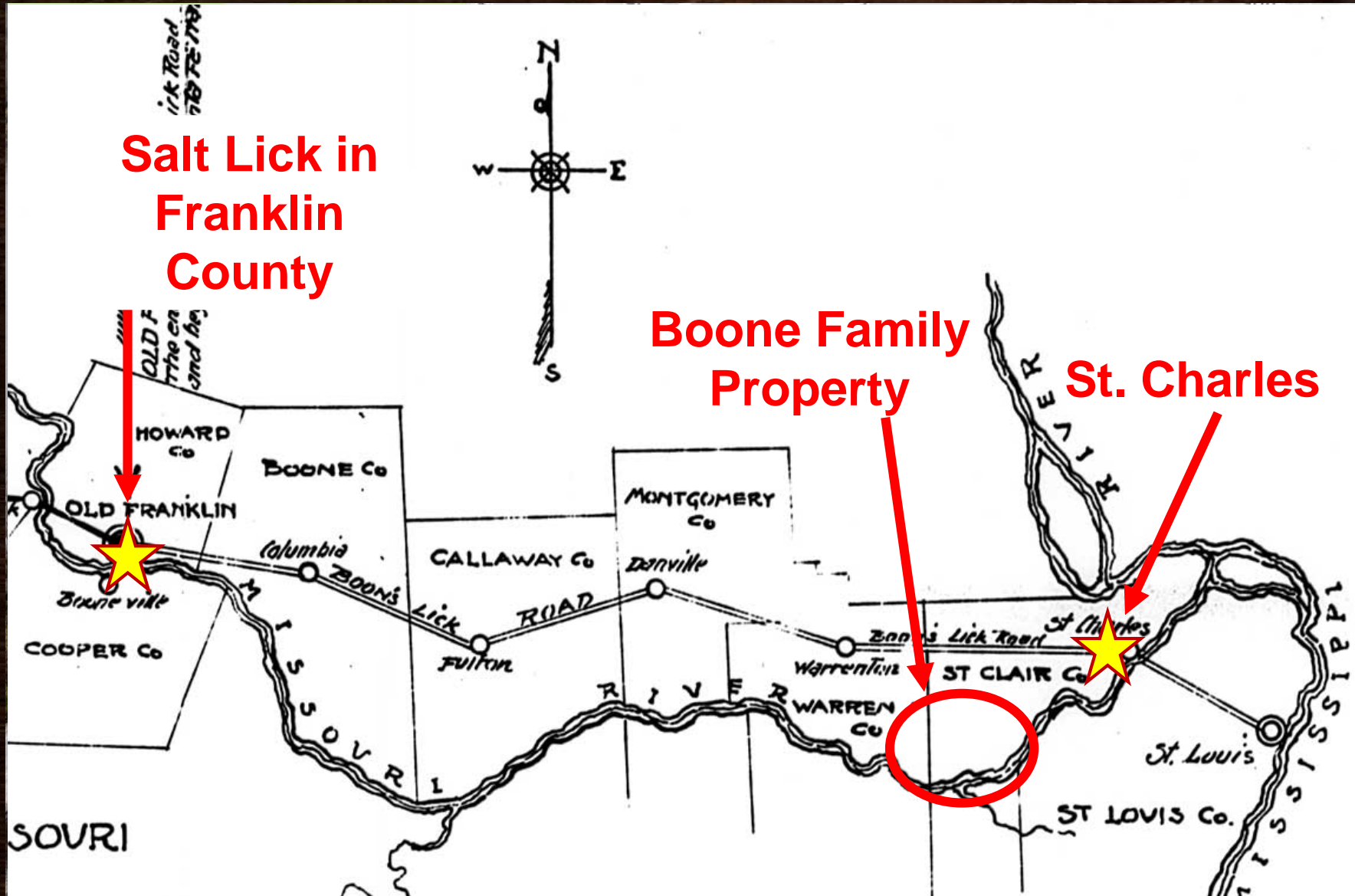
PRESENTED BY: JESSICA NOONAN  
ADVISOR: DR. DERYCK HOLDSWORTH  
FALL 2 - 2017

# Overview

- Introduction
- Purpose
- Background
- Objectives
- Methods
- Limitations
- Timeline
- References

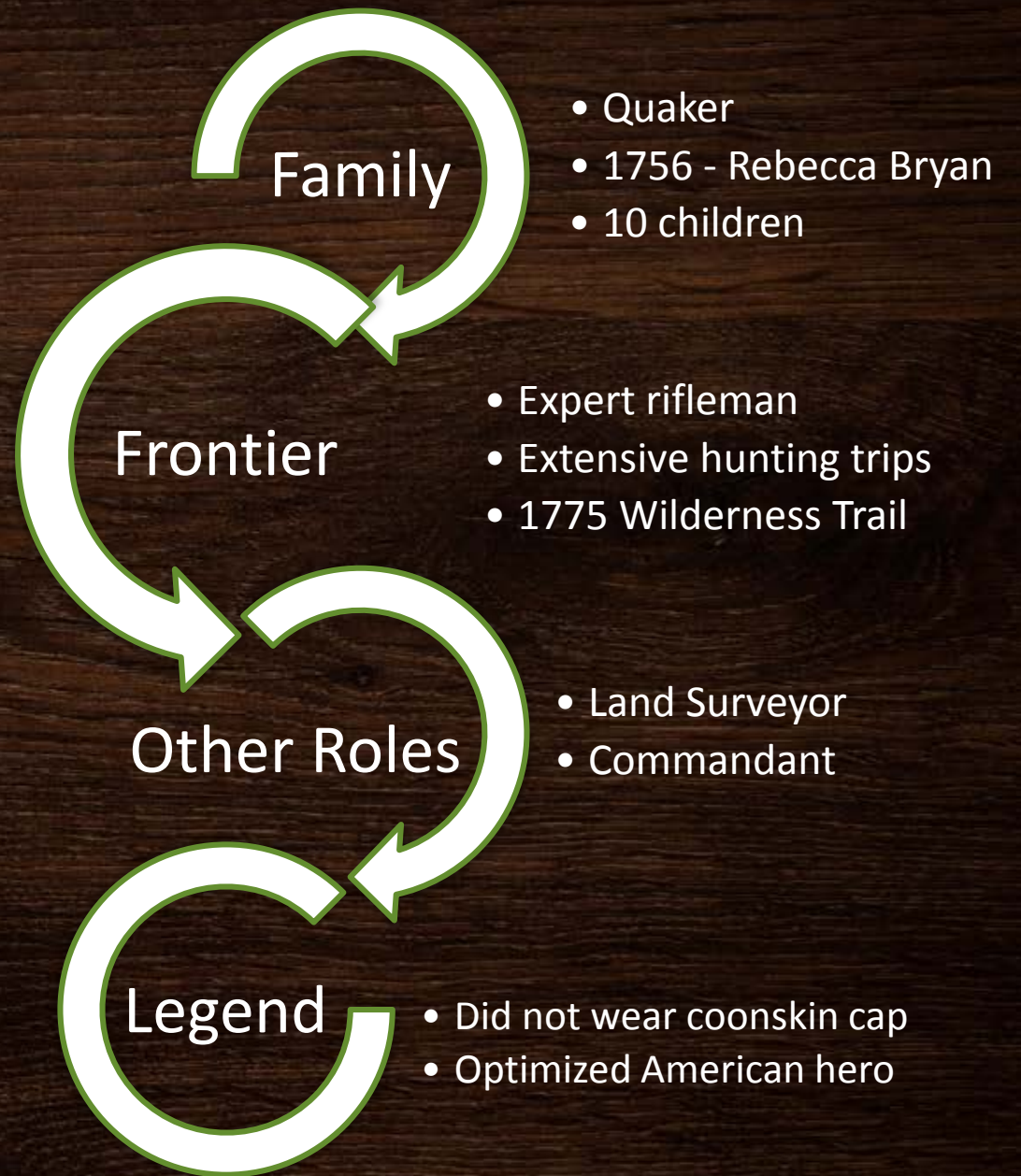
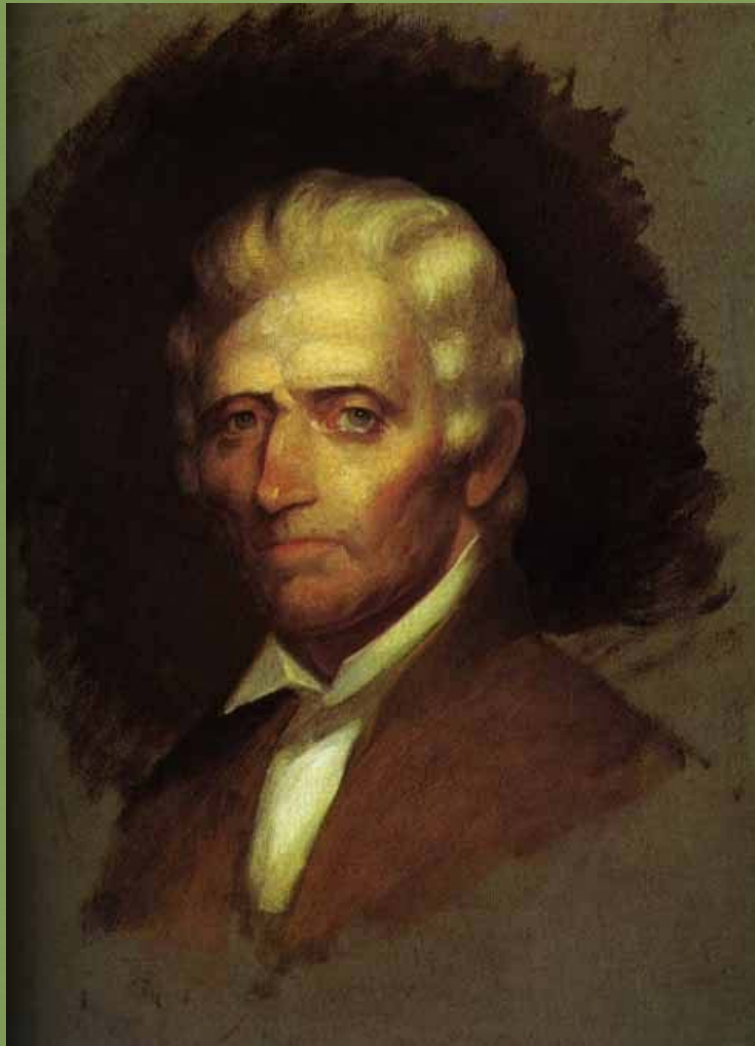


