

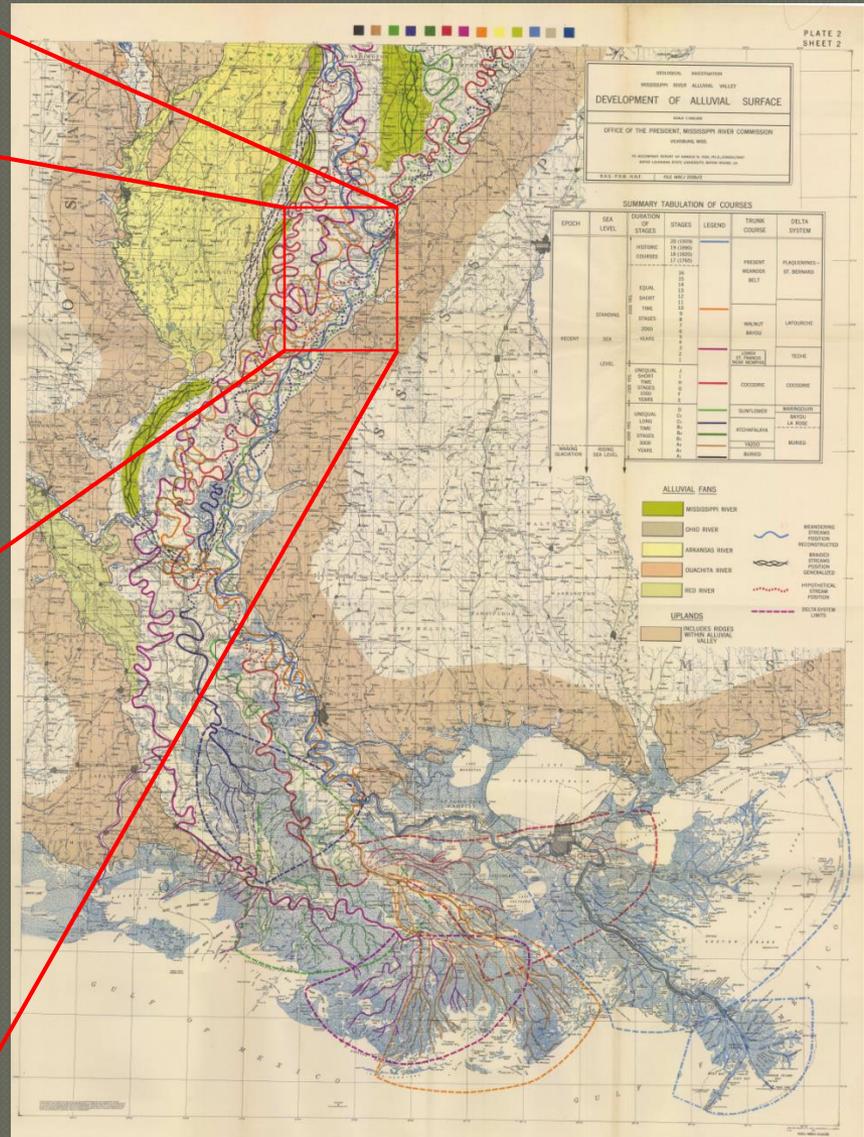
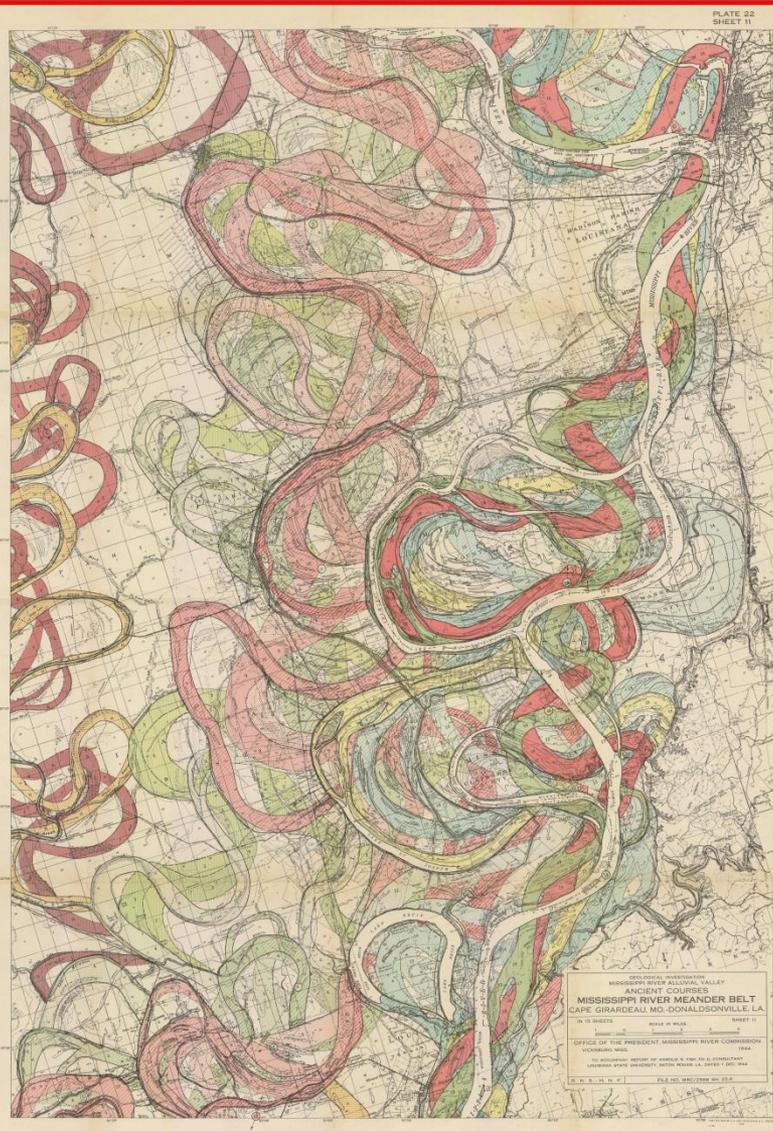
# Mississippi River Diversions and Avulsions

“One who knows the Mississippi will promptly aver - not aloud, but to himself - that ten thousand River Commissions, with the mines of the world at their back, cannot tame that lawless stream, cannot curb it or confine it, cannot say to it, Go here, or Go there, and make it obey; cannot save a shore which it has sentenced; cannot bar its path with an obstruction which it will not tear down, dance over, and laugh at. ... the Commission might as well bully the comets in their courses and undertake to make them behave, as try to bully the Mississippi into right and reasonable conduct.”

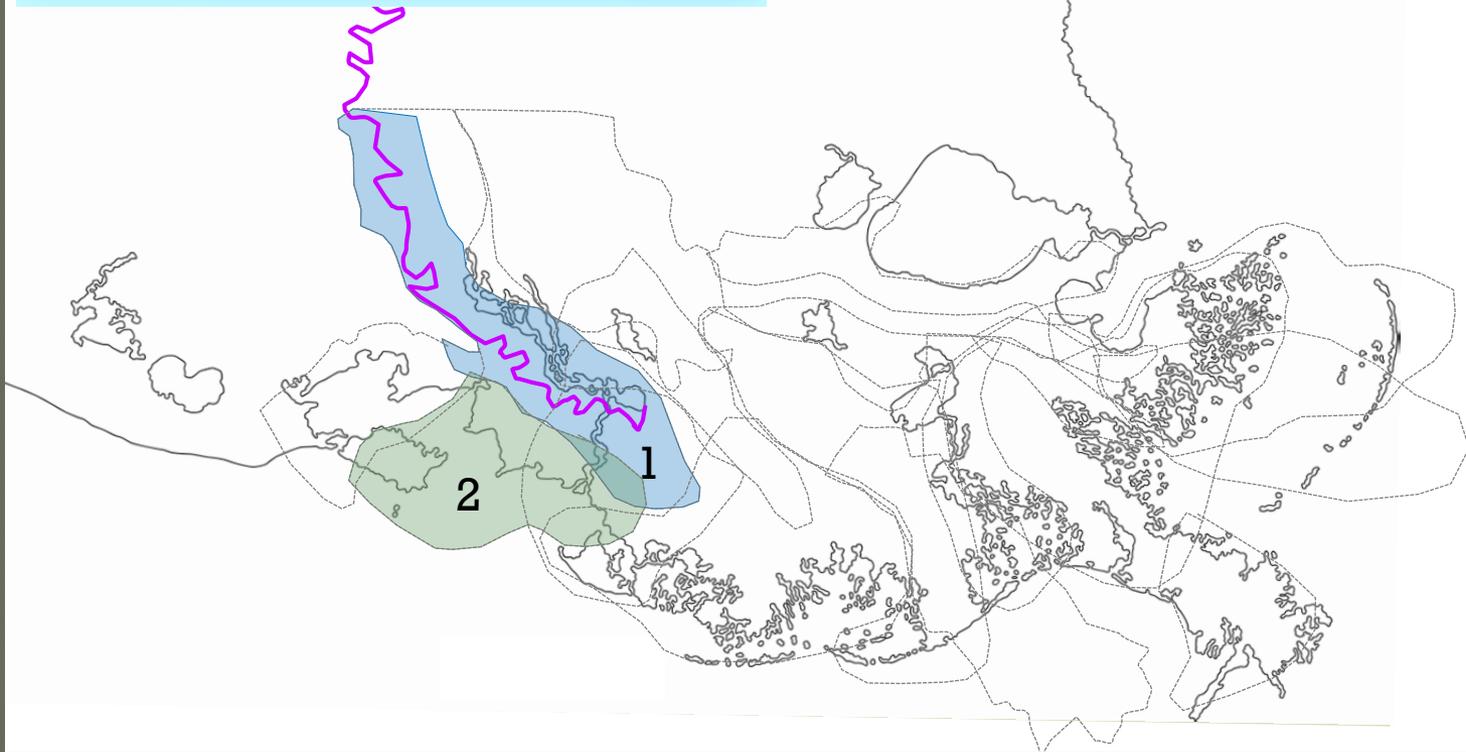
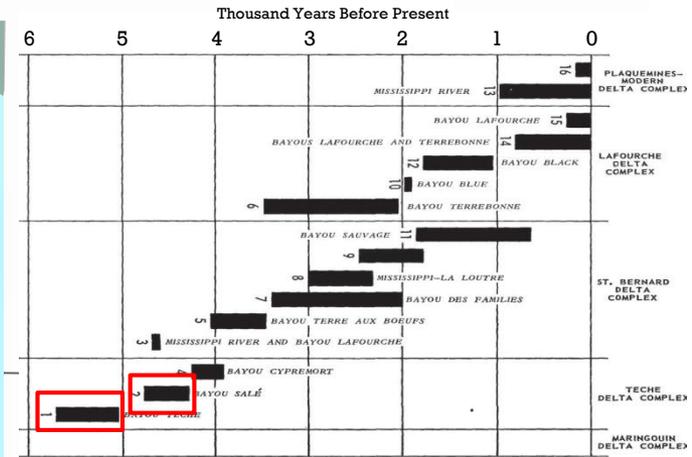
Mark Twain  
Life on the Mississippi  
1883

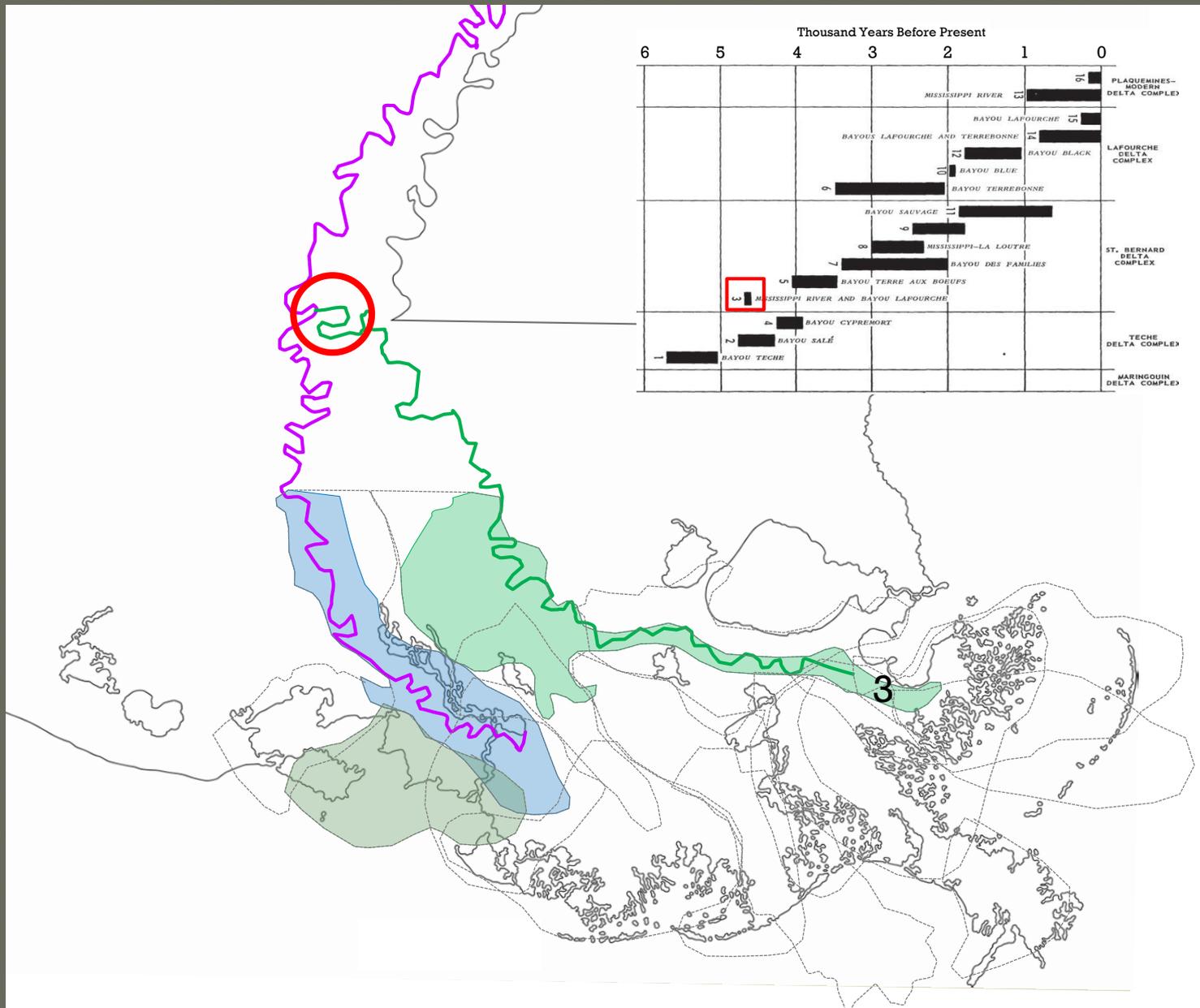
# Fisk Report

Geological Investigation of the Alluvial Valley of the Lower Mississippi River, Report to the Mississippi River Commission, Fisk, H.N., 1944,

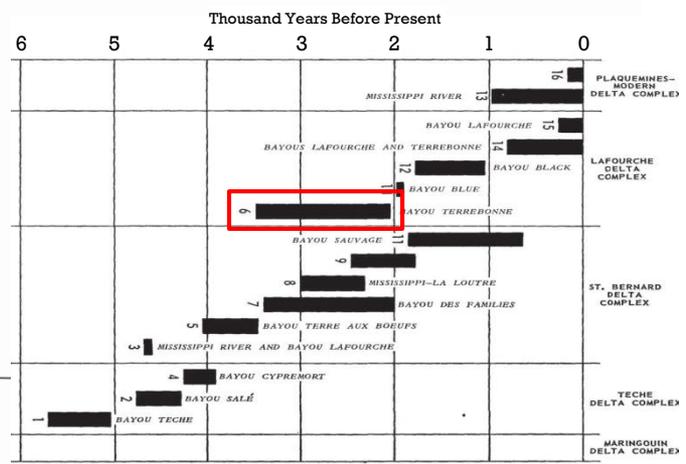
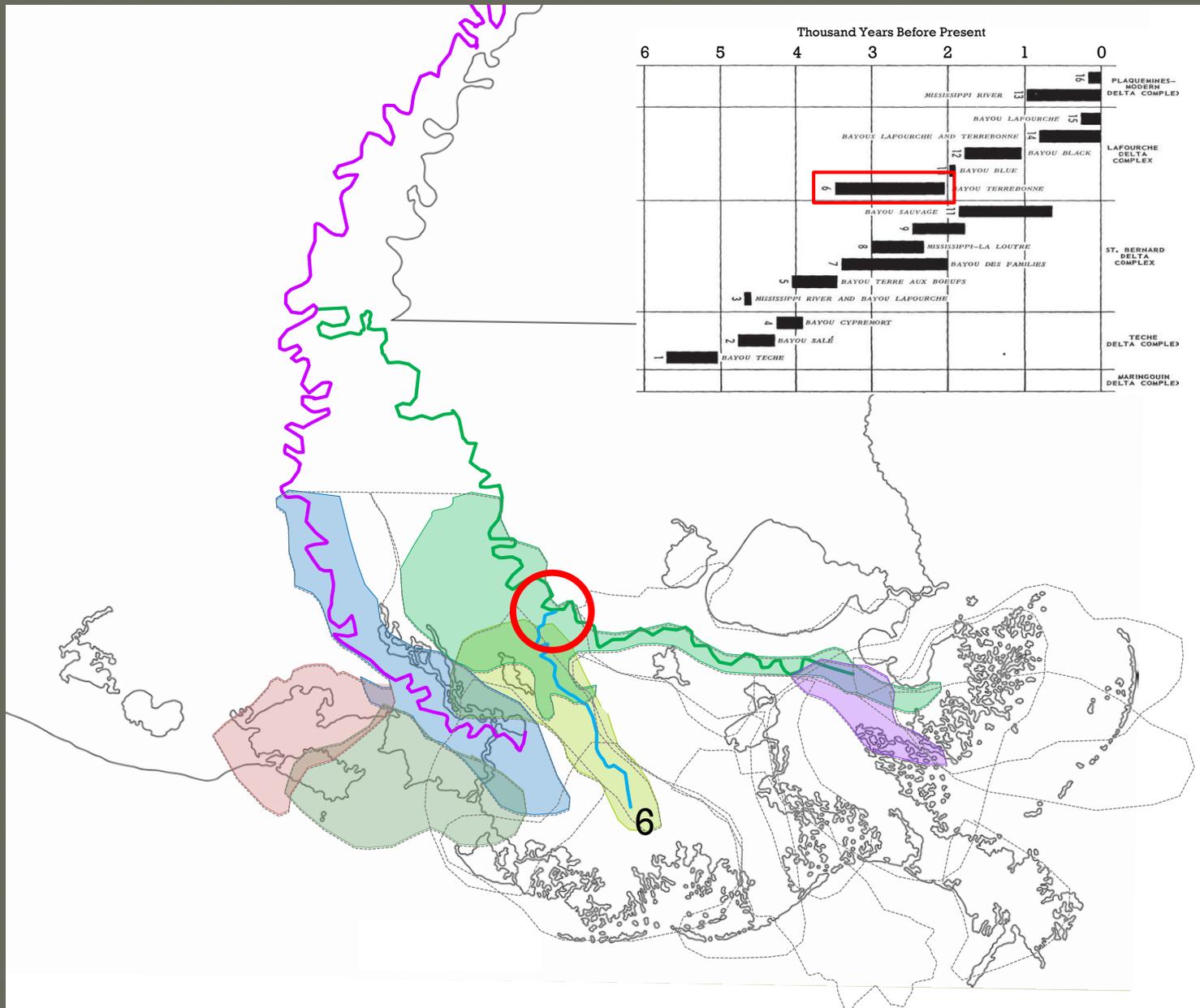