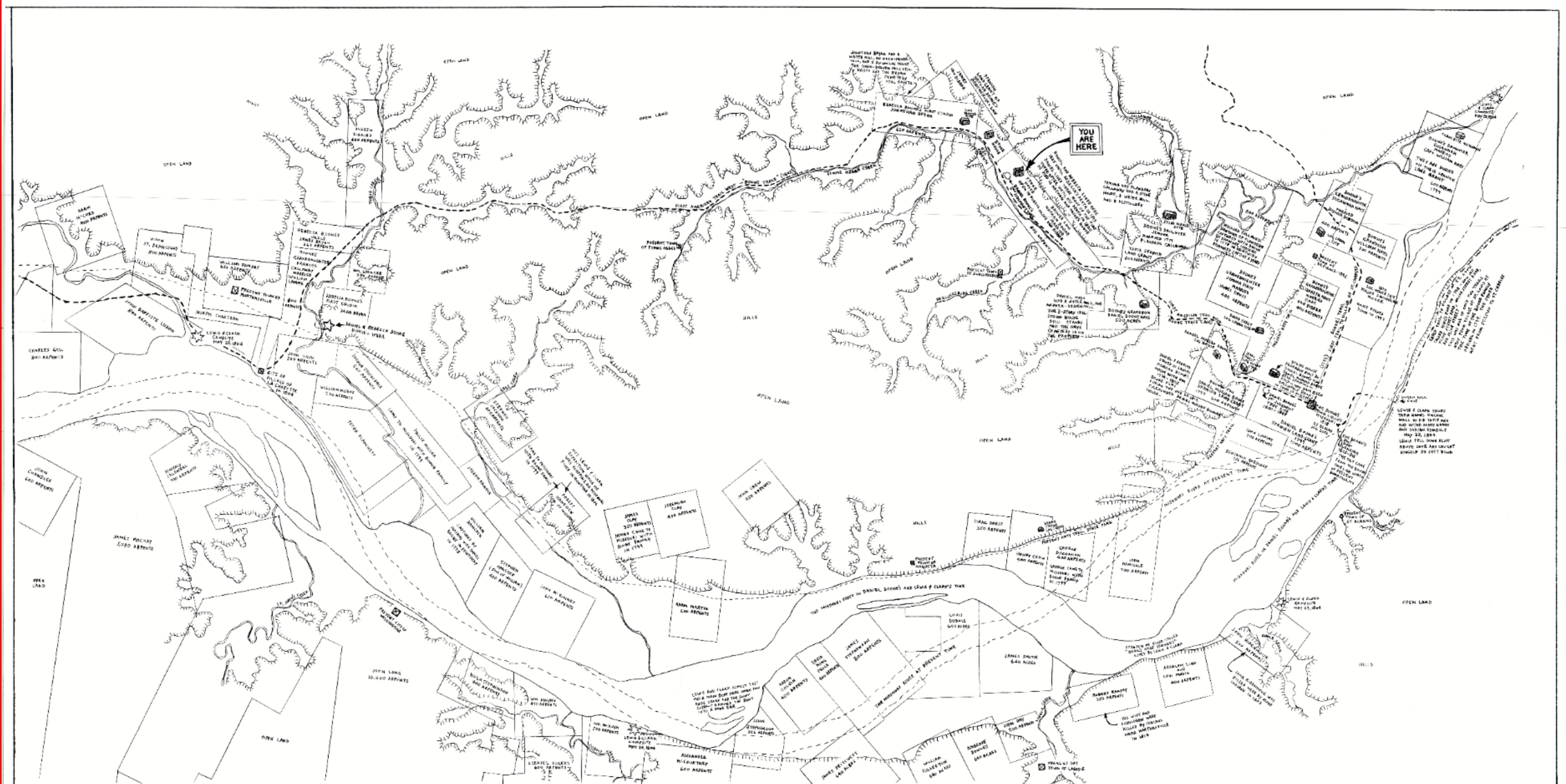
# Shaping Our Modern Landscape



# Daniel Boone

1734-1820





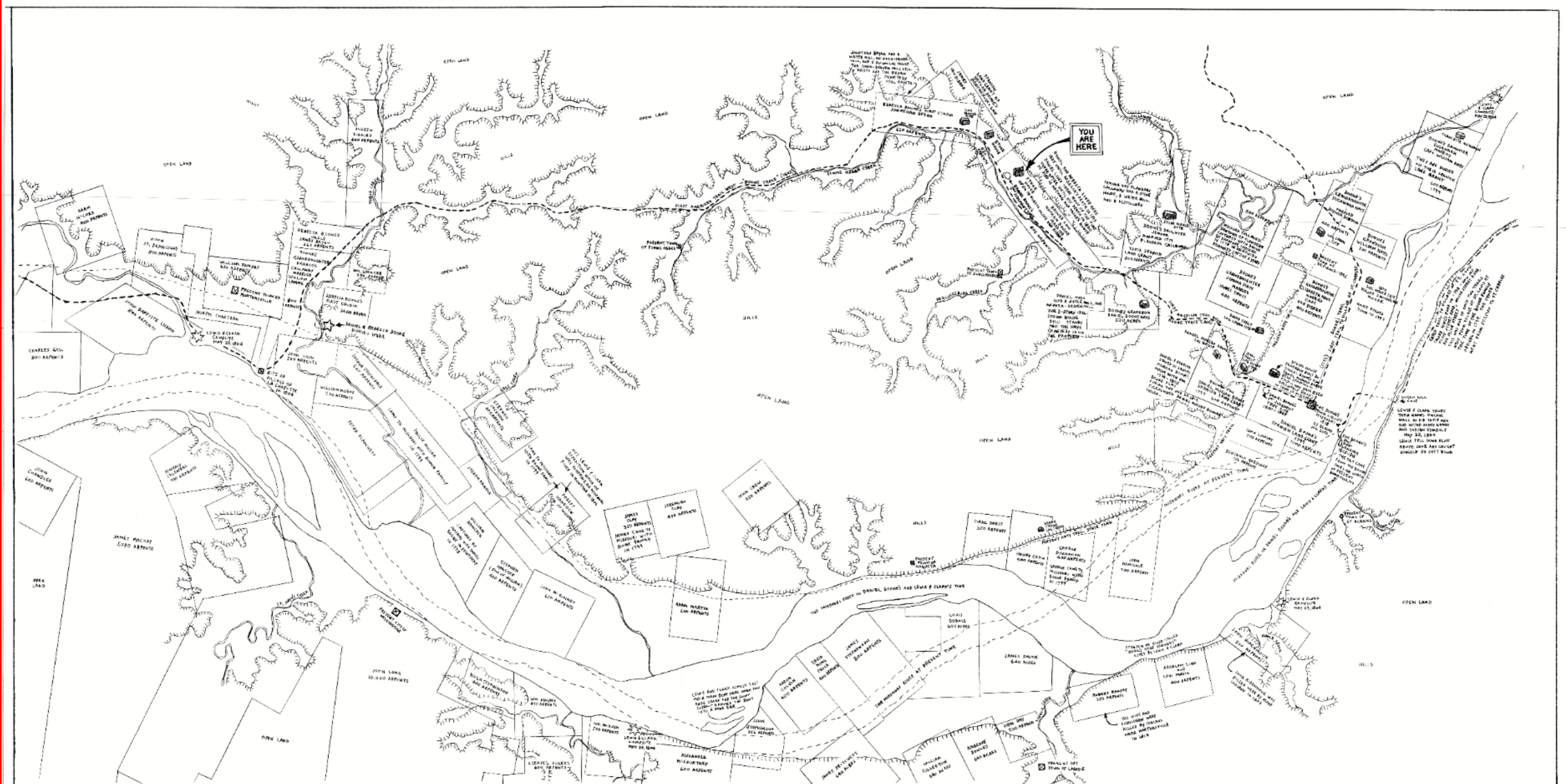
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# The Project

Hand drawn  
map

Physical  
Relief Model

Interactive  
Web Map



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# Stakeholders

*...brings a fresh sense of perspective by literally superimposing the past over the present. ~  
William Ray, Lead Interpreter*

*Bryan Mill – 1850, Painting By: Bryan Haynes, 2012*

- St. Charles County Government
- Academia
- Local Community
- Historical Societies



# Timeline of Femme Osage Region Major Events

## Indigenous Cultures

600 CE Middle Mississippian

1350 CE Cahokia Site abandoned

Seven tribes of Missouri

- Chickasaw
- Illini
- Ioway
- Quapaw
- Missouriia
- Osage
- Otoe

## Early Colonization

1673 - Marquette & Jolliet

1720 – 500 slaves brought to work  
in Des Peres, Missouri

1762 – French ceded land to Spain

1769 – Les Petite Côtes

1797 - Daniel Morgan Moves West

1799 - Daniel Boone Moves West  
with Settlers

1800 - Appointed as Spanish  
Commandant

## Early America

1803 - Louisiana Purchase

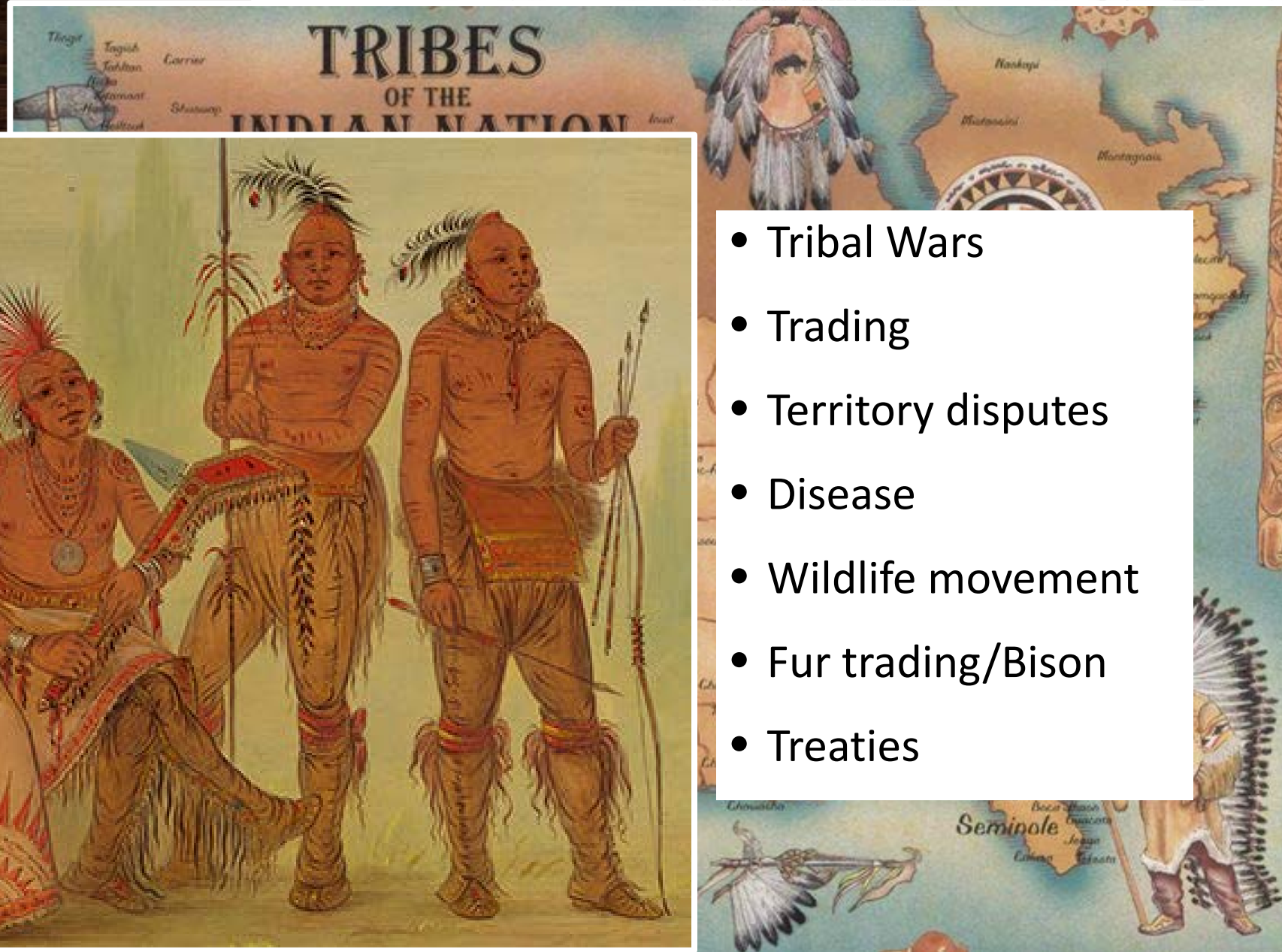
1804 – 1806 Lewis Clark Expedition

1805 – Boones Lick Trail

1808 – Osage Treaty

Sept. 26, 1820 - Boone Passed  
Away

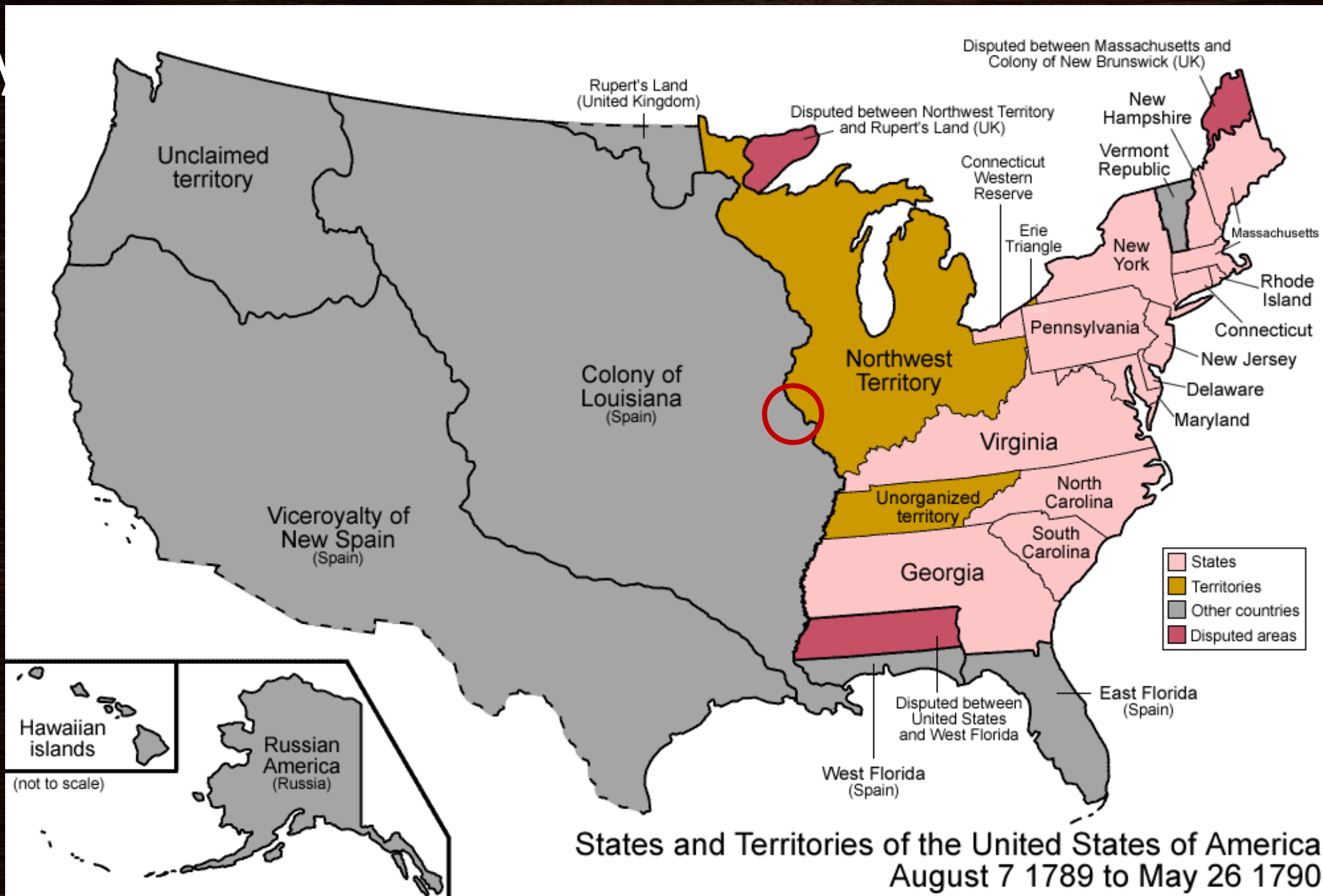
# Indigenous Cultures



Osage Nation

- Tribal Wars
- Trading
- Territory disputes
- Disease
- Wildlife movement
- Fur trading/Bison
- Treaties

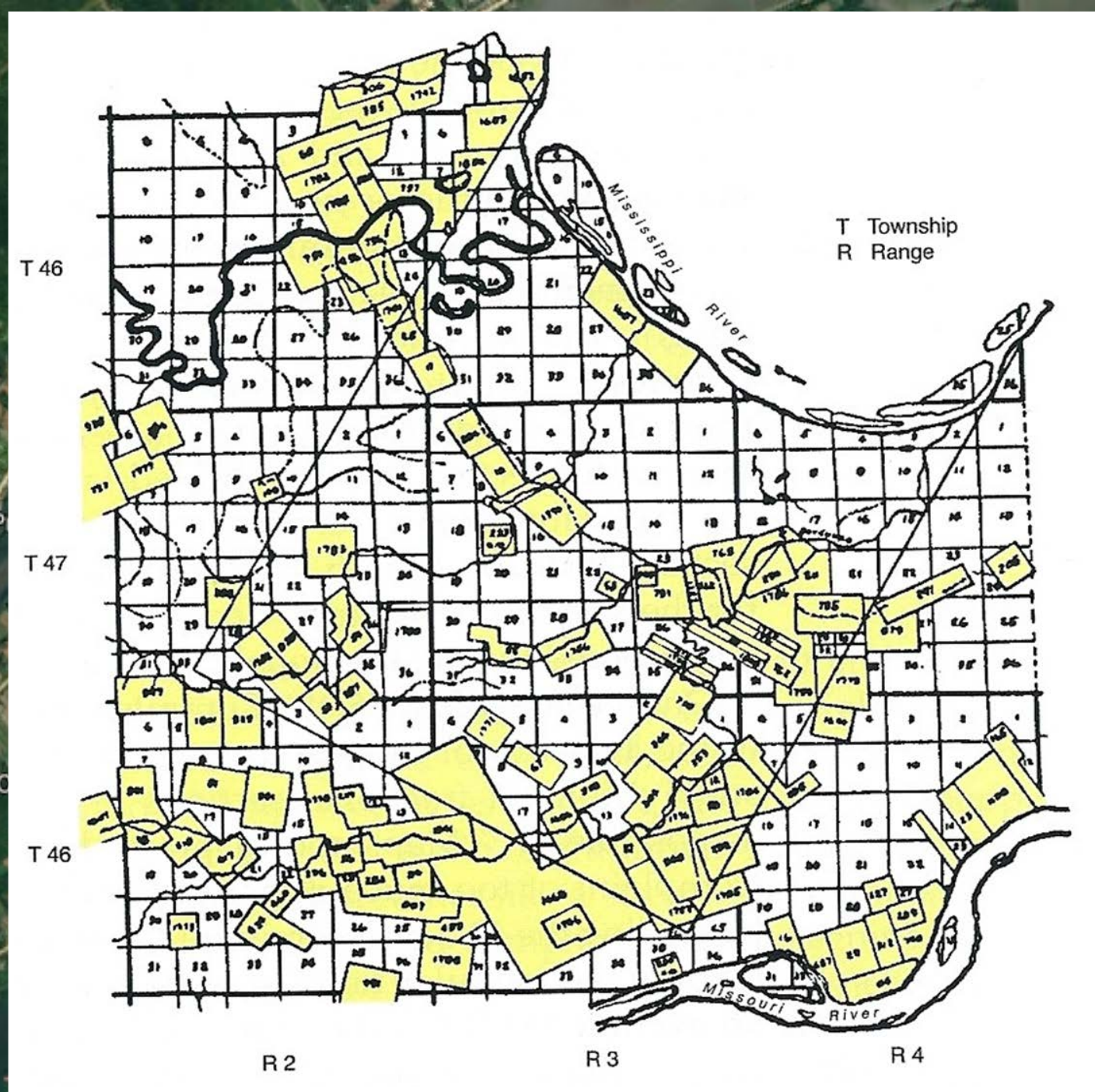
Early



# Land Grants

French and Spanish private claims lie embedded in the rectangular survey pattern in St. Charles County, Missouri, northeast of St. Louis.

Hildegard Binder Johnson, fig 7.3, page 147, in her chapter "Gridding a national landscape", in Michael P. Conzen, editor, *The Making of the American Landscape*, Second Edition, (New York: Routledge, 2010).



# Early America

*Daniel Boone Escorting Settlers* (American Heritage Museum, 2017)  
By: George Caleb Bingham