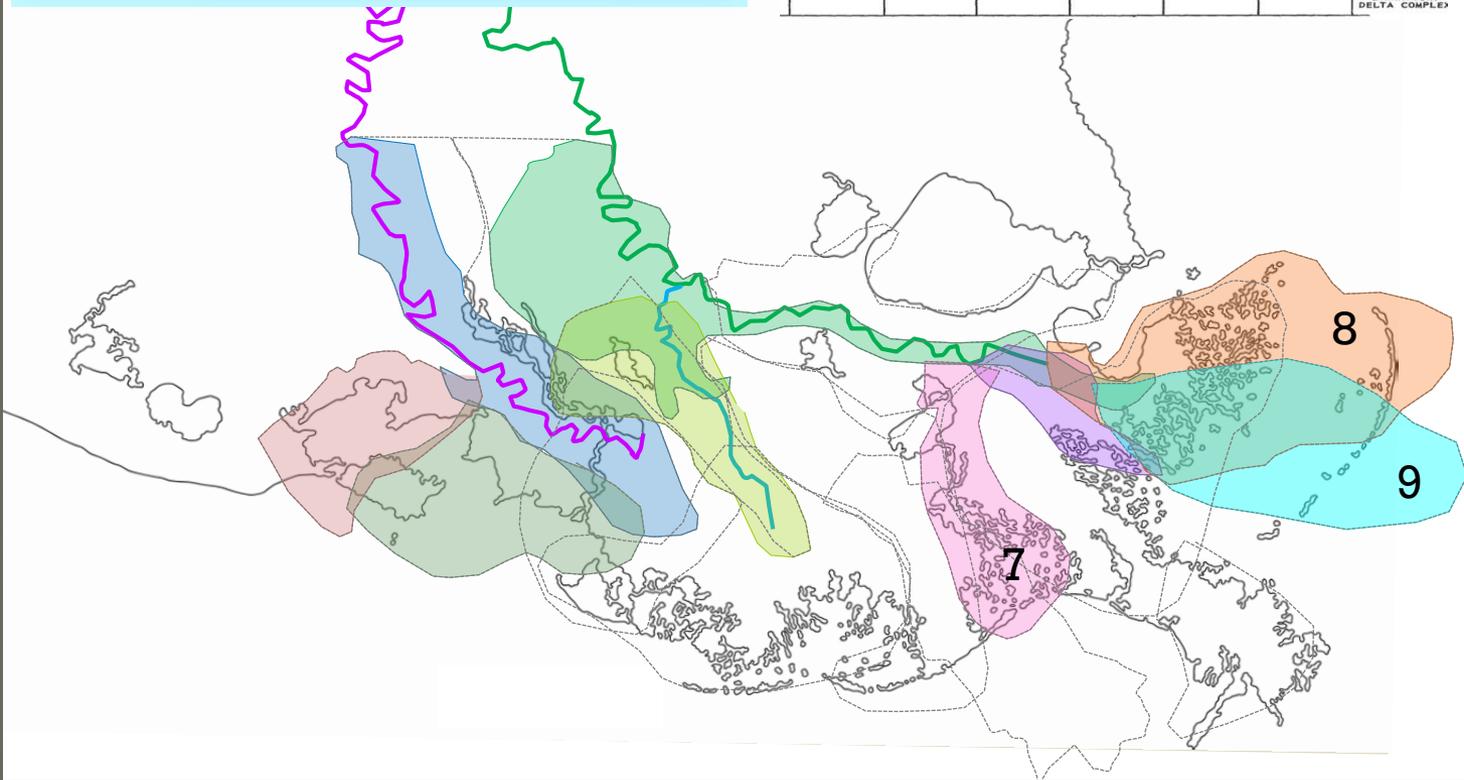
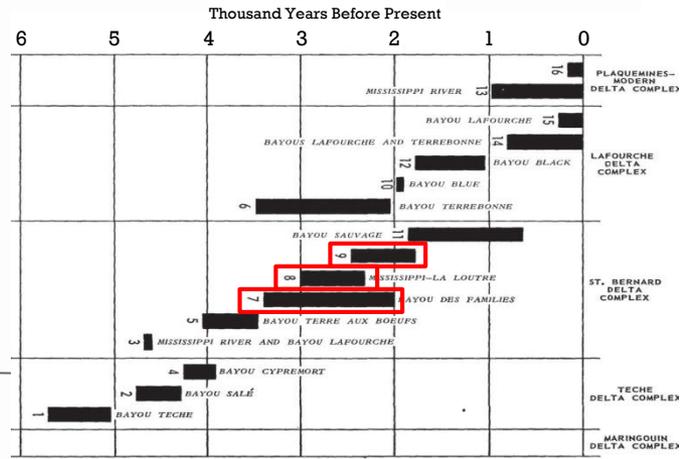


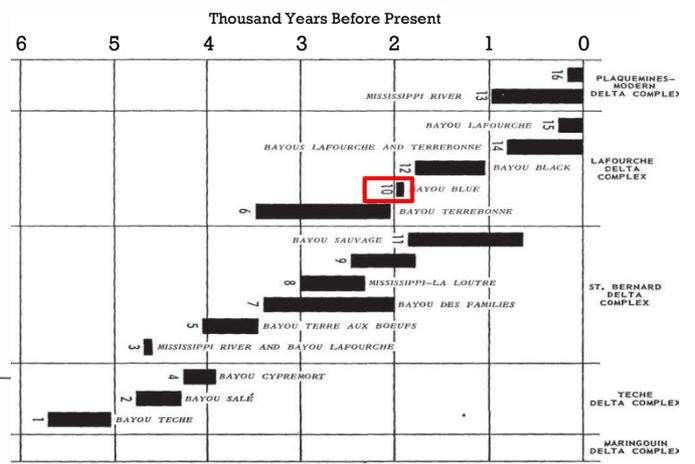
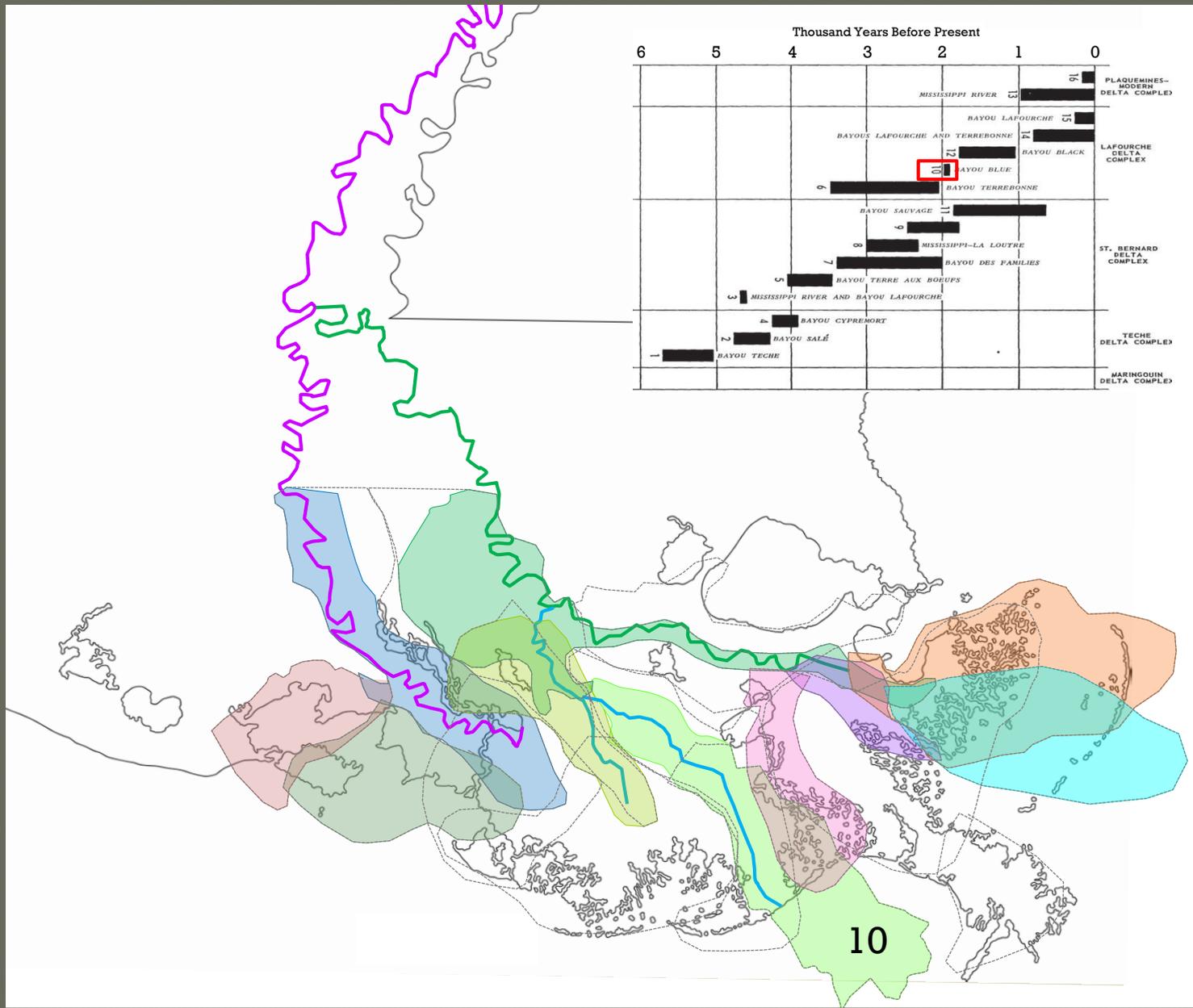


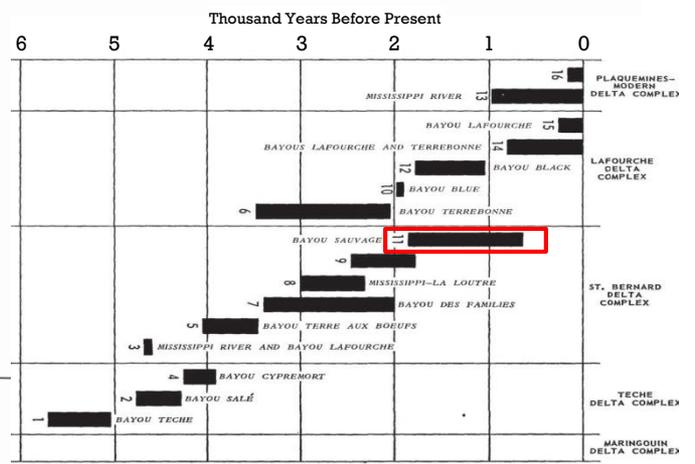
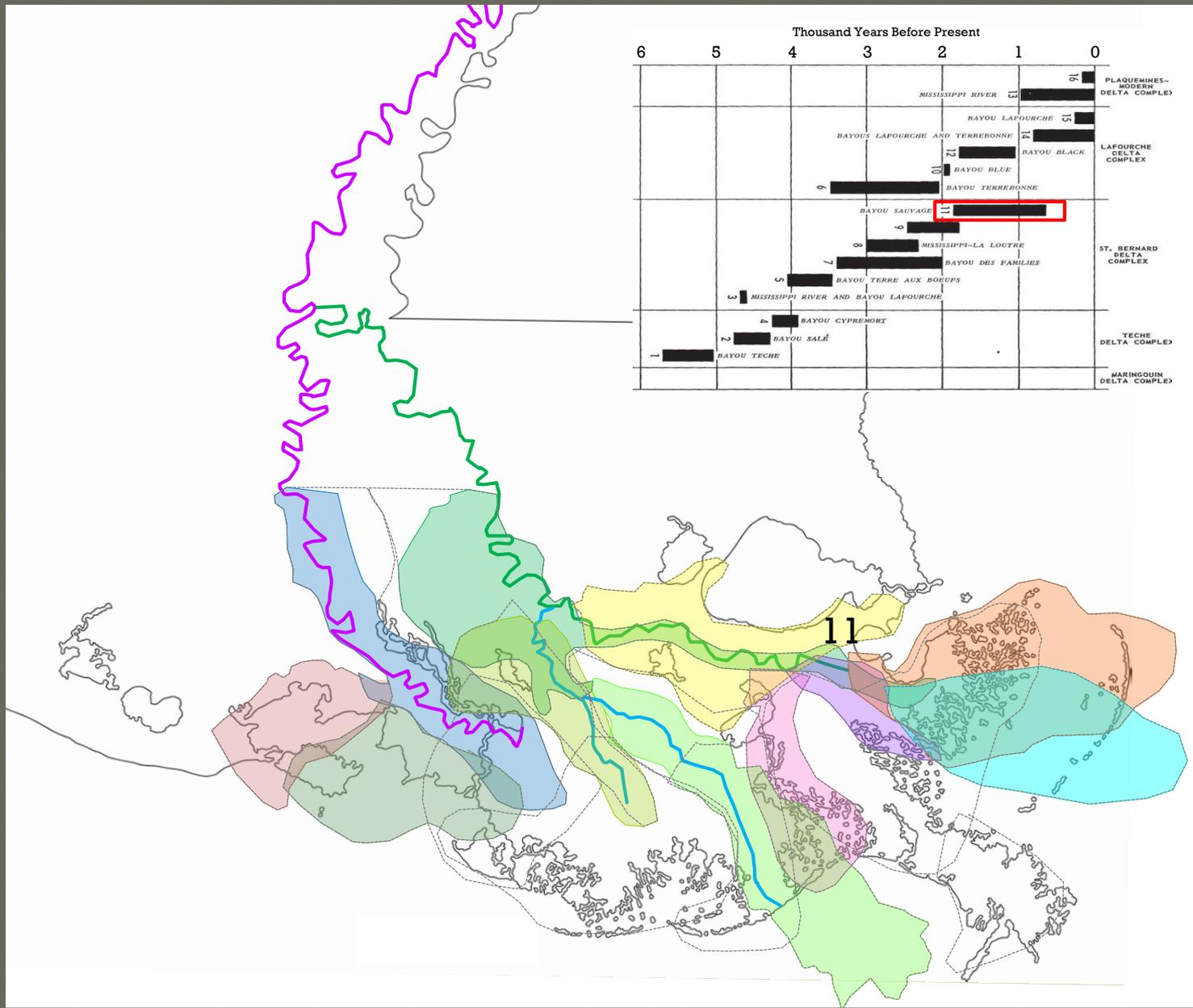


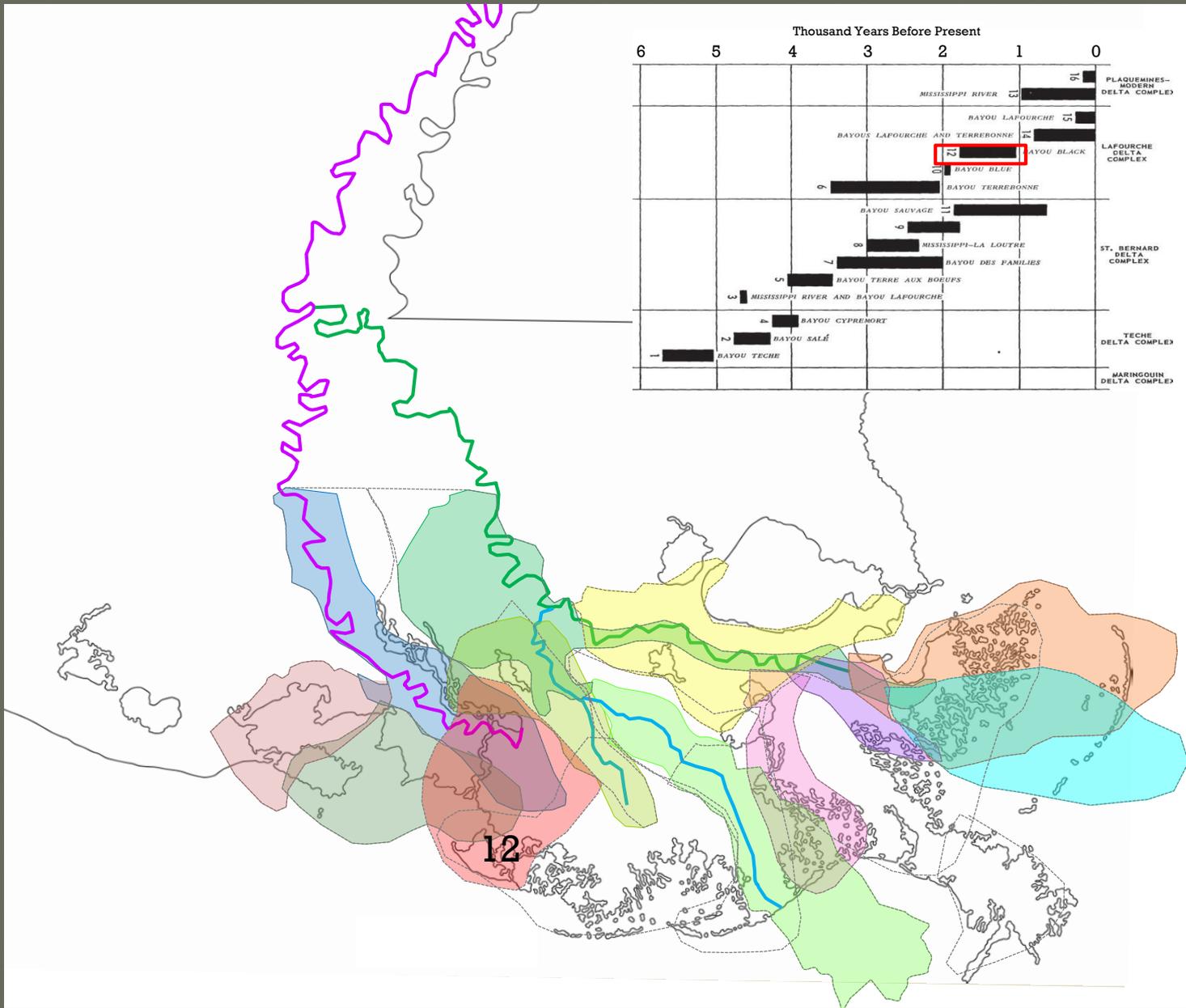


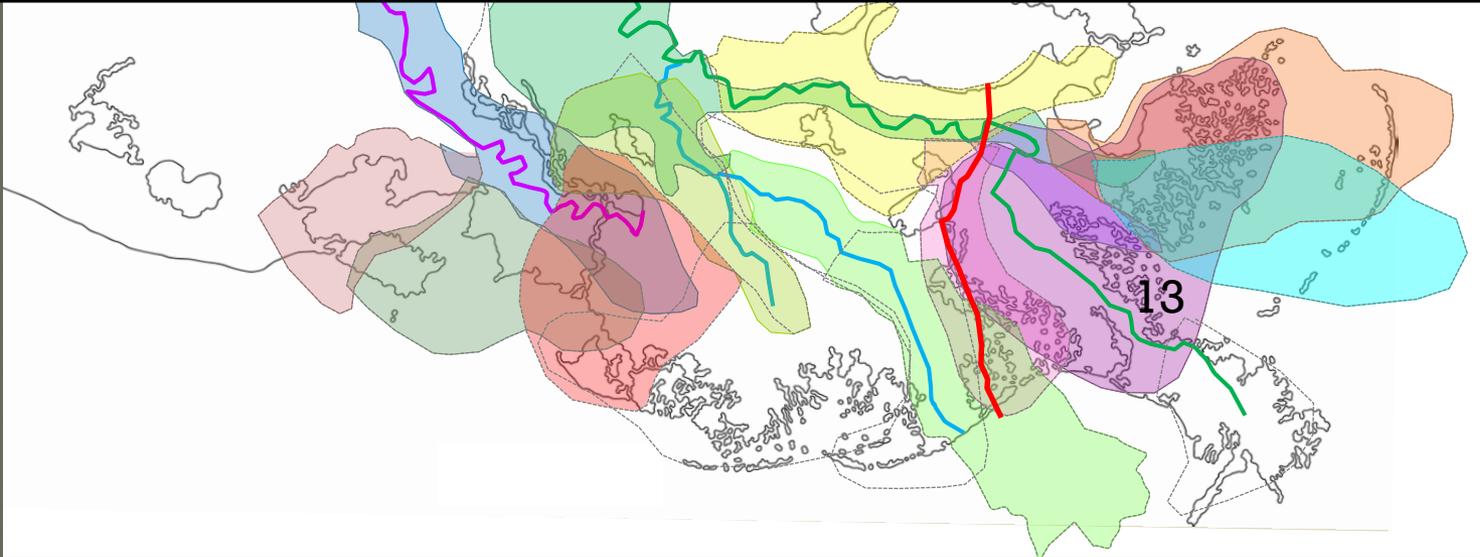
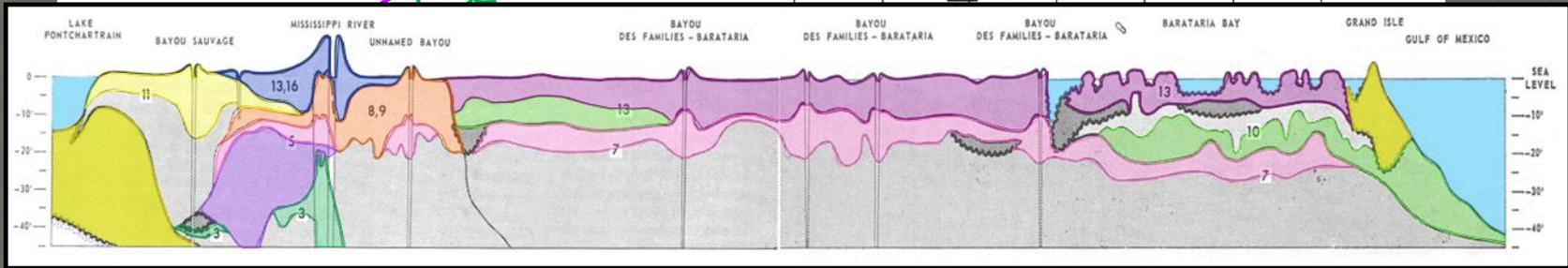
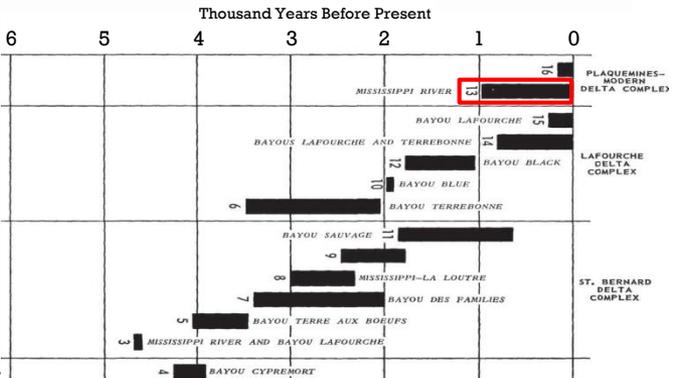
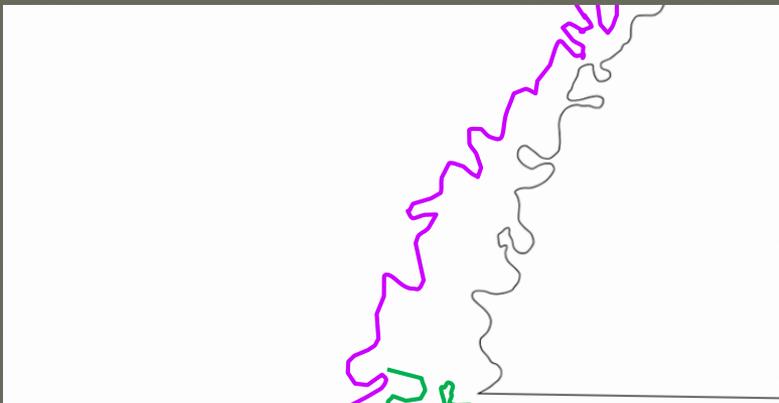
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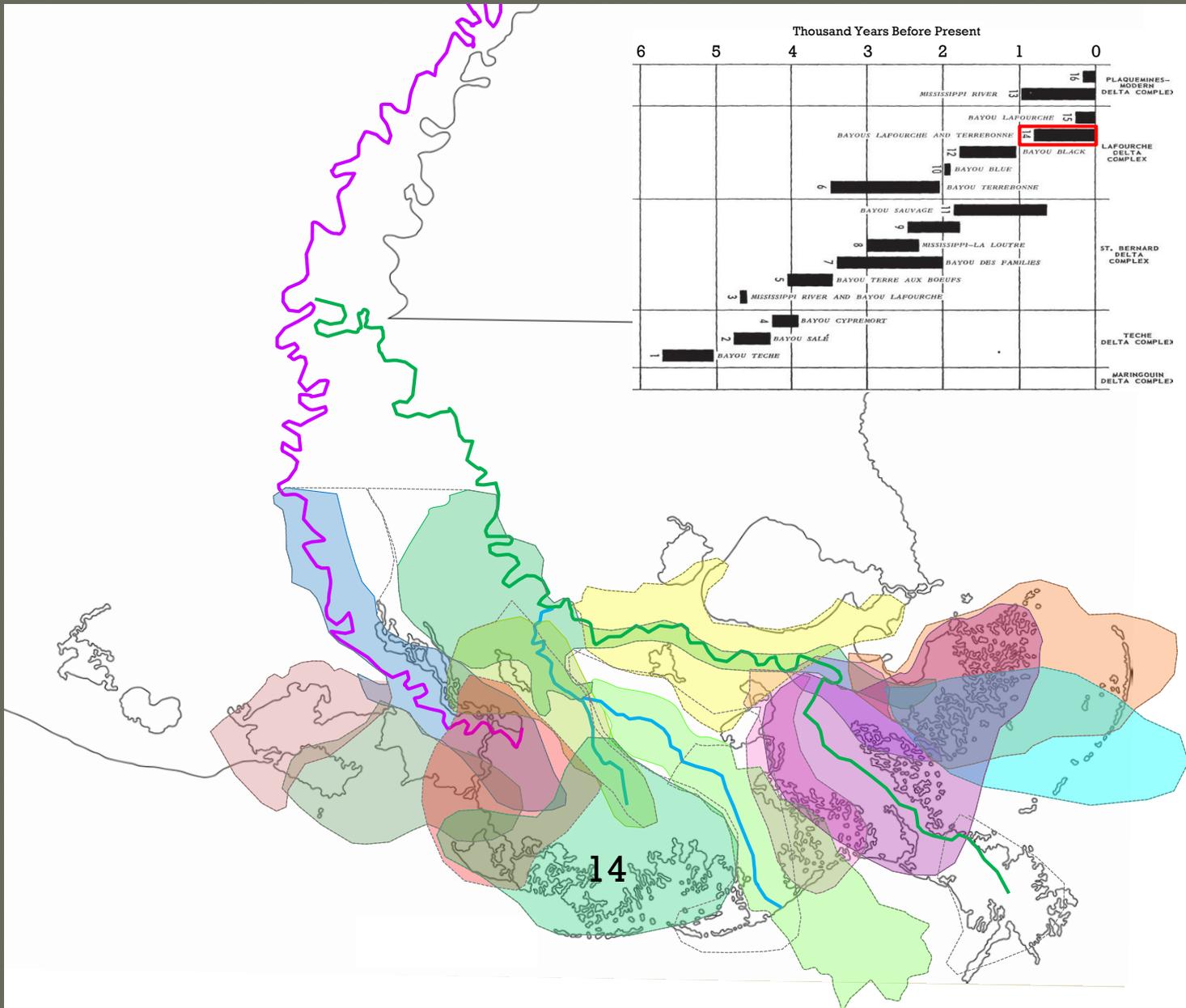


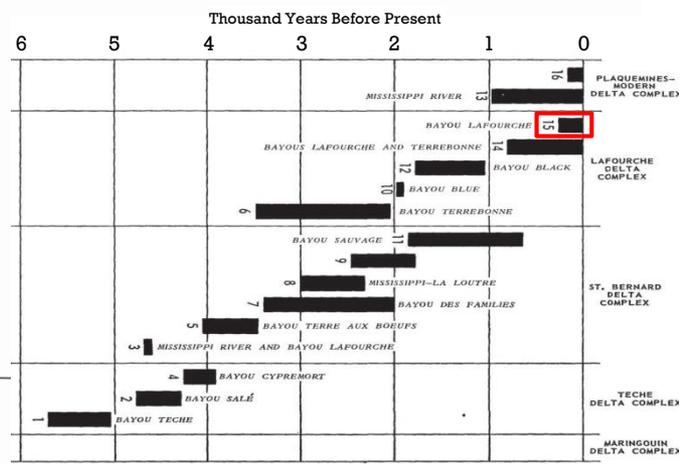
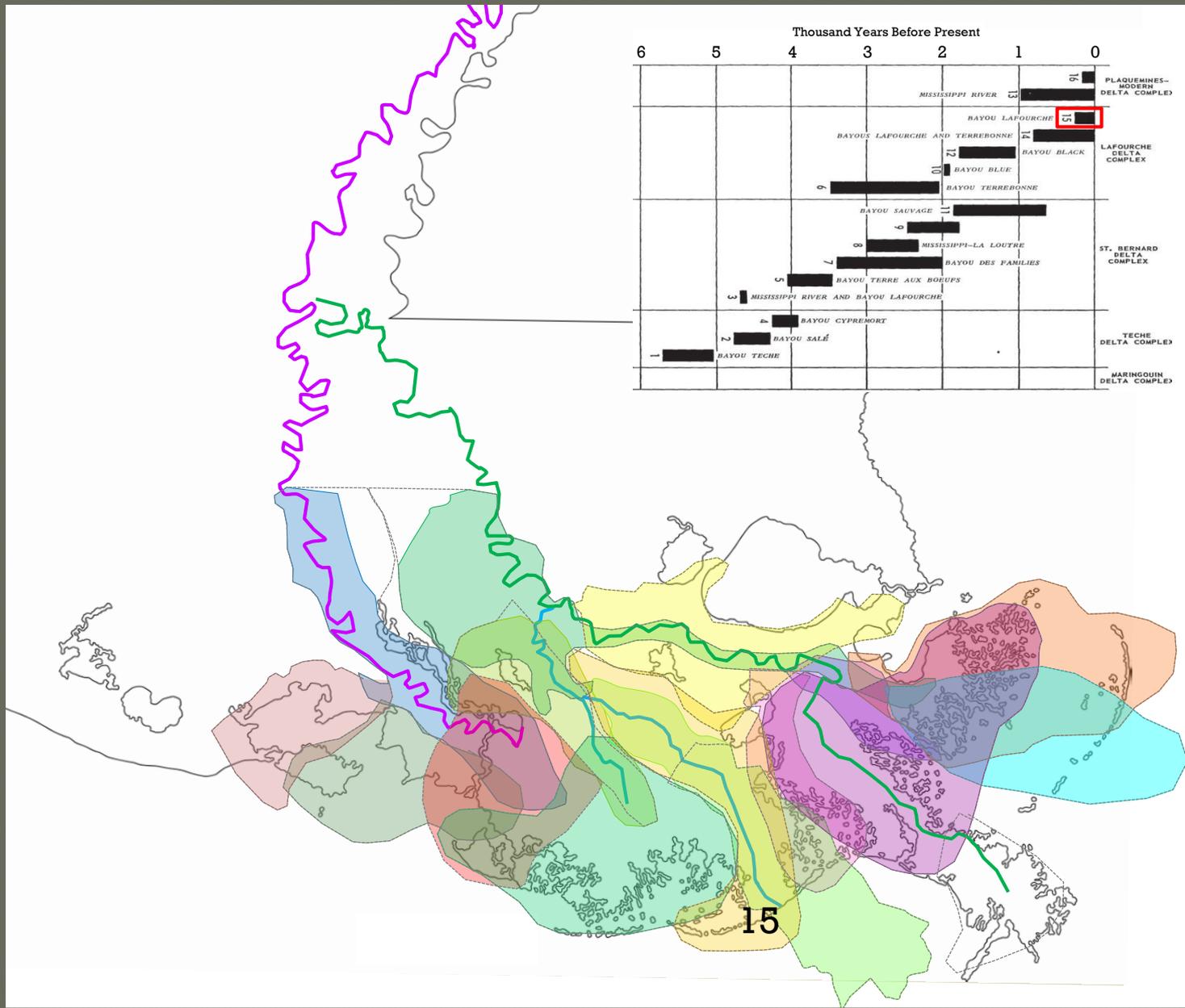