*Early American Log Cabin*



*Nathan Boone Home – Georgian Style*

# Visual Communication

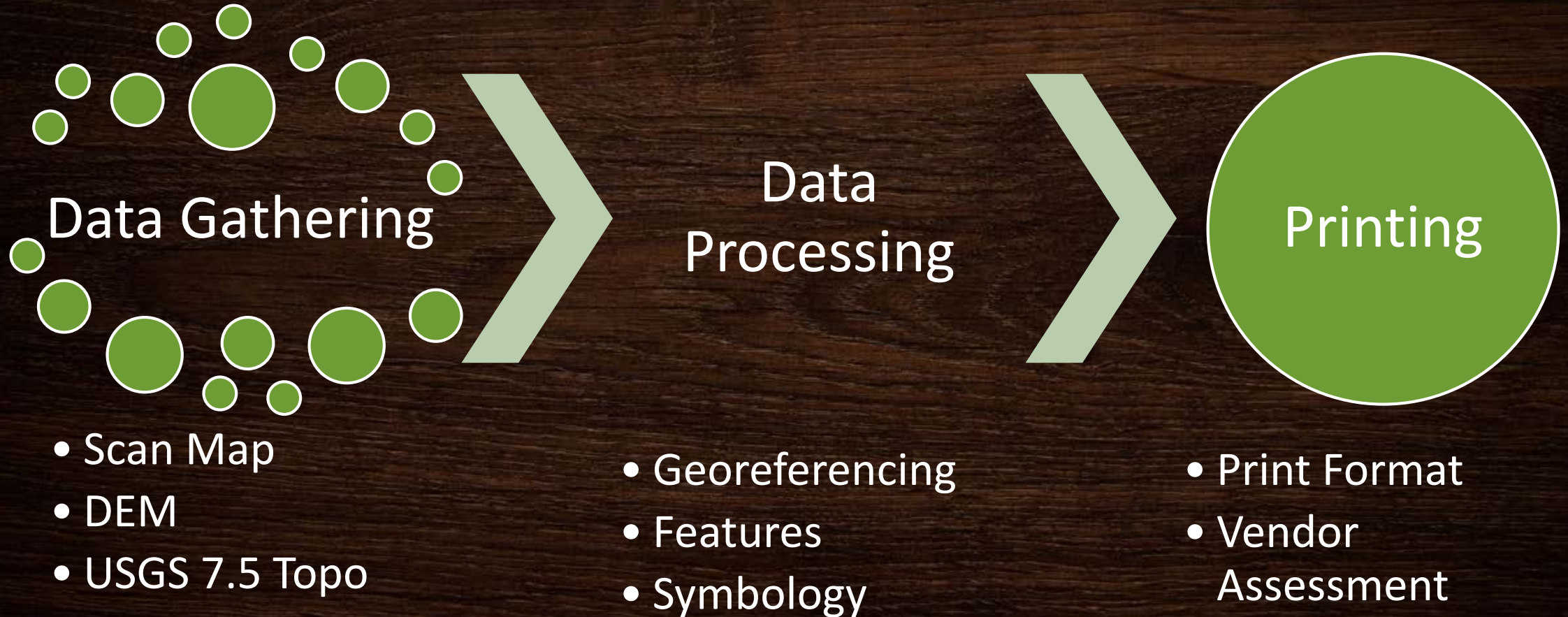
## Physical

- Controlled to Tell a Story
- Tangible perspective for visual/tactile learners
- Does not require supplemental materials
- Piece of art

## Digital

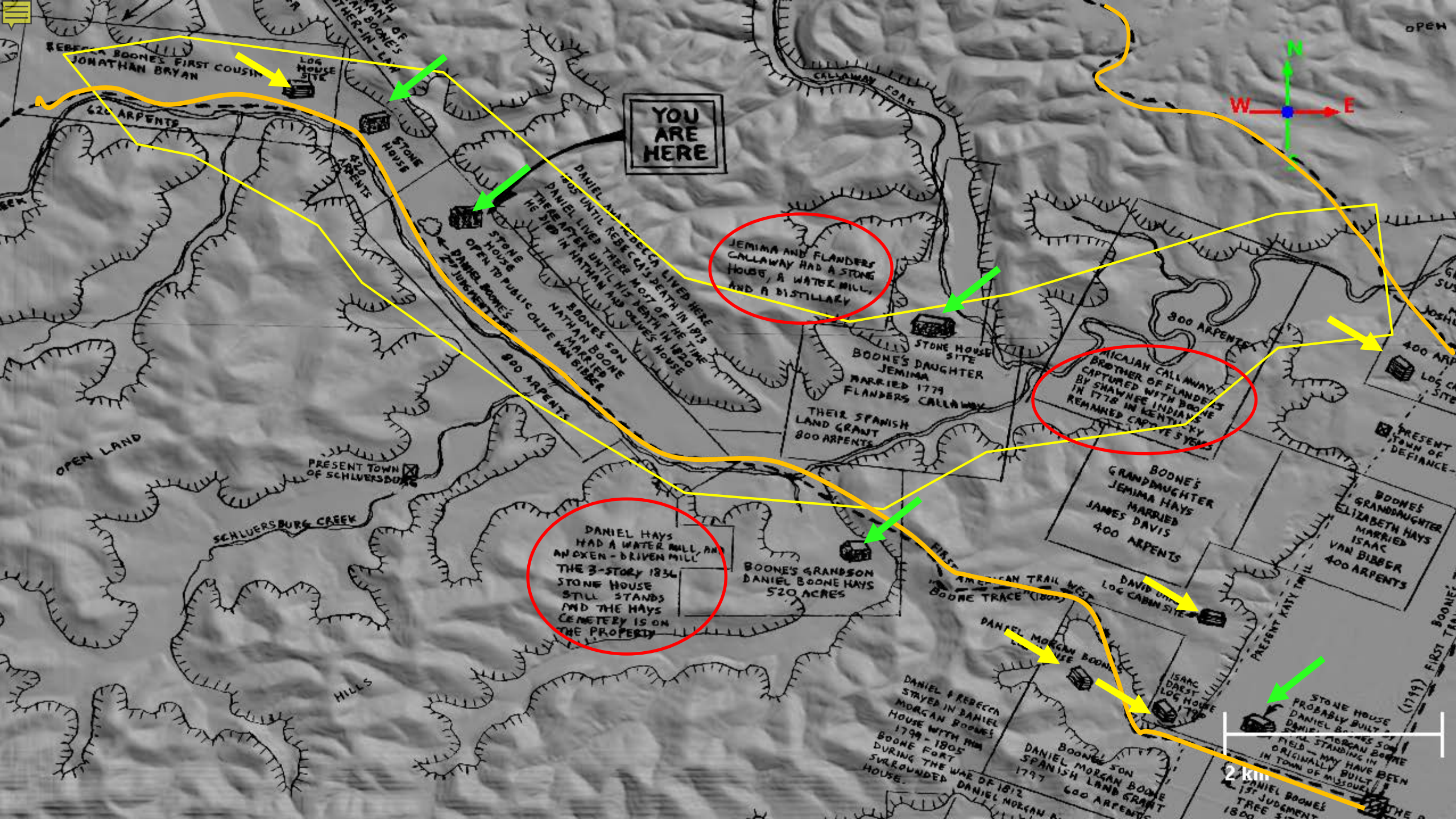
- Reduce clutter
  - Feature Selection
  - Narrative Pop-Ups
  - Symbology Auto-Resizing
- User Has Choice
  - Determining visible layers
- Reach a wider audience
  - Mobile/Desktop

# Map Display Workflow

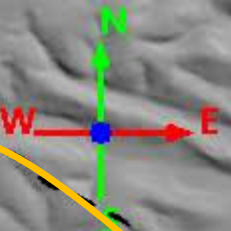








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JEMIMA AND FLANDERS CALLAWAY HAD A STONE HOUSE, A WATER MILL, AND A DISTILLARY

MICAJAH CALLAWAY, BROTHER OF FLANDERS, CAPTURED WITH BOONE BY SHAWNEE INDIANS IN 1778 IN KENTUCKY. REMAINED CAPTIVE 5 YEARS.

DANIEL HAYS HAD A WATER MILL, AND AN OXEN-DRIVEN MILL. THE 3-STORY 1834 STONE HOUSE STILL STANDS AND THE HAYS CEMETERY IS ON THE PROPERTY.

BOONE'S GRANDSON DANIEL BOONE HAYS 520 ACRES

STONE HOUSE PROBABLY BUILT BY DANIEL BOONE'S SON DANIEL MORGAN BOONE. FIELD STANDING IN ORIGINAL SITE IN TOWN OF MISSOURI.

2 km

REBECCA BOONE'S FIRST COUSIN JONATHAN BRYAN

LOG HOUSE SITE

STONE HOUSE

STONE HOUSE

STONE HOUSE SITE

BOONE'S DAUGHTER JEMIMA

MARRIED 1779 FLANDERS CALLAWAY

THEIR SPANISH LAND GRANT 800 ARPENTS

300 ARPENTS

400 ARP

LOG CA SITE

PRESENT TOWN OF DEFINANCE

BOONE'S GRANDDAUGHTER JEMIMA HAYS

MARRIED JAMES DAVIS

400 ARPENTS

BOONE'S GRANDDAUGHTER ELIZABETH HAYS

MARRIED ISAAC VAN BIBBER

400 ARPENTS

DAVID BOONE'S LOG CABIN SITE

AMERICAN TRAIL WEST BOONE TRACE (1807)