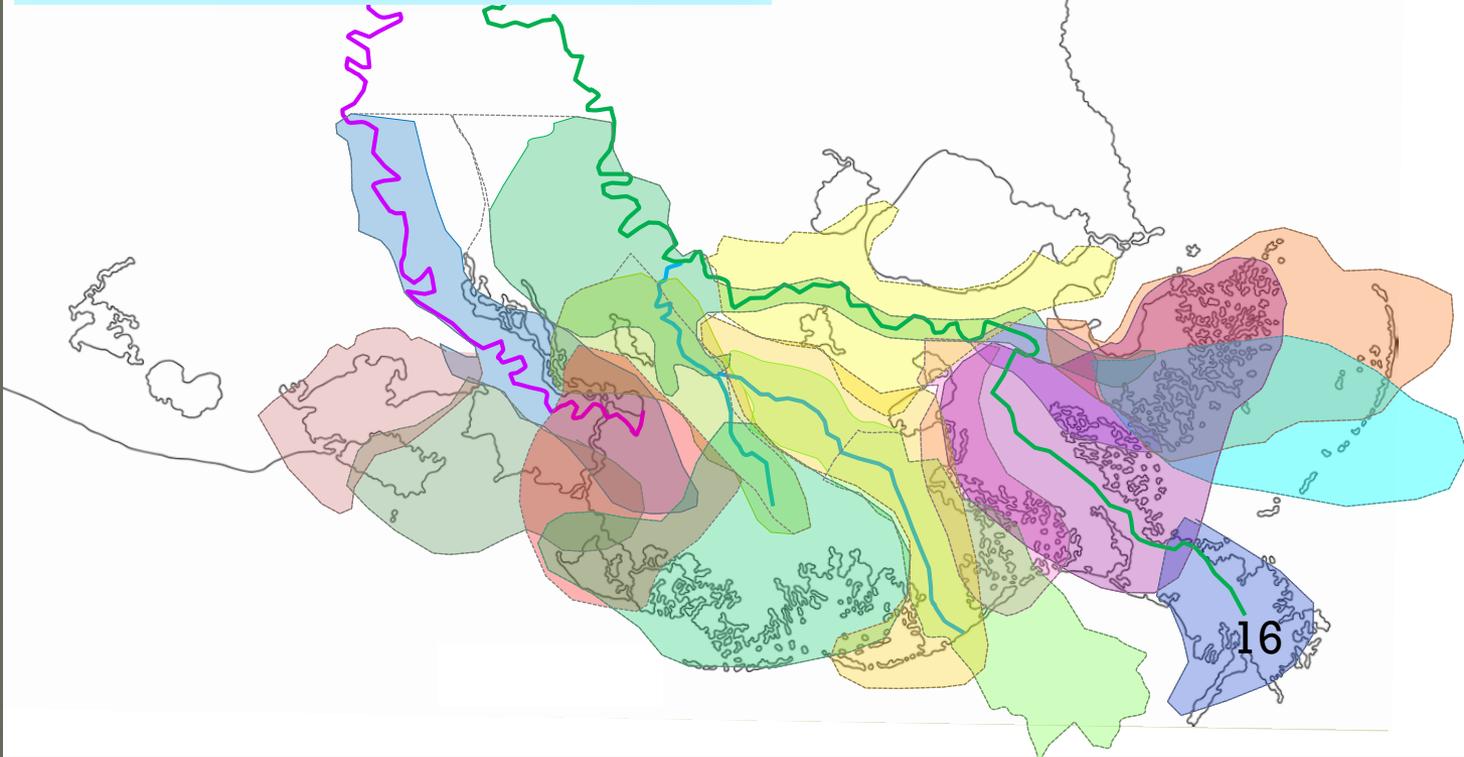
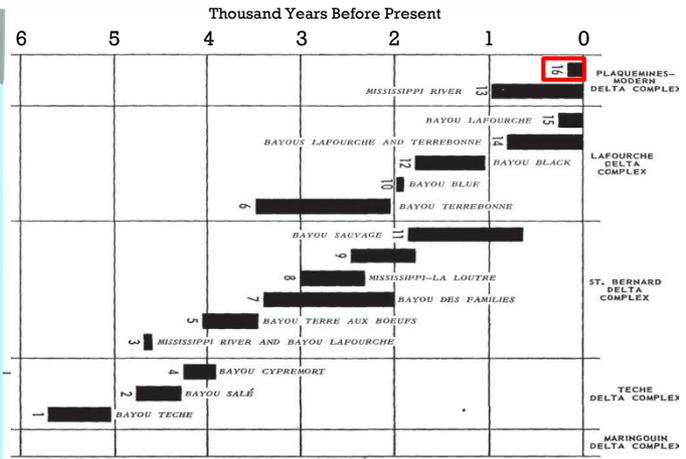


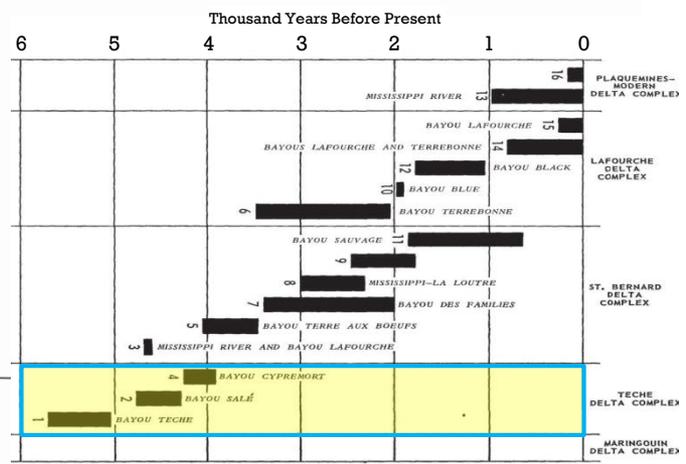
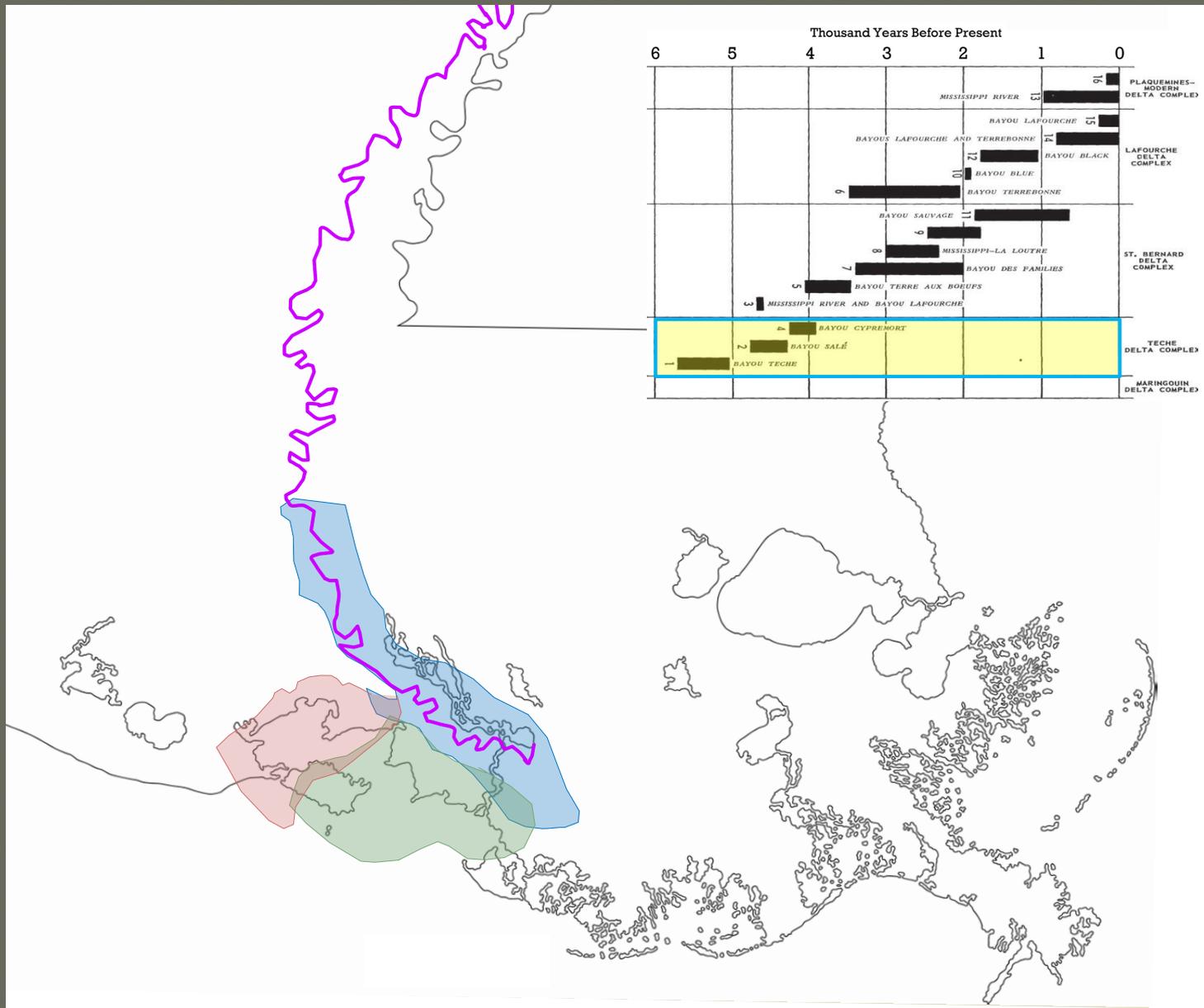


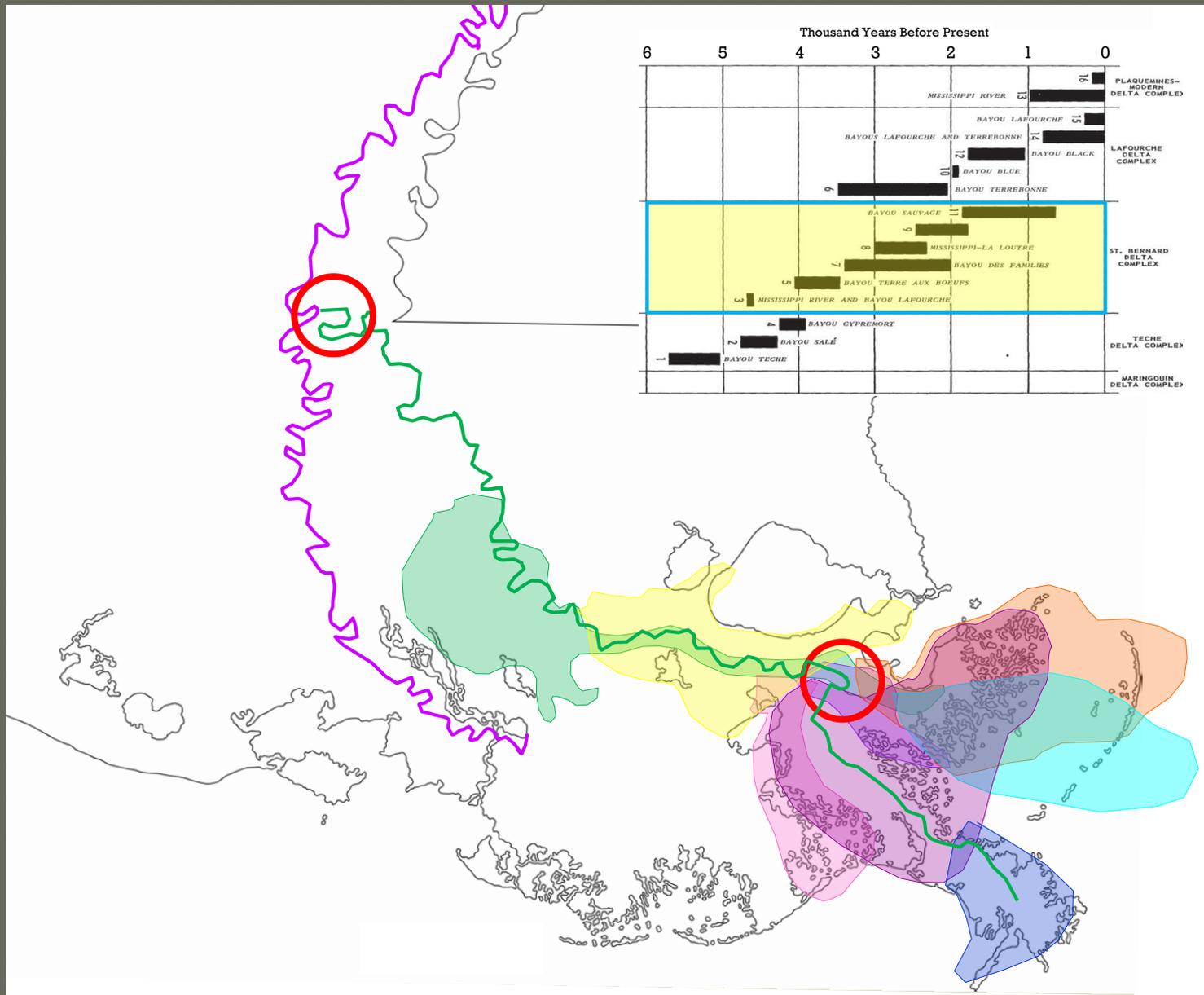




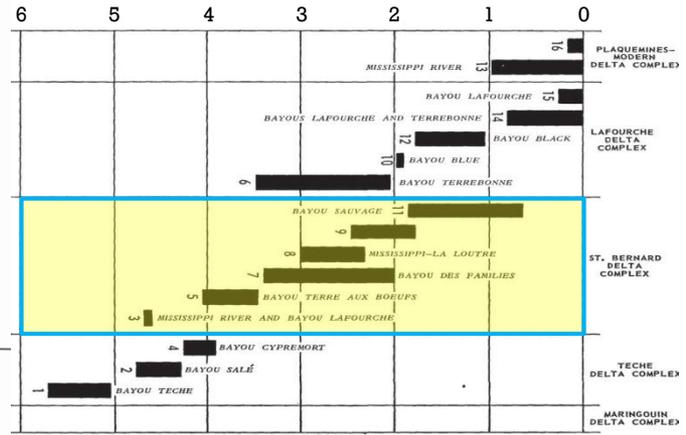
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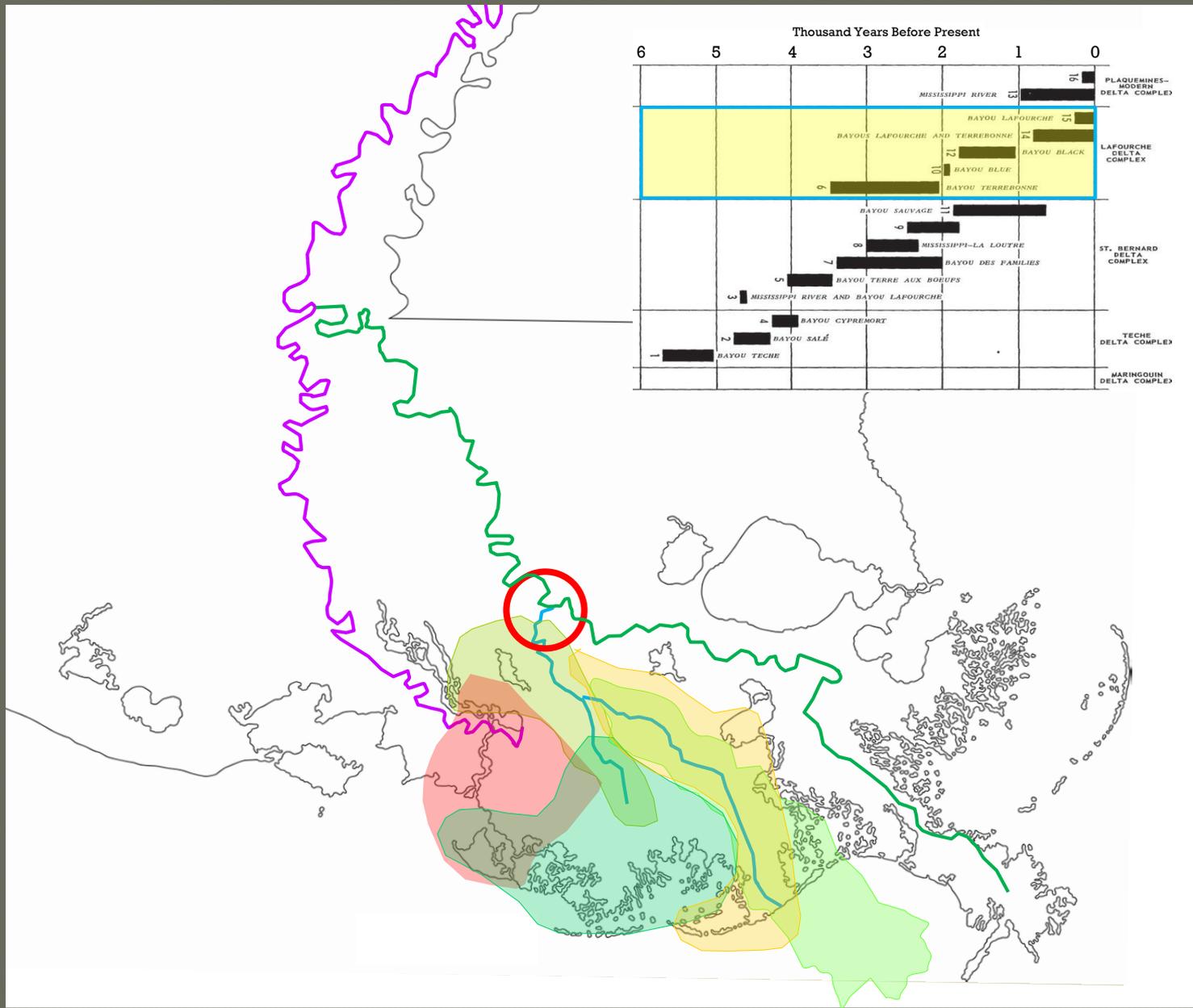