DANIEL MORGAN BOONE'S HOUSE

ISAAC DAVIS' LOG HOUSE

DANIEL & REBECCA STAYED IN DANIEL MORGAN BOONE'S HOUSE WITH HIM 1799-1805

BOONE FORT DURING THE WAR OF 1812

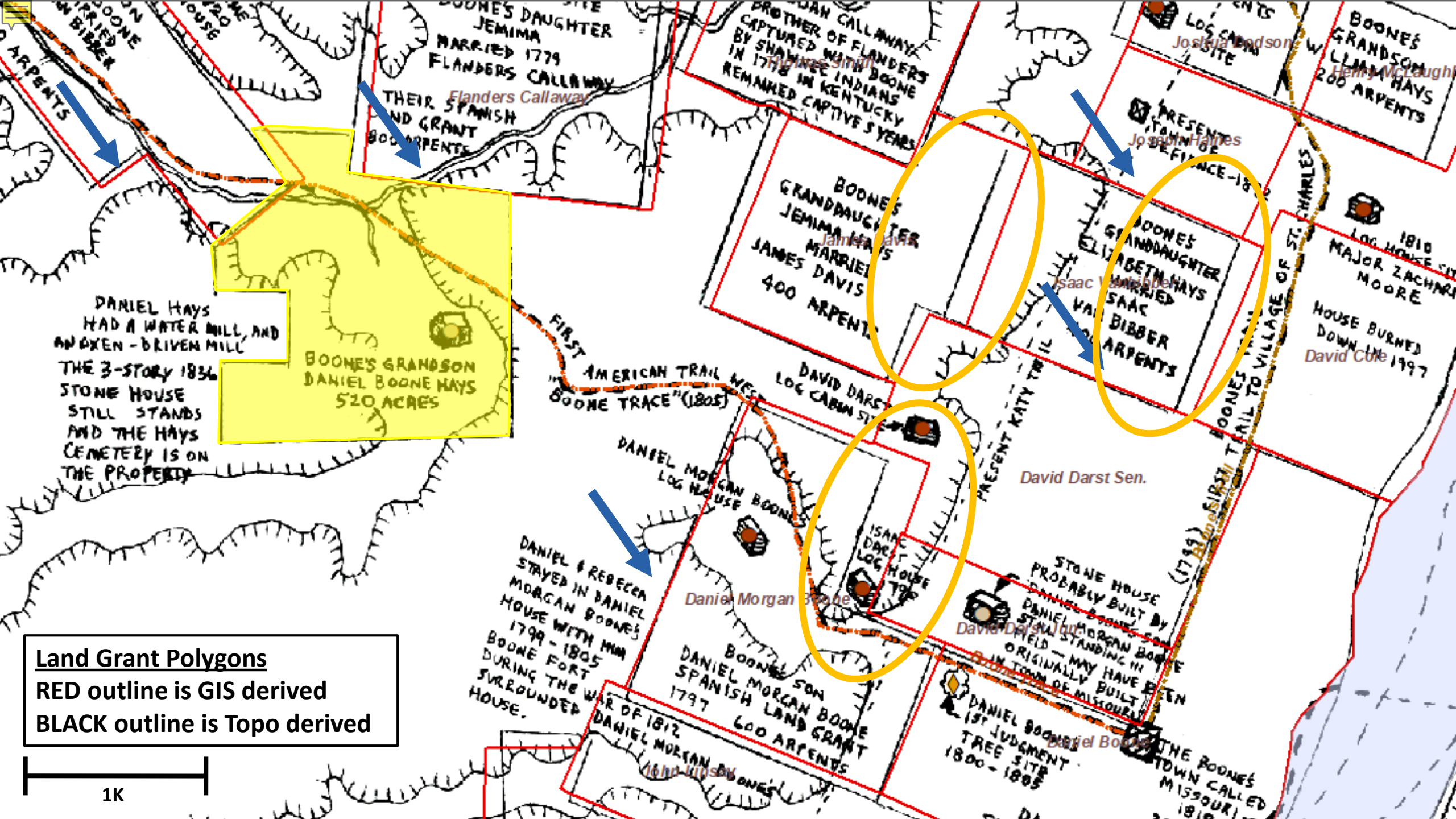
DANIEL MORGAN BOONE'S SPANISH LAND GRANT 1797

600 ARPENTS

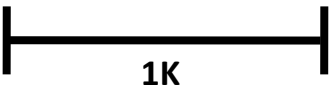
DANIEL BOONE'S 1ST JUDGMENT TREE SITE 1800

THE...





**Land Grant Polygons**  
 RED outline is GIS derived  
 BLACK outline is Topo derived



DANIEL HAYS HAD A WATER MILL, AND AN AXEN-DRIVEN MILL. THE 3-STORY 1836 STONE HOUSE STILL STANDS AND THE HAYS CEMETERY IS ON THE PROPERTY.

BOONE'S GRANDSON DANIEL BOONE HAYS 520 ACRES

BOONE'S DAUGHTER JEMIMA MARRIED 1779 FLANDERS CALLAWAY THEIR SPANISH GRANT 800 ARPENTS

BOONE'S GRANDDAUGHTER JEMIMA HAYS MARRIED JAMES DAVIS 400 ARPENTS

BOONE'S GRANDDAUGHTER ELIZABETH HAYS MARRIED SAAC BIBBER 400 ARPENTS

DANIEL MORGAN BOONE'S LOG HOUSE 1799-1805 BOONE FORT DURING THE WAR OF 1812 DANIEL MORGAN BOONE'S HOUSE. DANIEL & REBECCA STAYED IN DANIEL MORGAN BOONE'S HOUSE WITH HIM 1799-1805

ISAAC DARST LOG HOUSE 1799

STONE HOUSE PROBABLY BUILT BY DANIEL BOONE'S SON DANIEL MORGAN BOONE STILL STANDING IN ORIGINAL SITE. DANIEL BOONE'S 1ST JUDGMENT TREE SITE 1800-1805

1810 LOG HOUSE SITE MAJOR ZACHARIAH MOORE HOUSE BURNED DOWN IN 1997

BOONE'S GRANDSON WILLIAM HAYS 200 ARPENTS

DAN CALLAWAY BROTHER OF FLANDERS CAPTURED WITH BOONE BY SHAWNEE INDIANS IN 1778 IN KENTUCKY REMAINED CAPTIVE 5 YEARS

LOG CABIN SITE PRESENTS TOWN OF DANIEL BOONE

BOONE'S TRAIL TO VILLAGE OF ST. CHARLES

PRESENT KATY TRAIL

David Darst Sen.