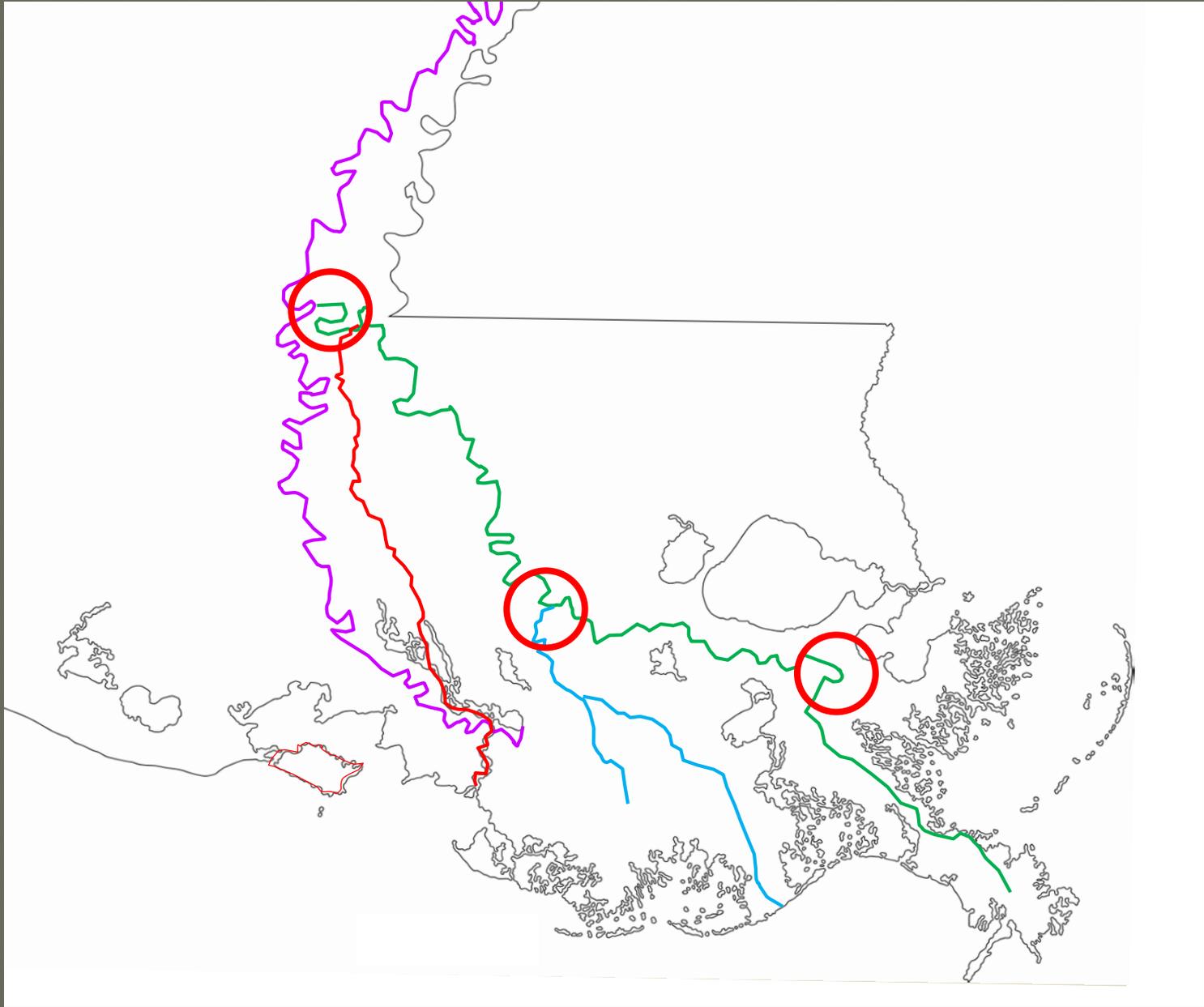


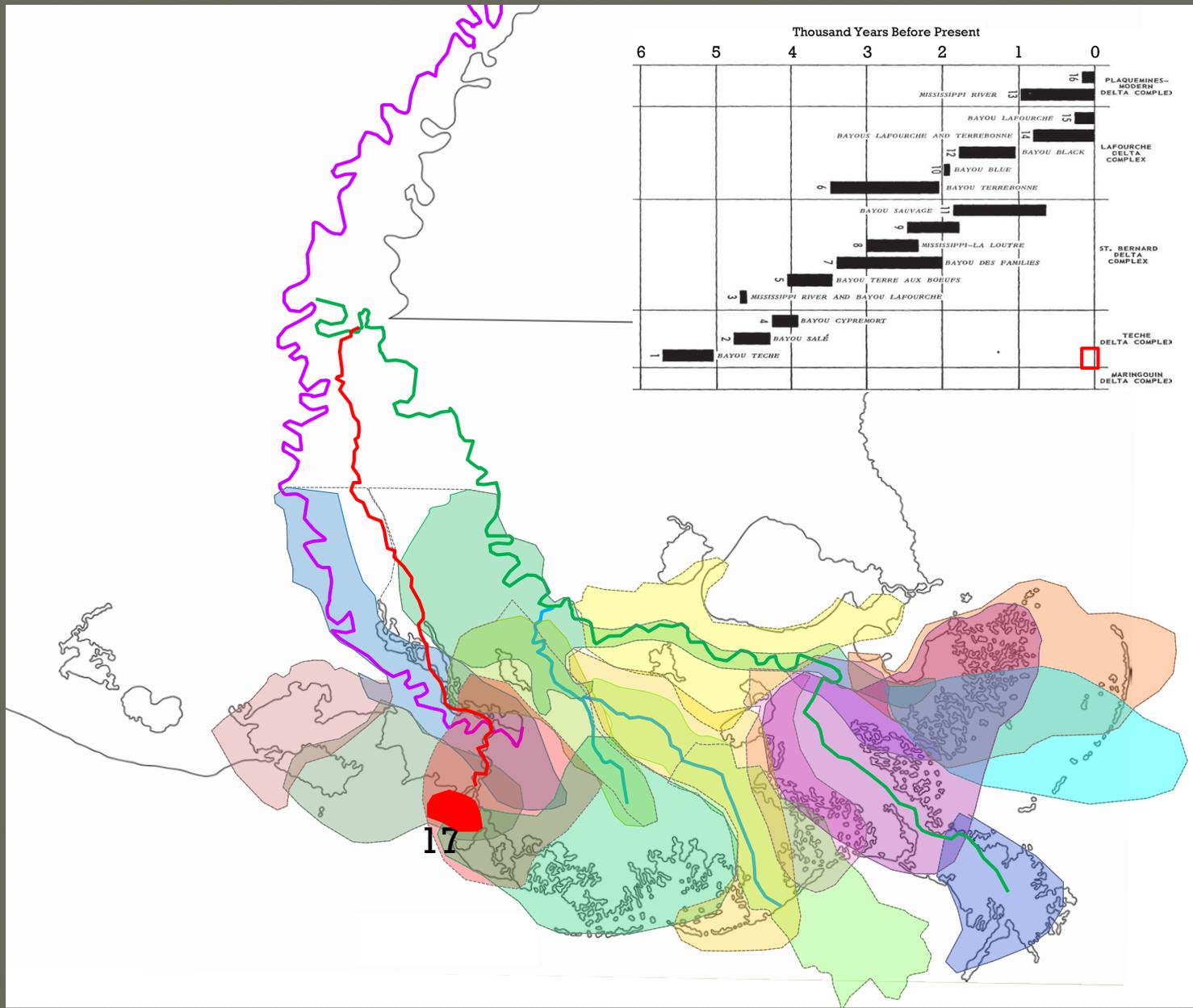


Thousand Years Before Present



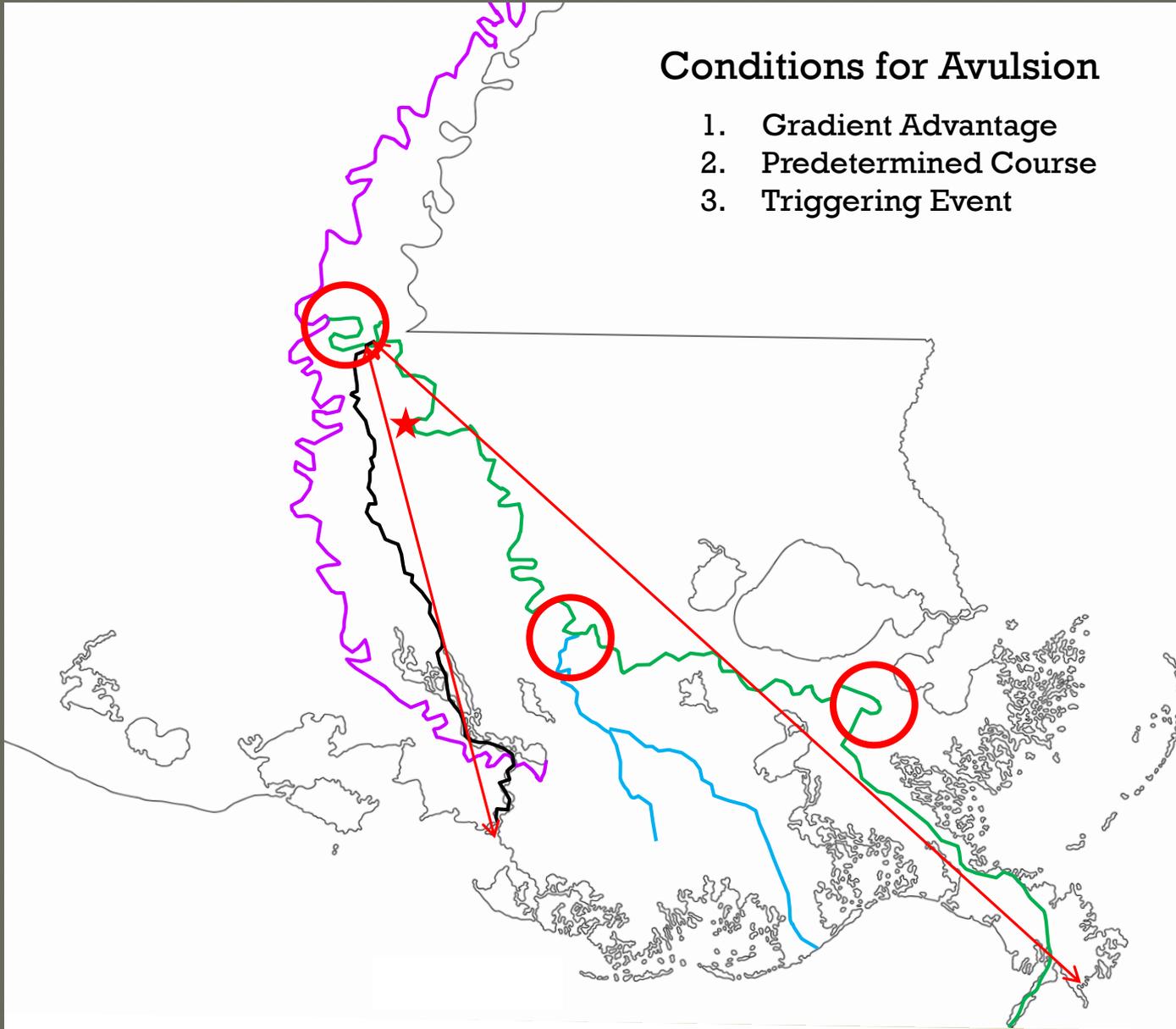


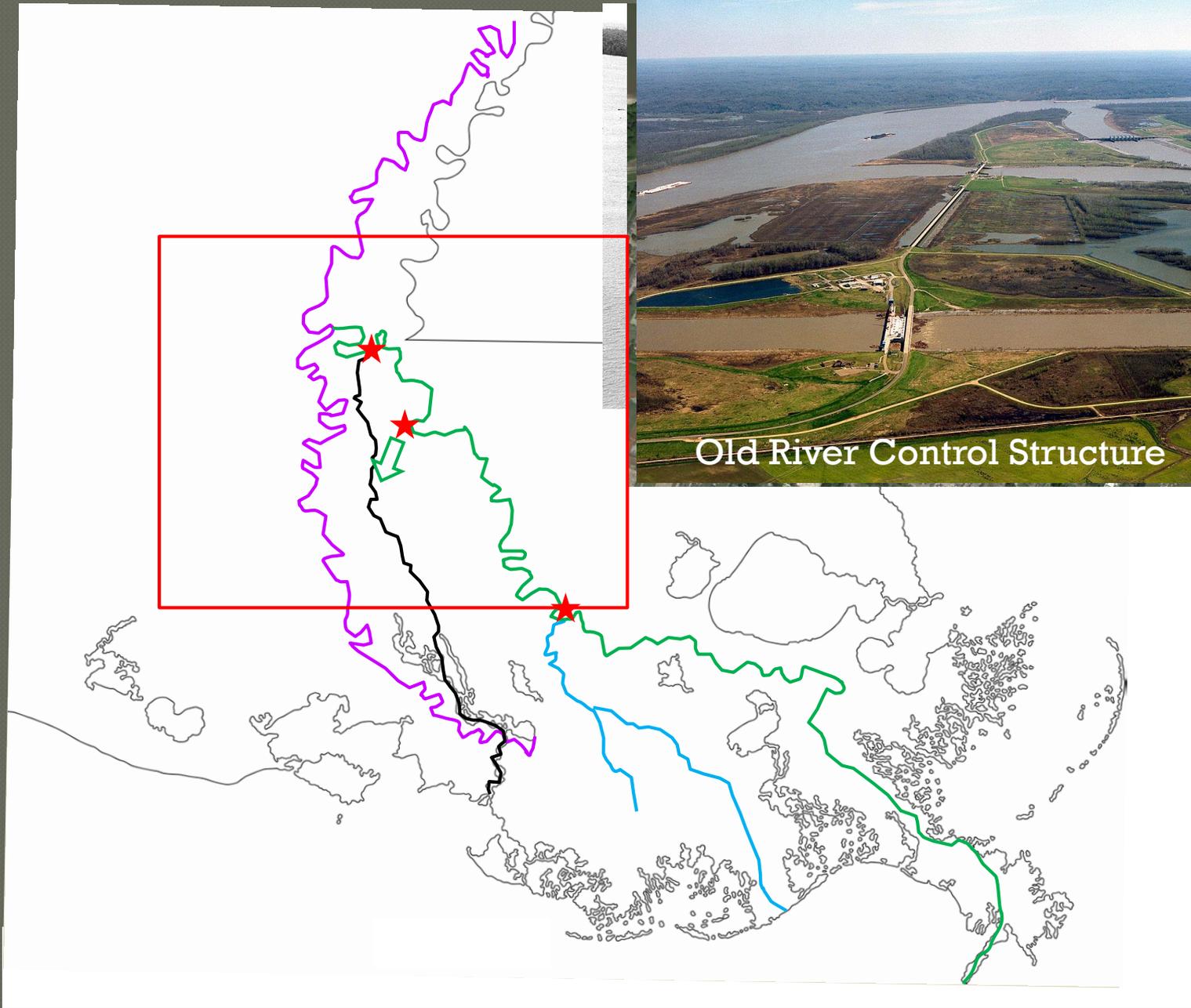




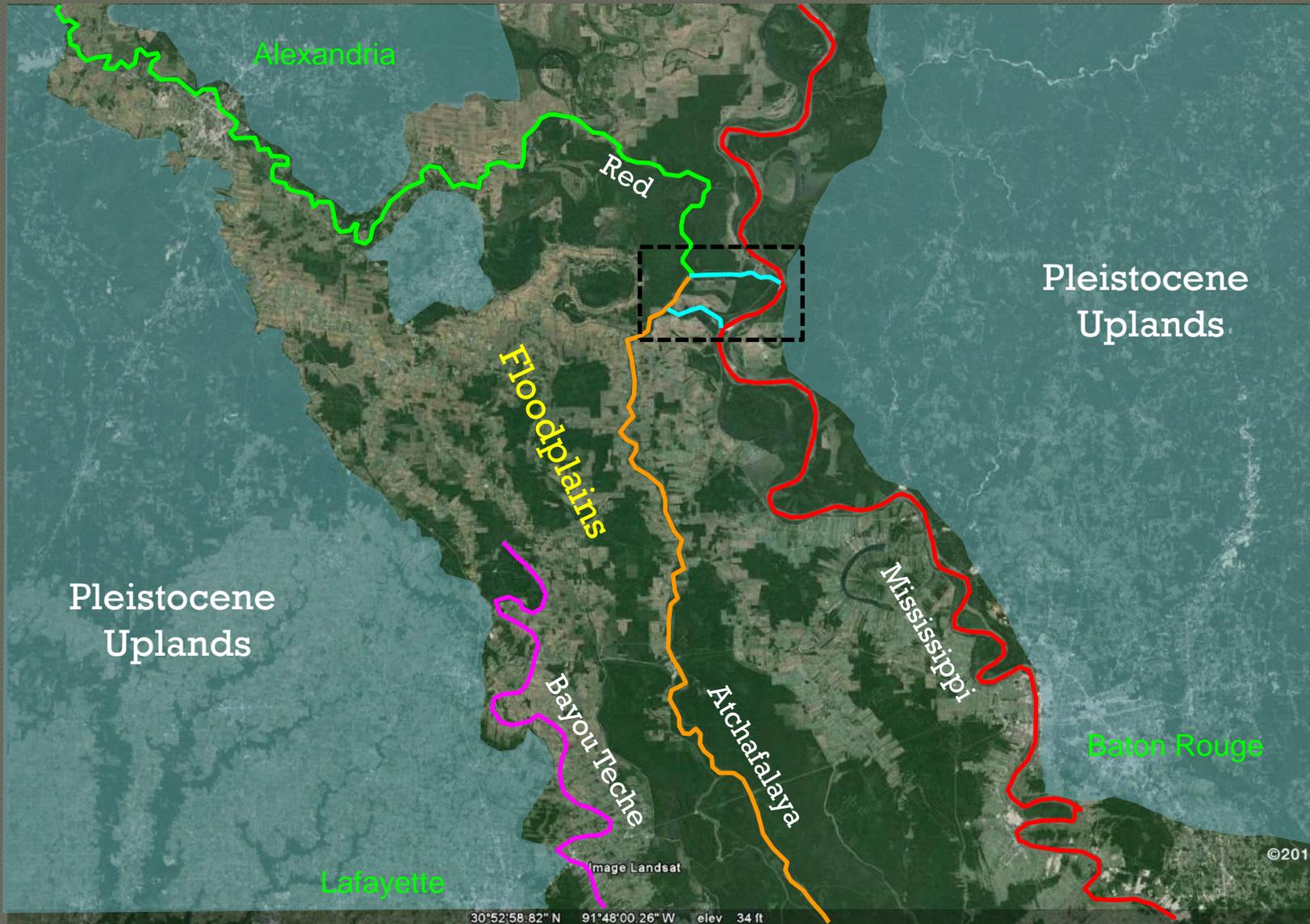
## Conditions for Avulsion

1. Gradient Advantage
2. Predetermined Course
3. Triggering Event





Old River Control Structure





31°01'57.73"N 91°38'37.96"W elev 36 ft

©2010 Google

Eye alt 15.99 mi

5000 y BP

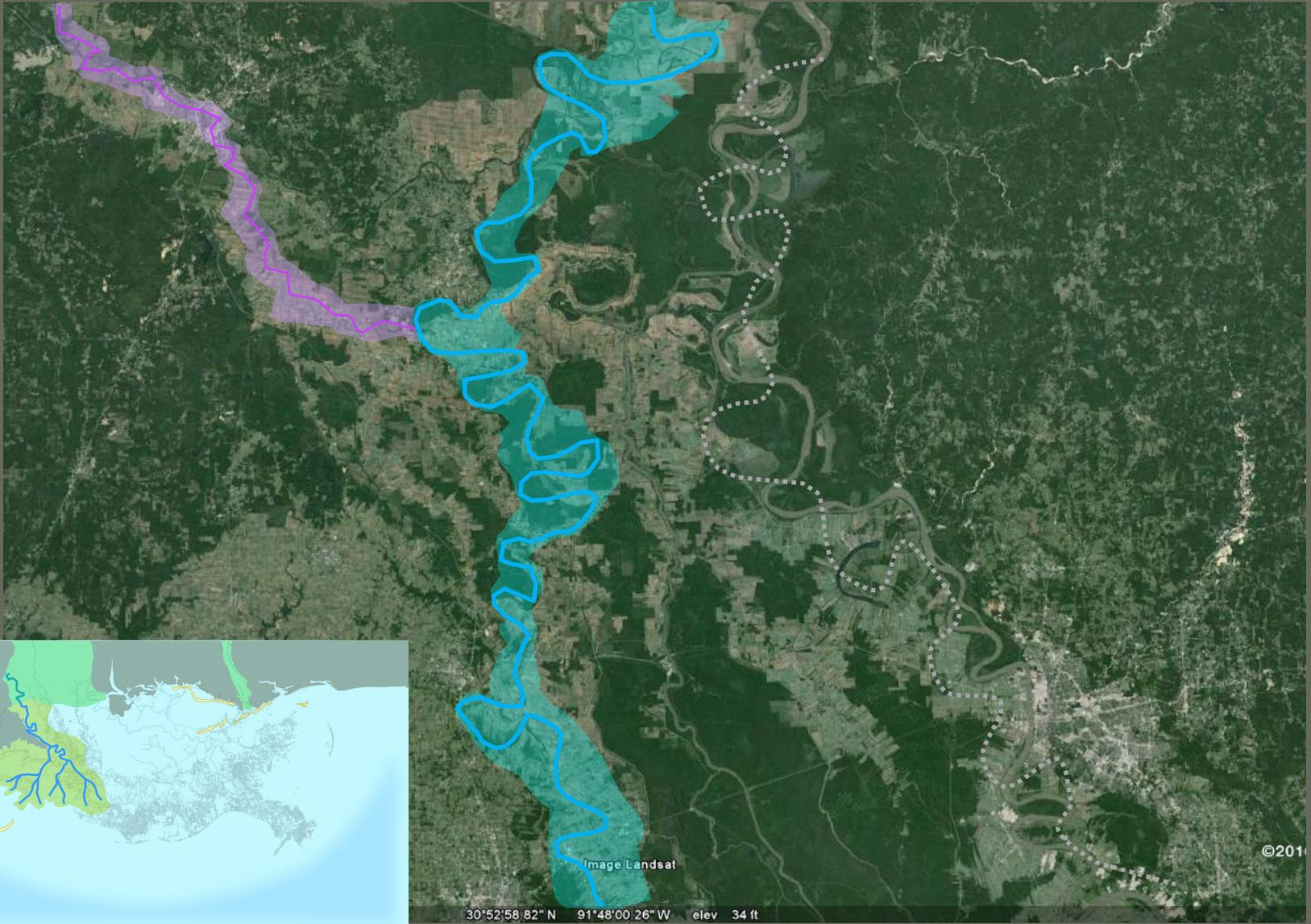
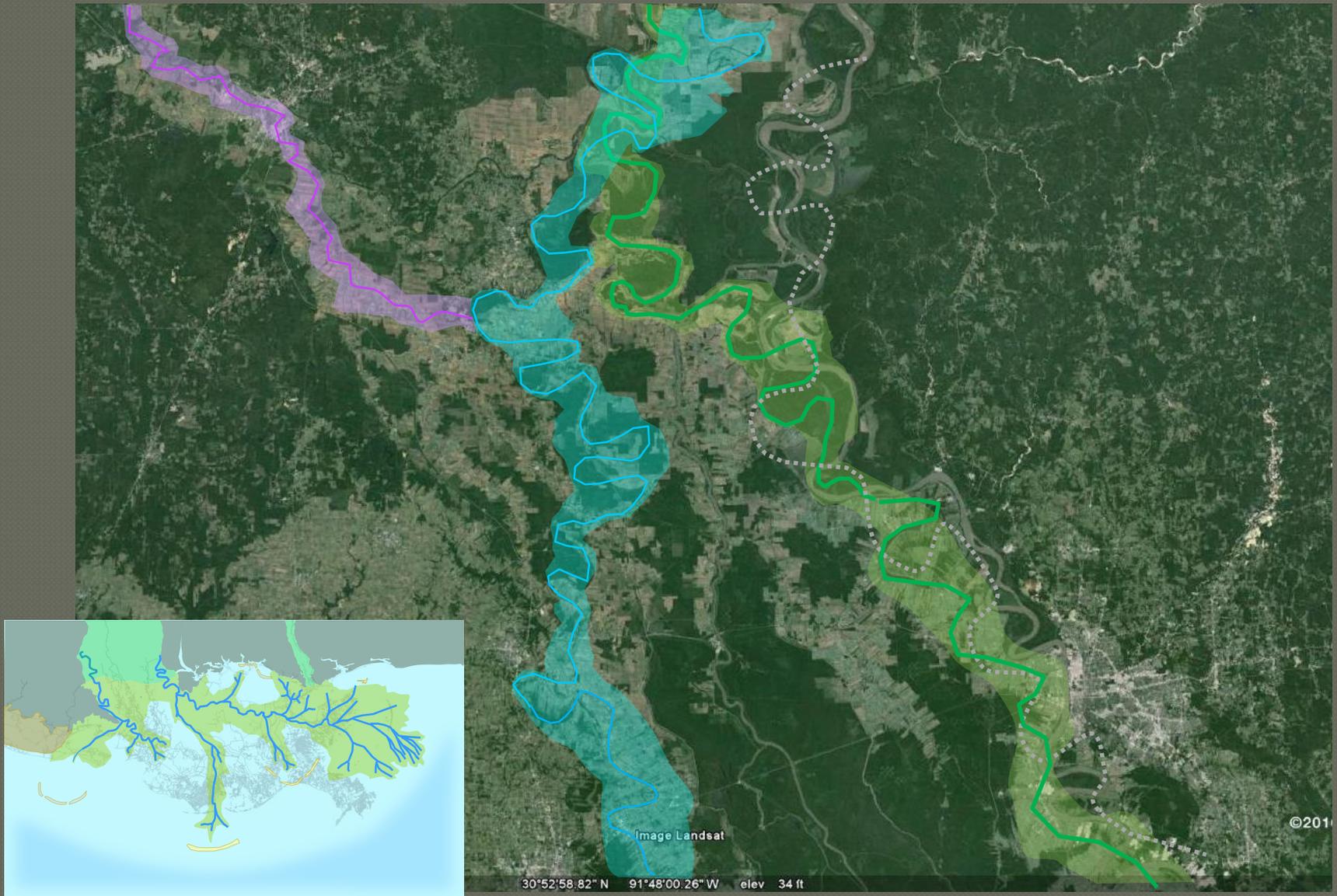


Image Landsat

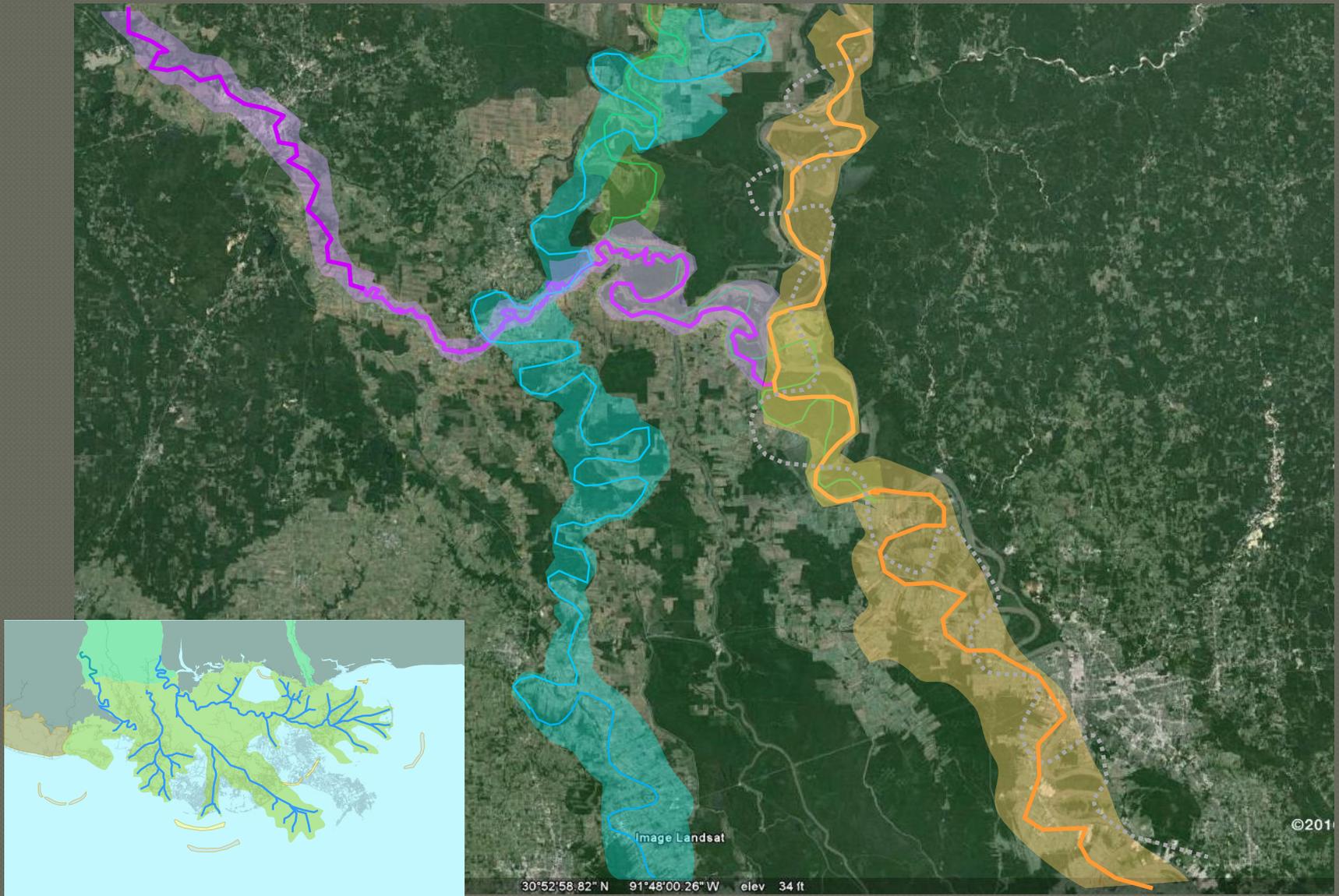
©201

30°52'58.82" N 91°48'00.26" W elev 34 ft

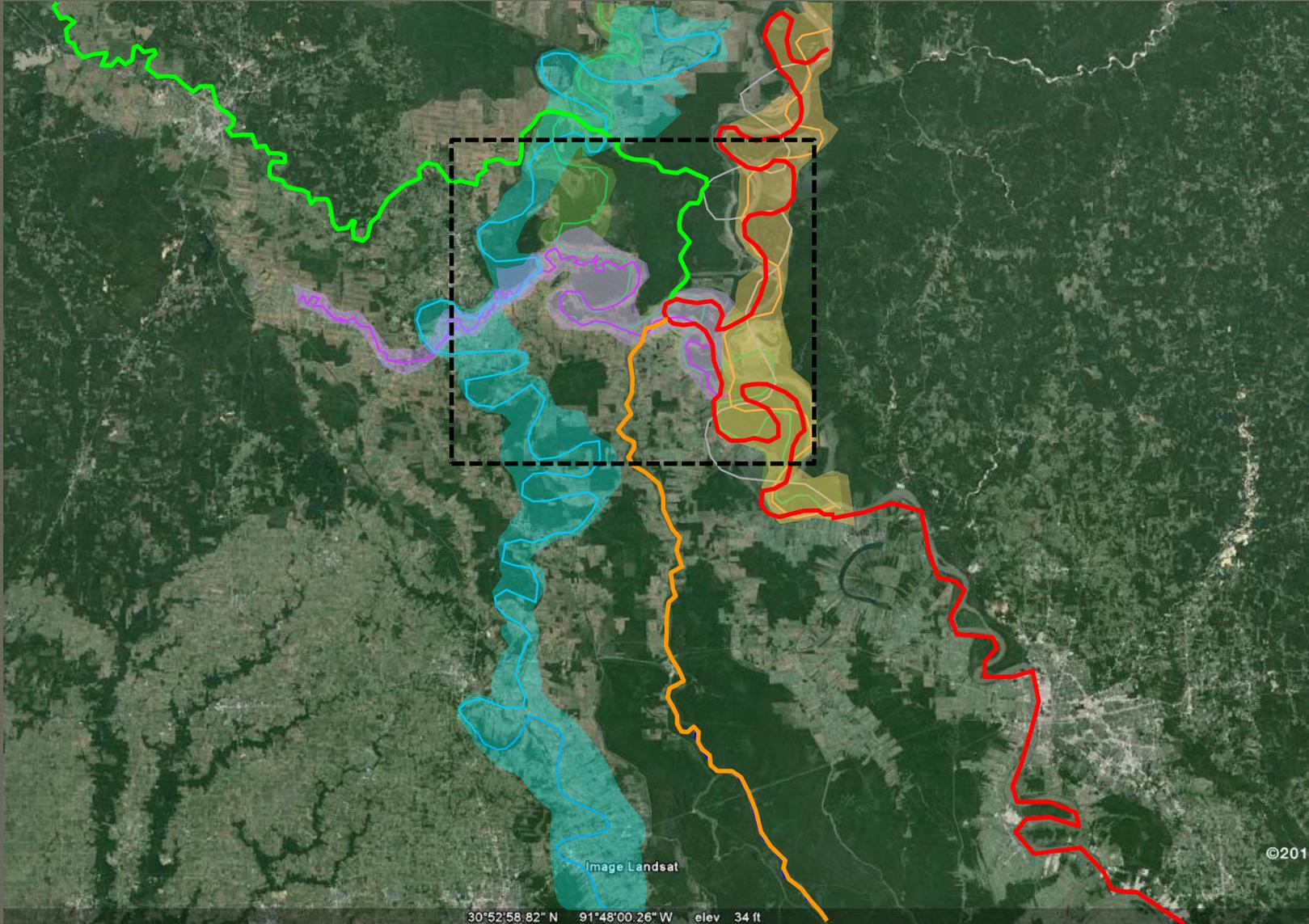
2000 y BP



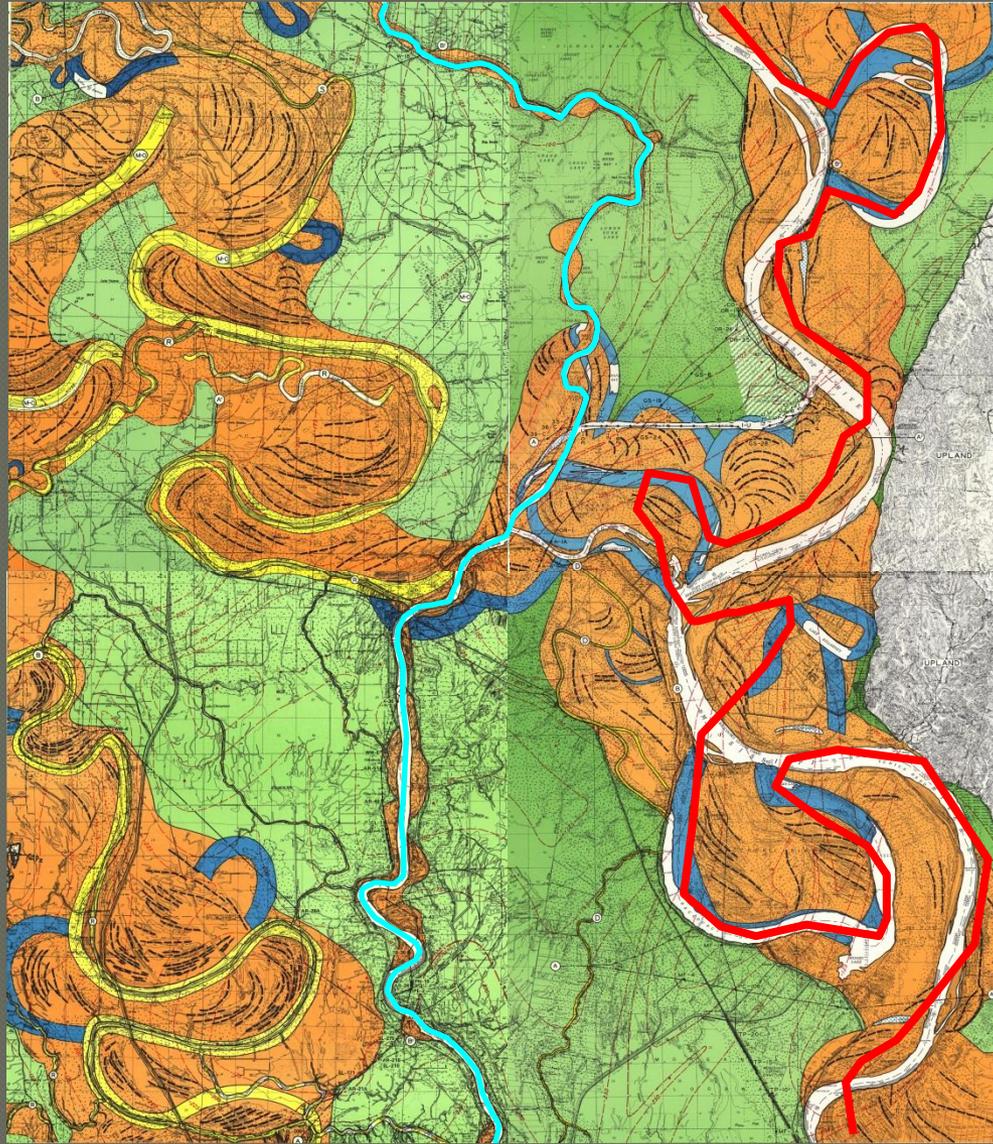
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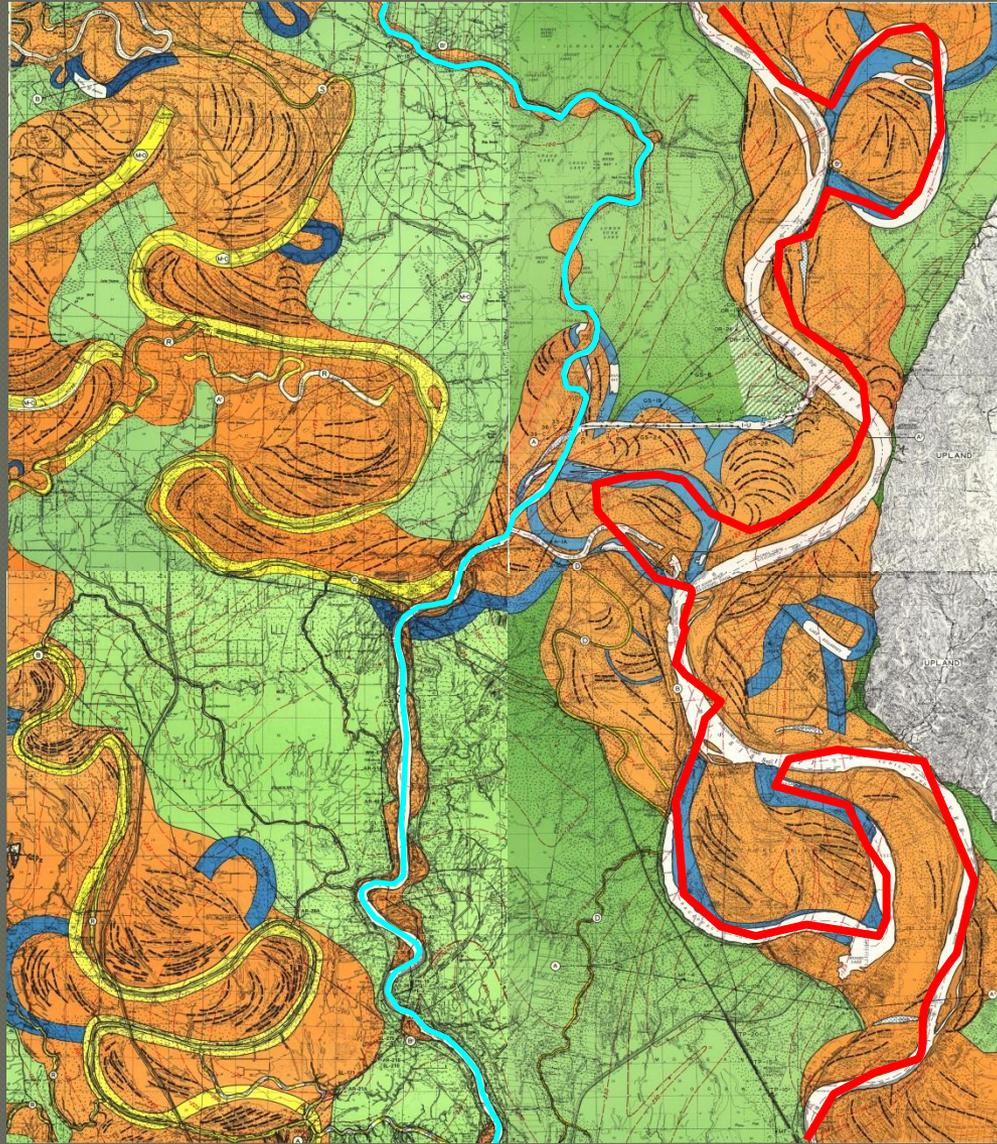