Daniel Morgan

David Darst

Daniel Boone

Joseph Anderson

Henry McLaughlin

James Smith

James Davis

Isaac Bibber

Log Cabin Site

David Cole

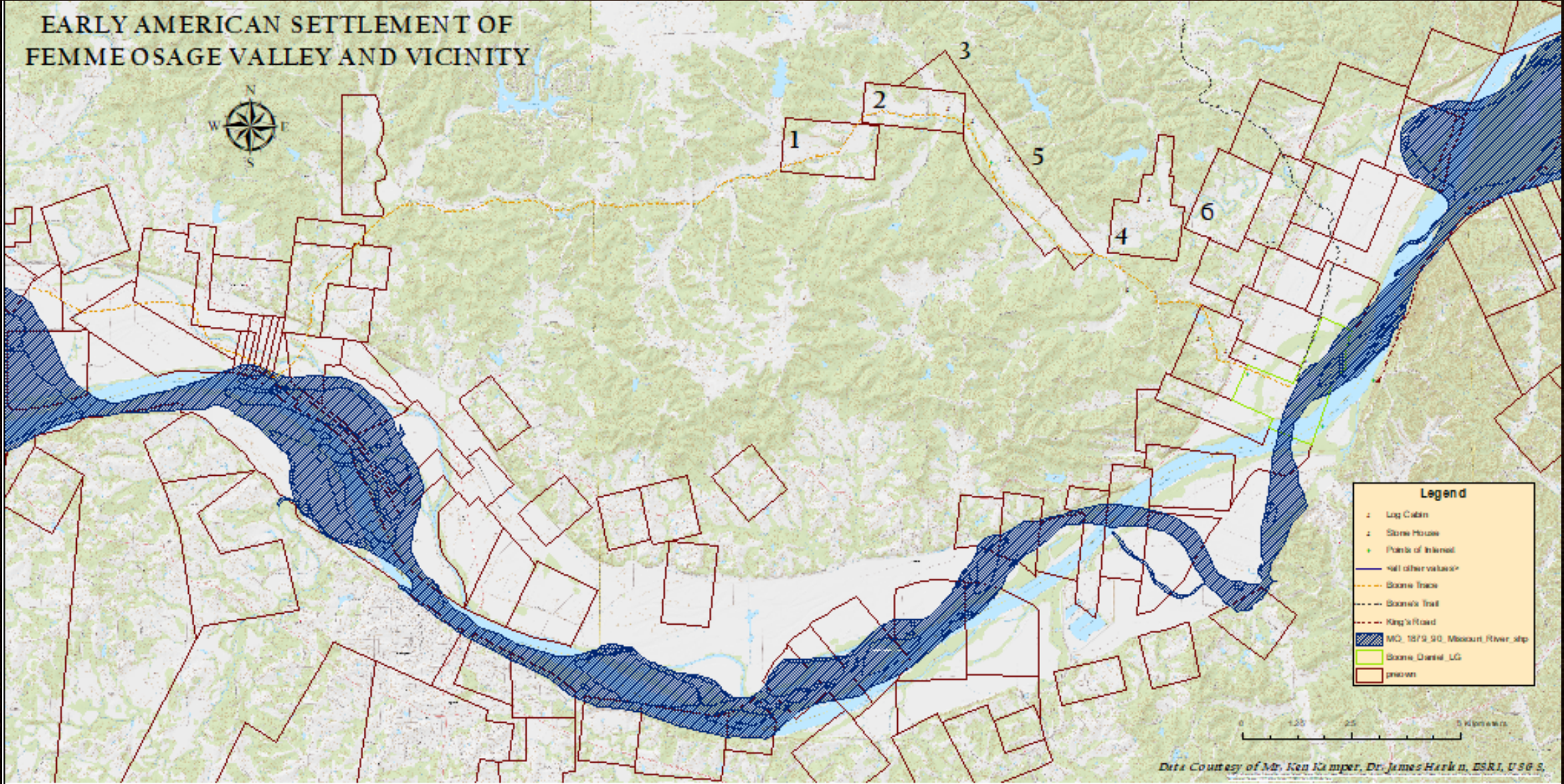
1800-1805

1810

1810

1810

# Final Product



# Common Map Layers

## BASEMAP

- Imagery
- Transportation
- Hillshade

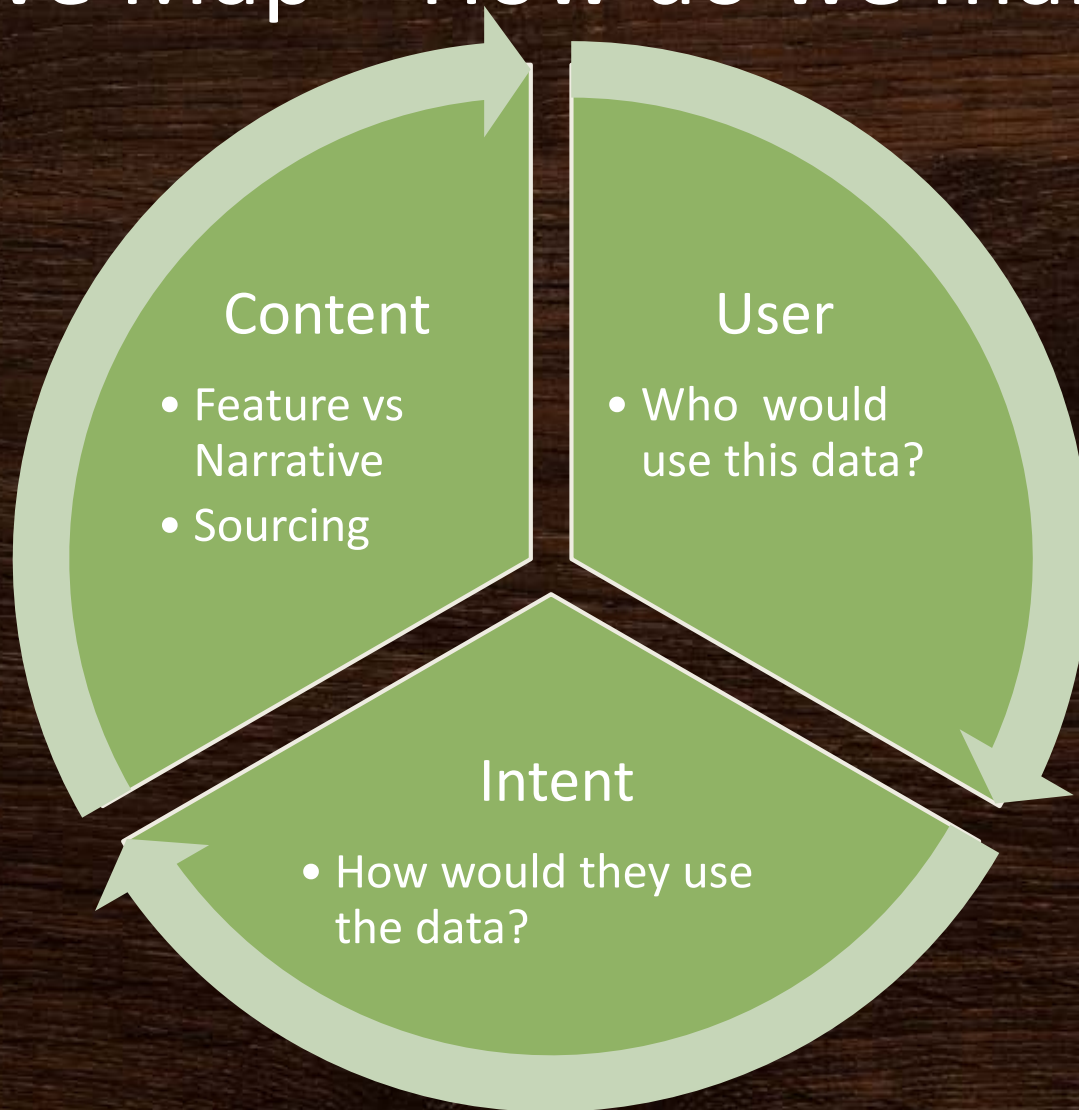
## THEMATIC

- Land Grants
- Early Colonization boundaries
- Trails
- Indian Nations
- Slave Homes
- Cemeteries
- Lewis & Clark
- Points of Interest