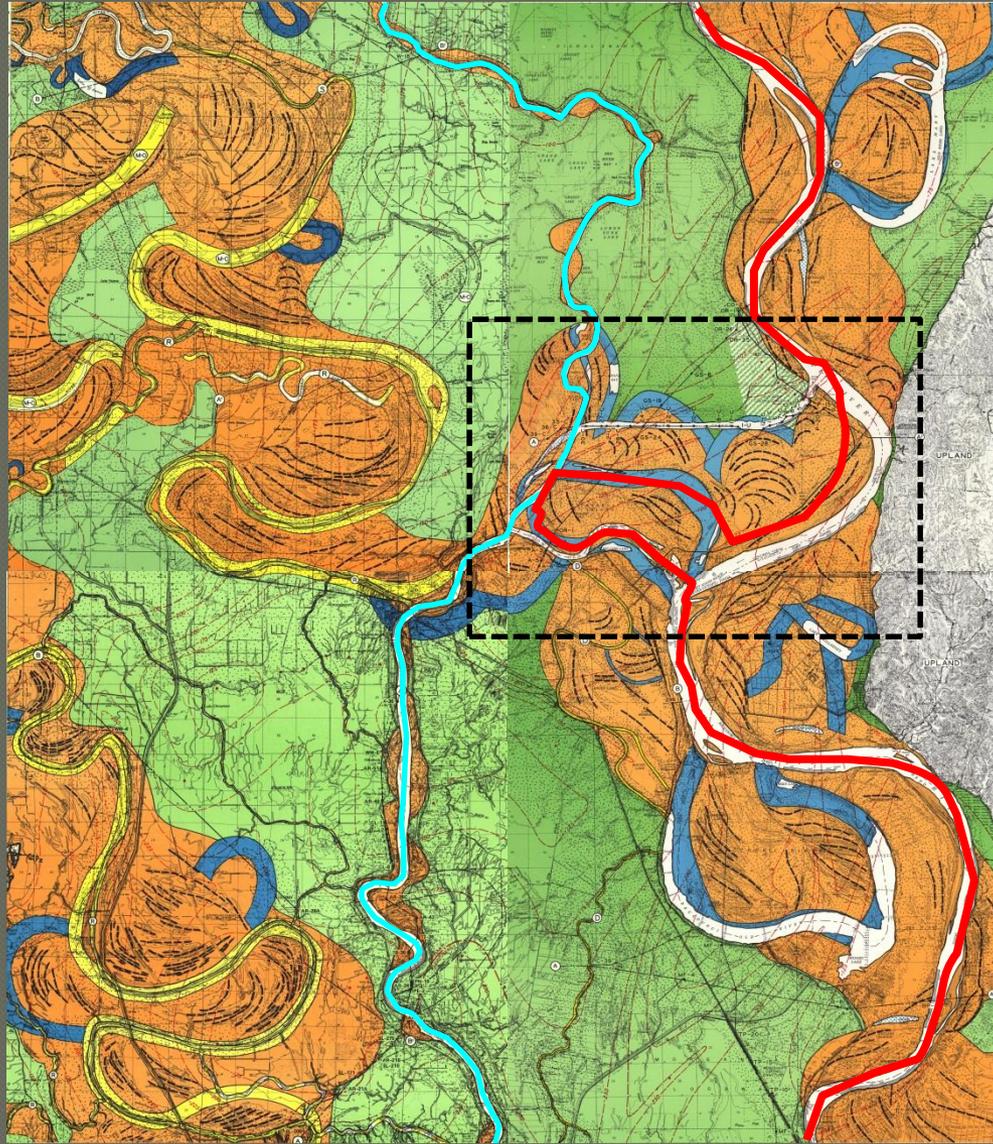
1800 AD

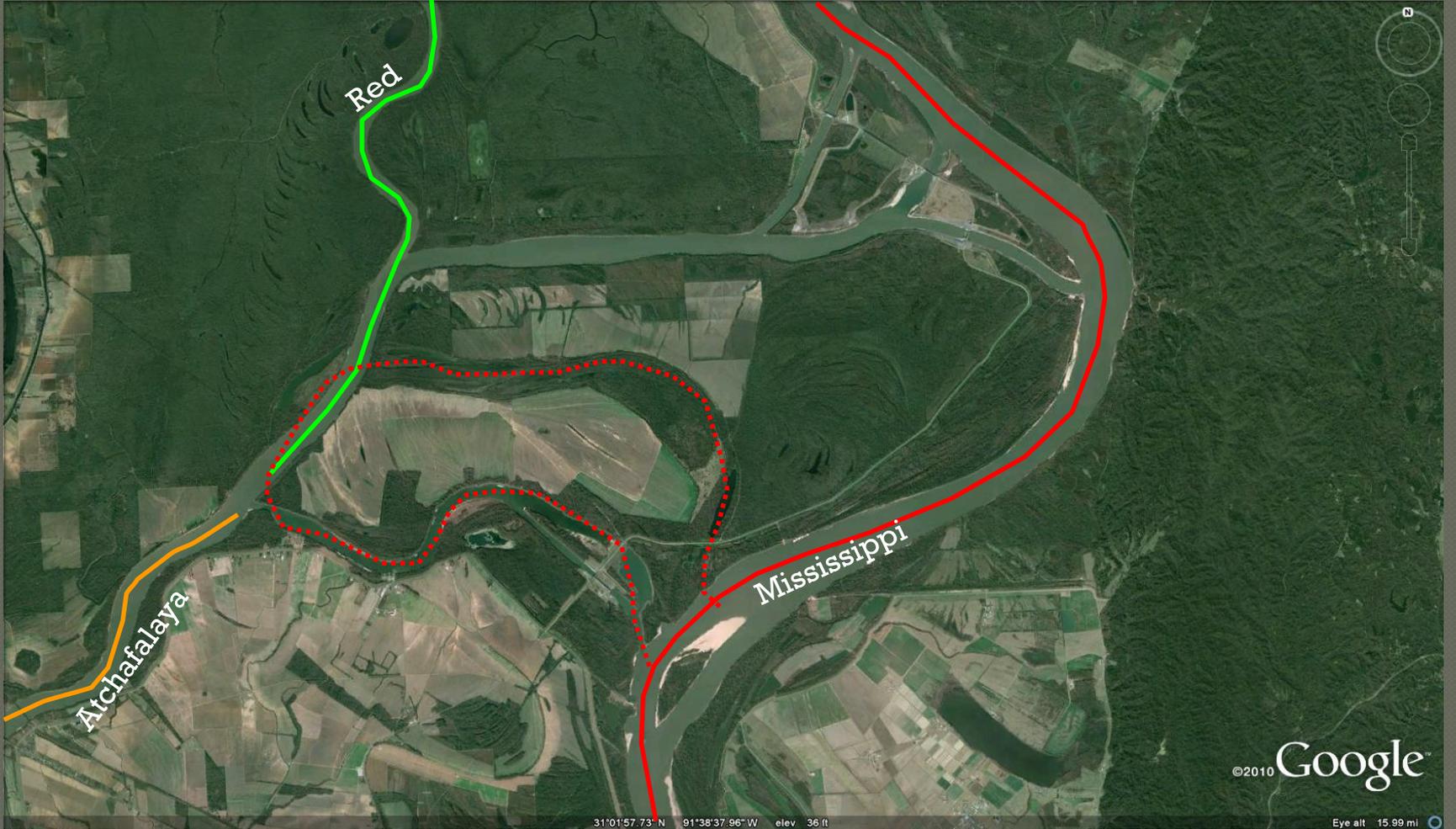












Atchafalaya

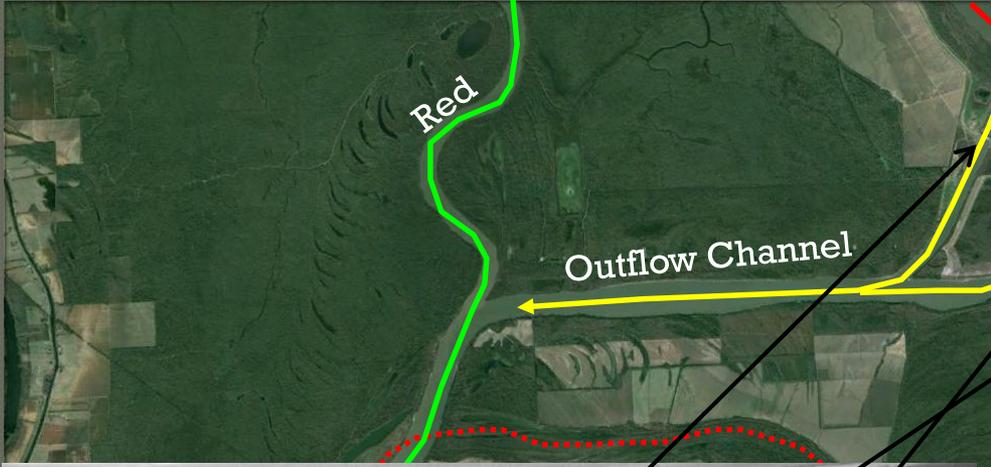
Red

Mississippi

©2010 Google

31°01'57.73" N 91°38'37.96" W elev 36 ft

Eye alt 15.99 mi

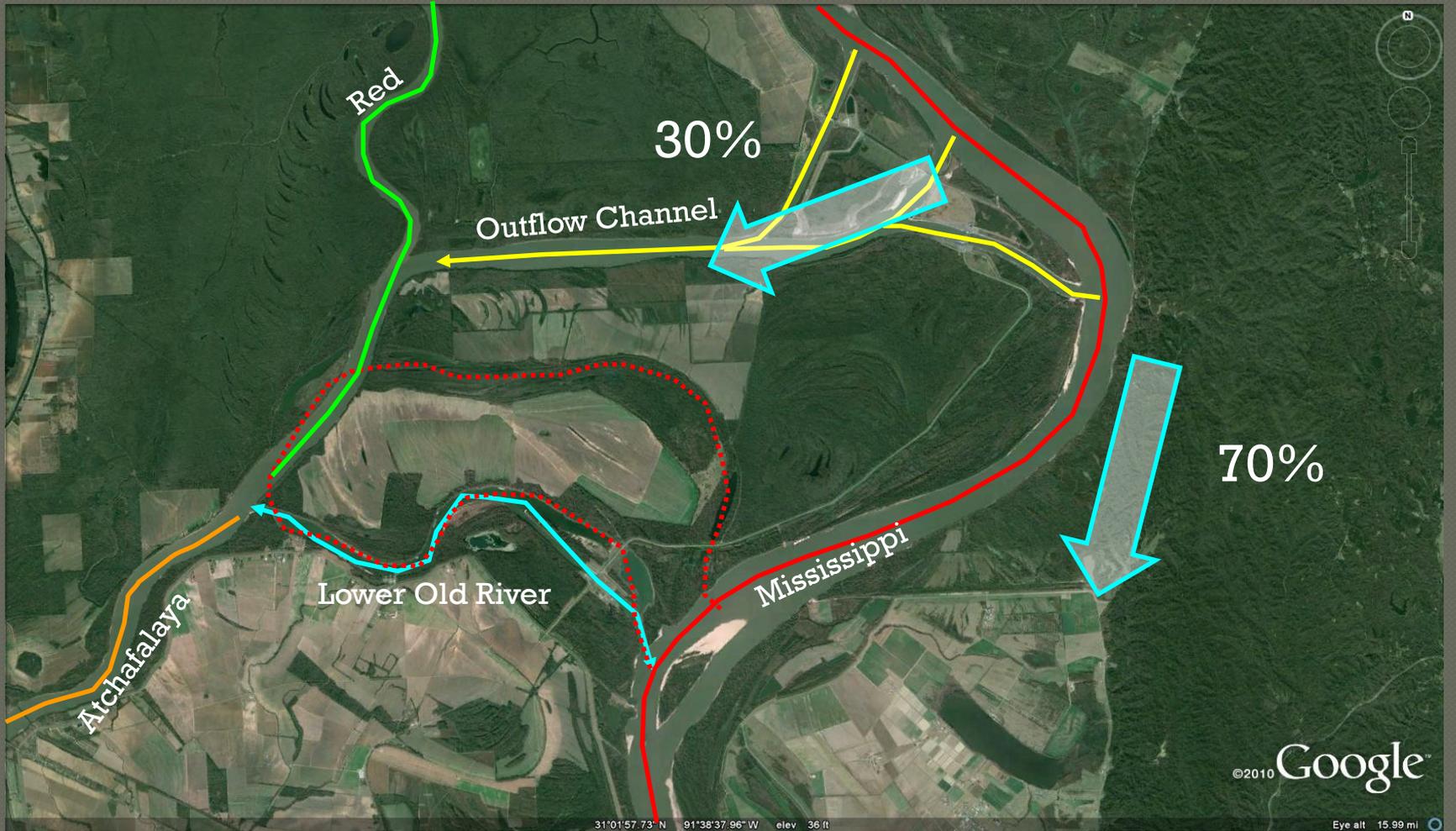


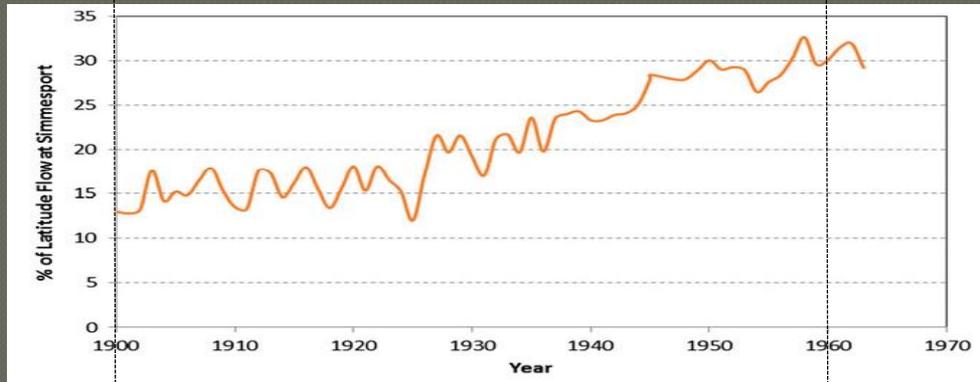
Lock and Dam



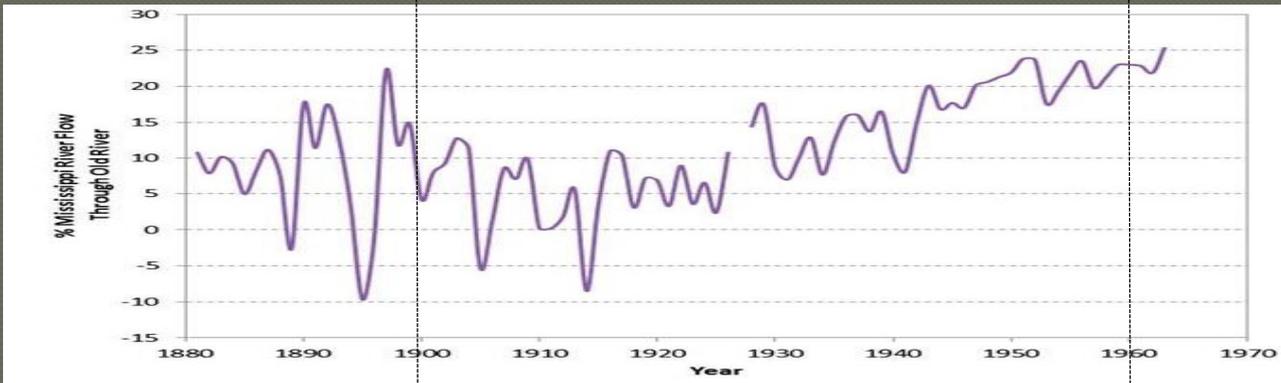
Hydroelectric Plant



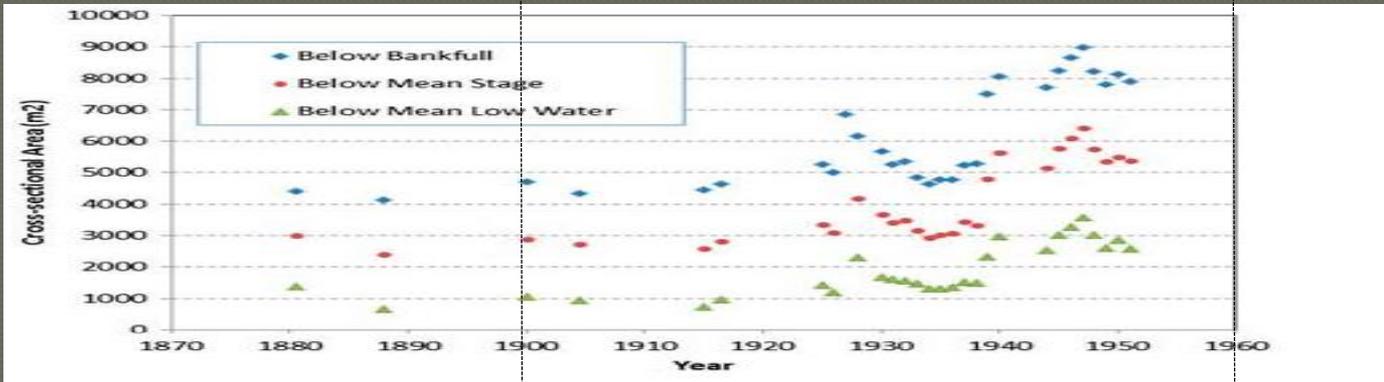




Flow of the Atchafalaya River at Simmesport as a percentage of the combined flow of the Atchafalaya and Mississippi below Old River