## INTERACTIVE

- Land Grants
- Houses
- Points of Interest

# Interactive Map – How do we make this go?



# Interactive Map – Recommendations



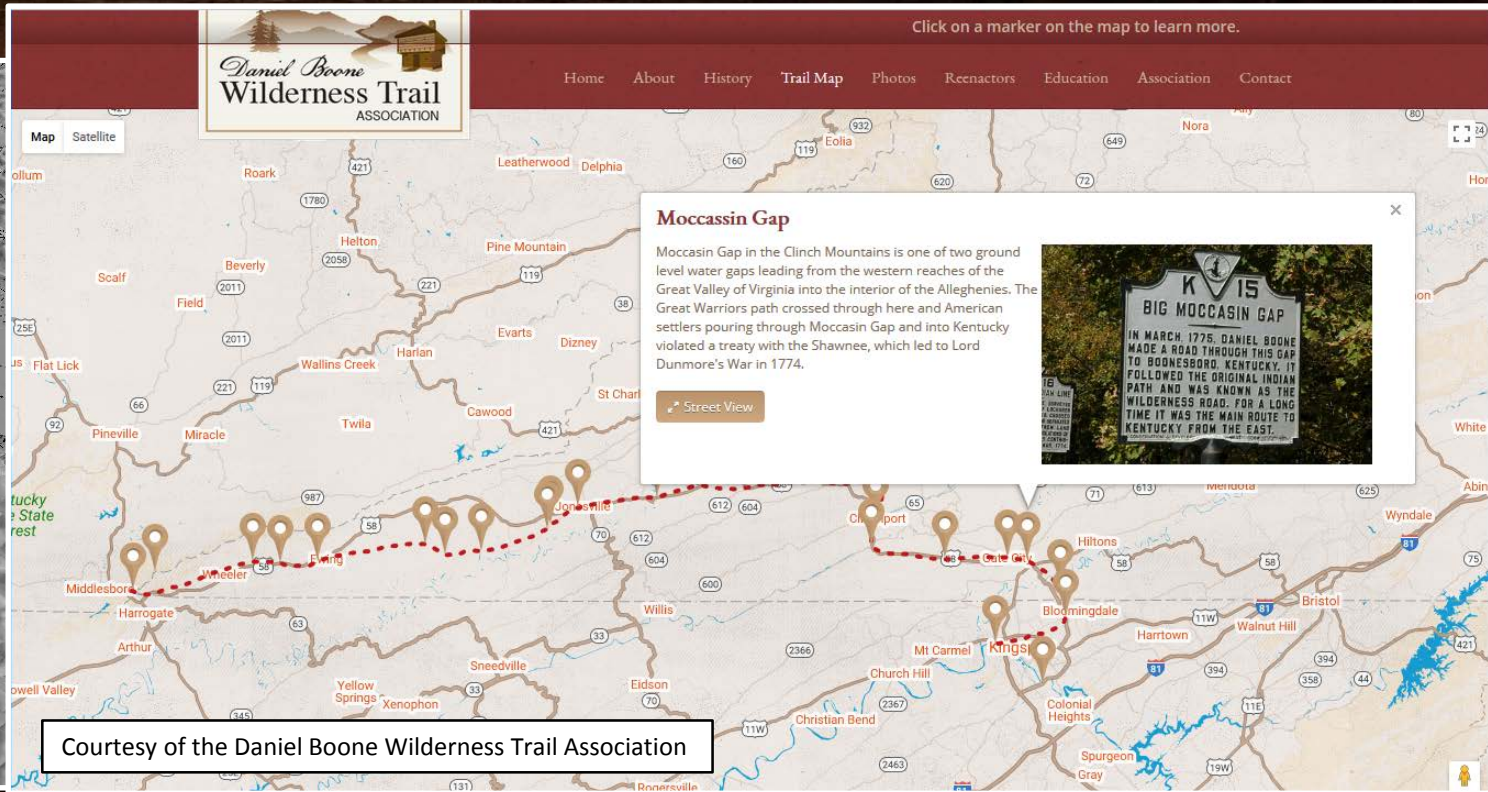
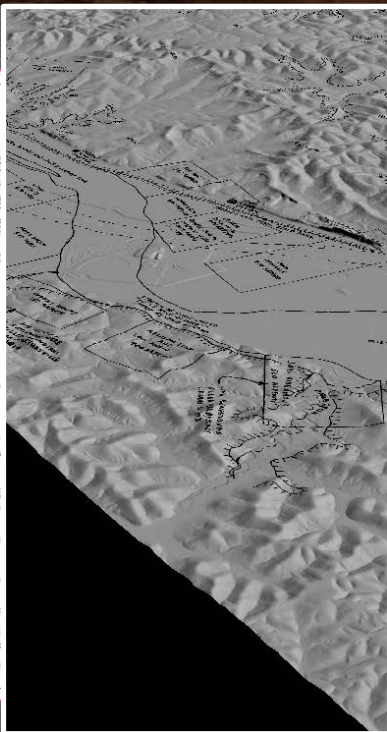
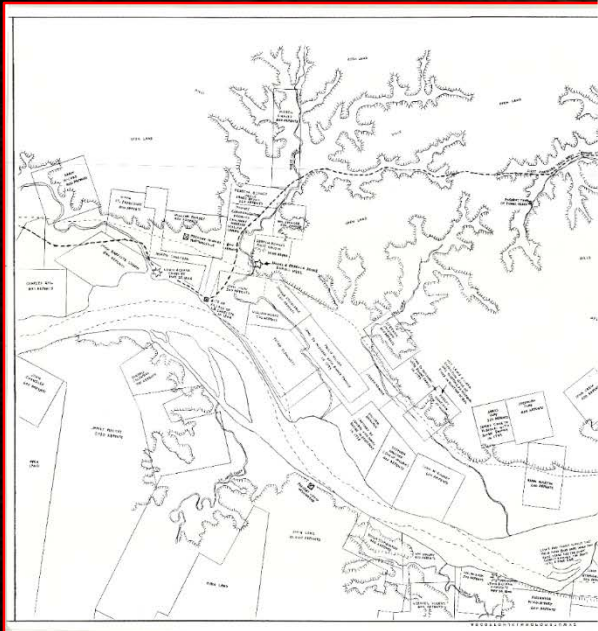
- User
- Intent
- Content

- Evaluate Methods
- Identify Best Practices

- Primary Content
- Supporting Content
- Symbology
- Design

# Objectives

- Determine viability to tie hand drawn map to real world locations
- Develop a physical display that maintains the integrity of the source map
- Construct the framework & pilot project of an interactive map based on source map



Courtesy of the Daniel Boone Wilderness Trail Association



# Project Limitations

## Time

- Research/Investigation
- Implementation

## Data Accuracy

- Conflicting Sources

## Amount of Data

- Number of Sources
- File Size

## Third Party

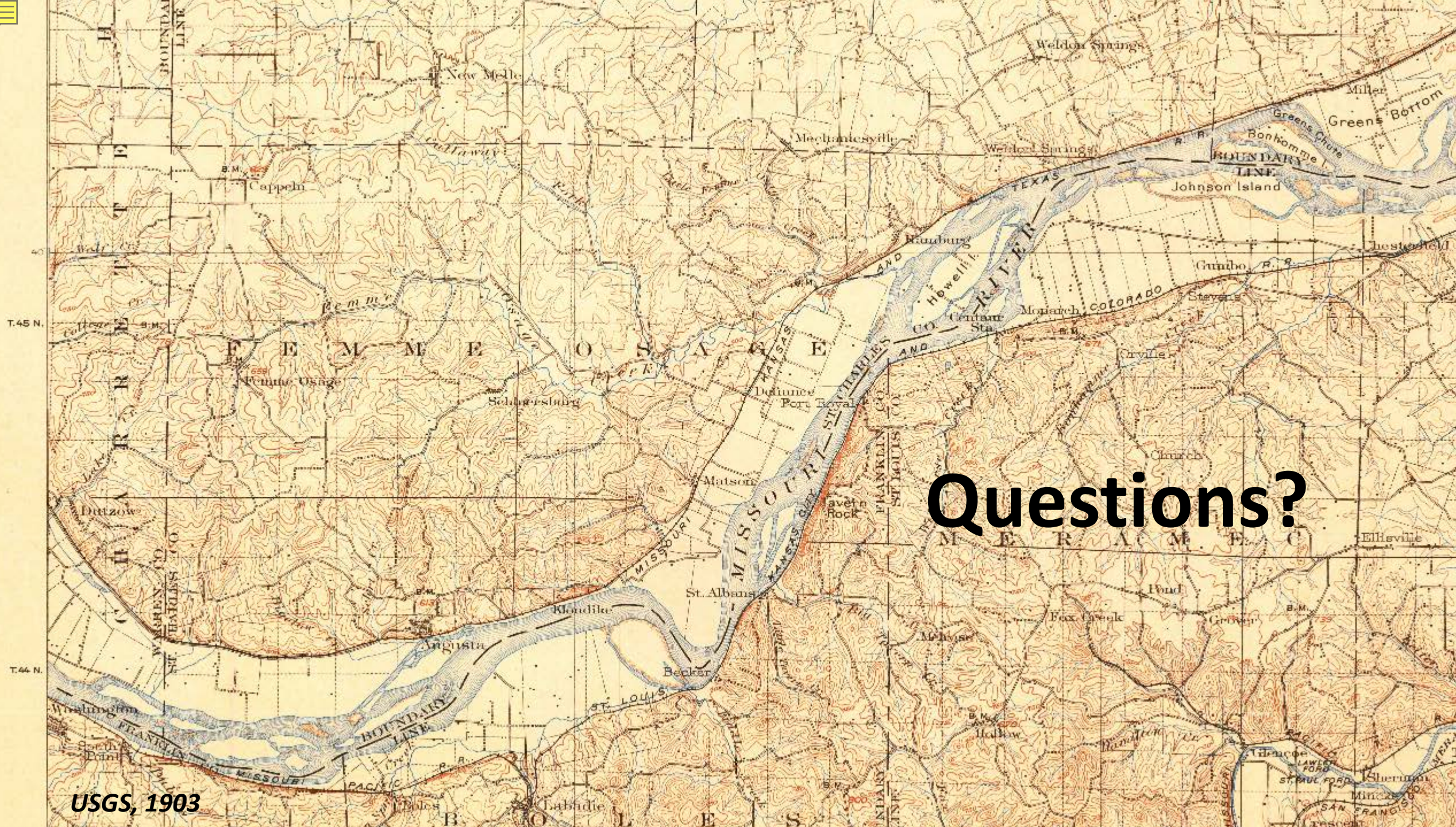
- Print Time
- Existing Data Services

# Projected Timeline

	2017	2018			
	Dec	Jan	Feb	Mar	Apr
<b>Physical</b>	Draft Geotiff	Finalize Geotiff	Send to Printer	Print	Deliver
<b>Pilot Project</b>	Determine Platform	Draft Site	Refine Site	Finalize Site	Present
<b>Recommendations</b>	Formalize Parameters and Initial Carto Assessment	Assess Collection Methods	Finalize Cartographic Assessment	Drafting Write-Up	Deliver

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Questions?