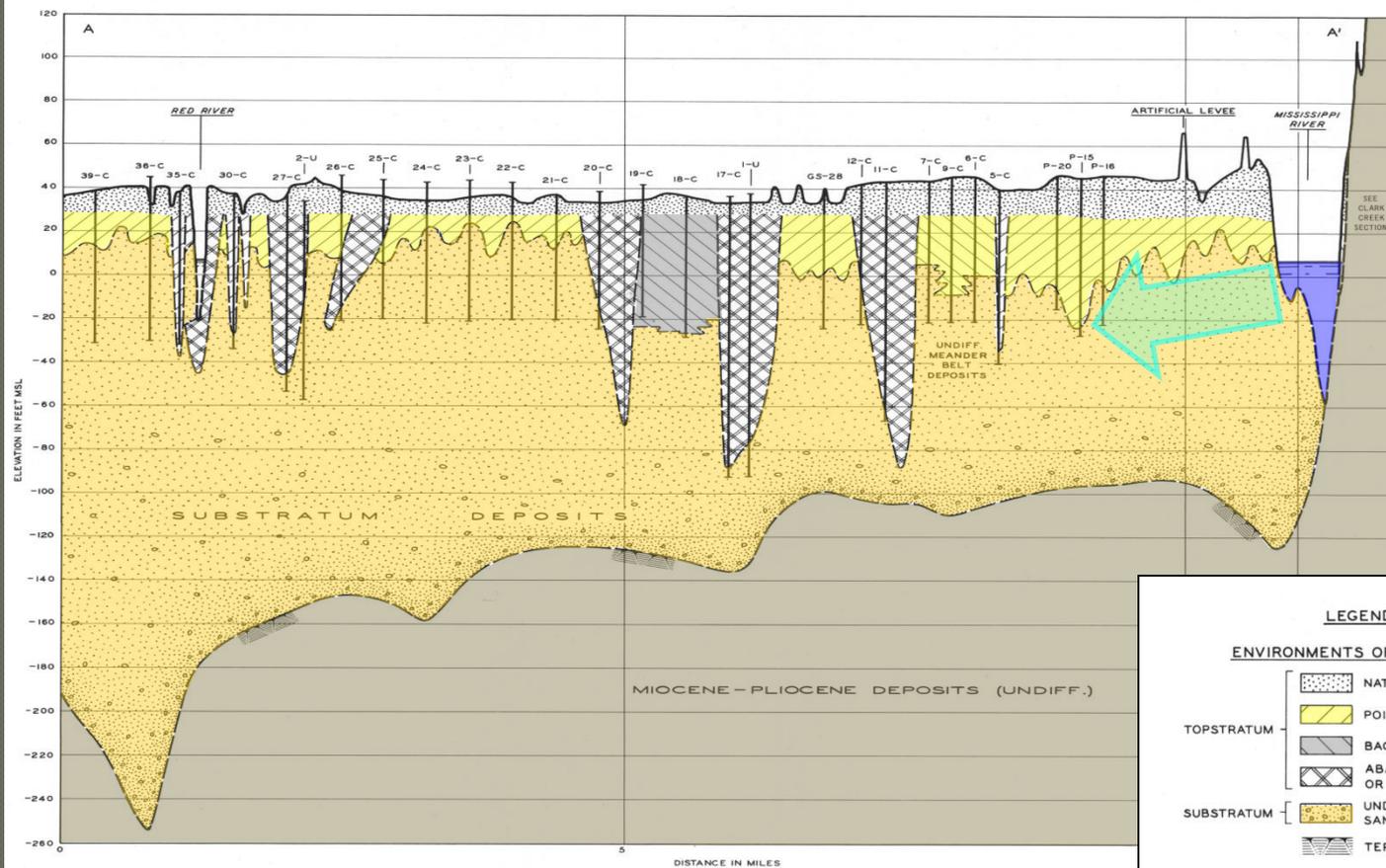


Percentage of the total flow of the Mississippi River through Old River



Cross sectional area of the Atchafalaya River at Simmesport

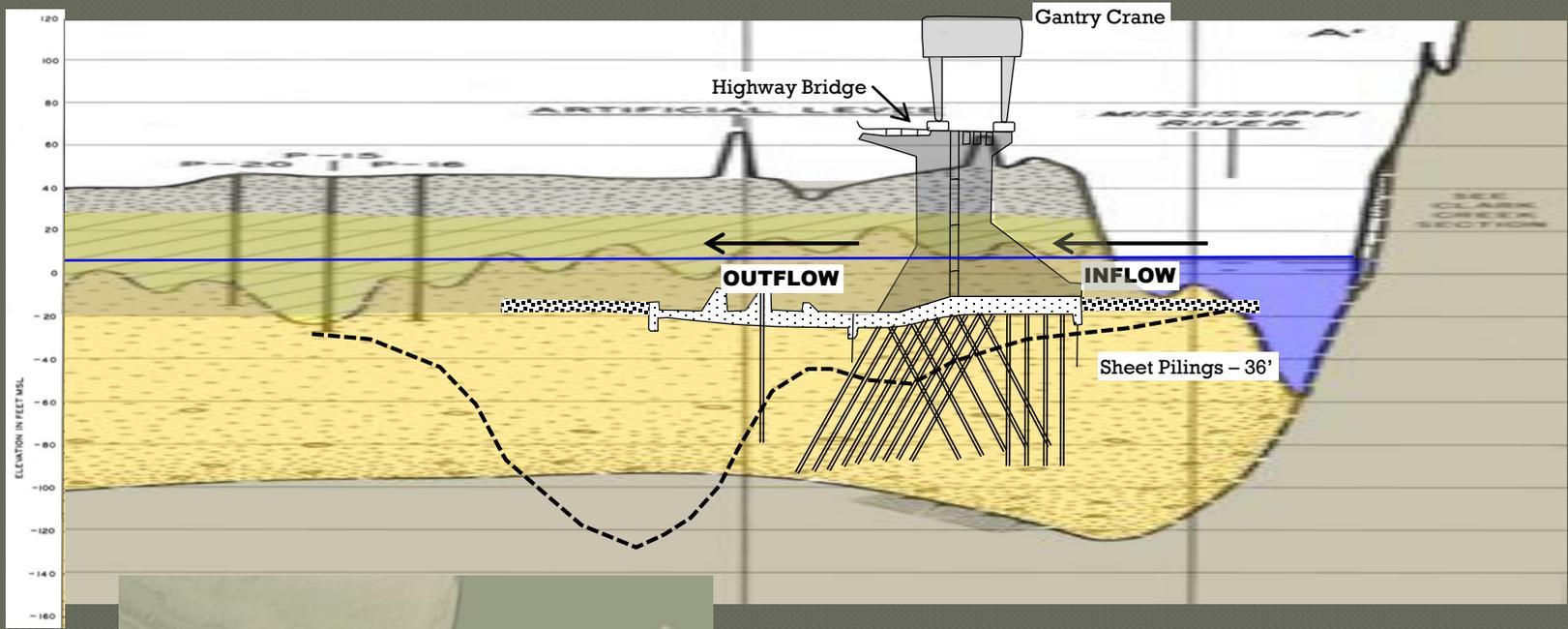




**LEGEND**

**ENVIRONMENTS OF DEPOSITION**

- |            |  |                                  |
|------------|--|----------------------------------|
|            |  | NATURAL LEVEE                    |
| TOPSTRATUM |  | POINT BAR                        |
|            |  | BACKSWAMP                        |
|            |  | ABANDONED CHANNEL OR "CLAY PLUG" |
| SUBSTRATUM |  | UNDIFFERENTIATED SAND AND GRAVEL |
|            |  | TERTIARY SURFACE                 |

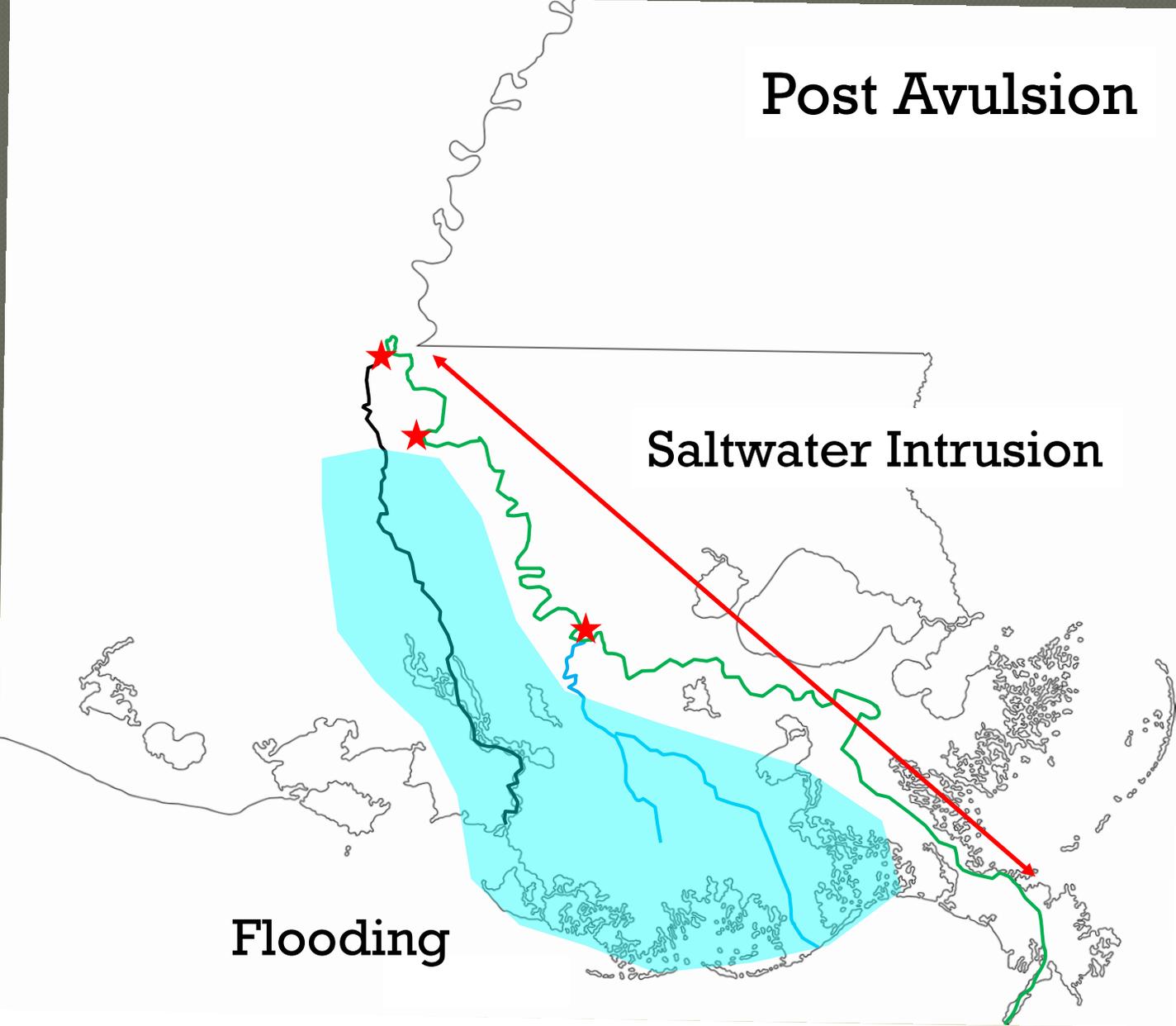


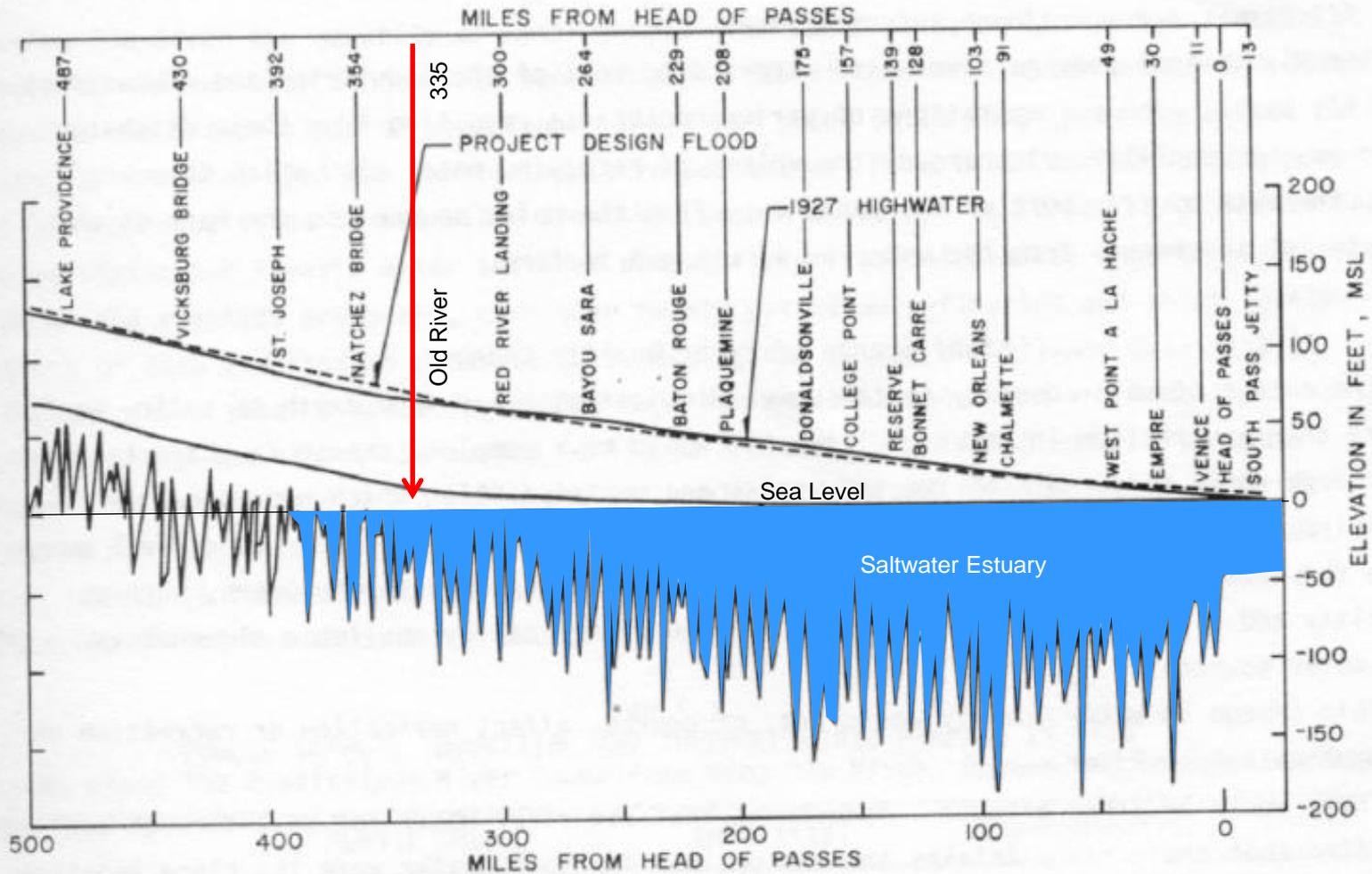


**Post Avulsion**

**Saltwater Intrusion**

**Flooding**





FROM: U.S. CORPS OF ENGINEER DRAWING

FIGURE 3. PROFILE OF THE LOWER MISSISSIPPI RIVER FROM THE GULF OF MEXICO TO MILE 500 FROM HEAD OF PASSES

