

# HISTORIC VISUALIZATION: SABINE RIVER CROSSINGS OF TEXAS

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## ABSTRACT

Historic aerial photographs of Toledo Bend Reservoir were located, digitized, georeferenced, and imported into a GIS in an effort to better understand the selection of specific routes into early Texas. Flooded in the mid-1960s, the 185,000-acre impoundment of Toledo Bend Reservoir drowned the Sabine River valley forests and some of the earliest Anglo-American roads, ferries, steamboat landings, and river port towns.

The Texas Natural Resources Information System (TNRIS), an operational division of the Texas Water Development Board (TWDB) in Austin, maintains the Texas State Aerial Photograph Archives. The Archives were searched to determine the years of available coverage for a study area encompassing several drowned river port towns and road crossings.

To simplify inclusion into a GIS, the individual 1960s aerial photographs were merged with 2003 IKONOS satellite imagery as a composite mosaic. The mosaic was then georeferenced in ERDAS Imagine 8.7 using a 2nd order polynomial geo-correction model with 10 scattered control points located at highway intersections. The georeferenced image was then taken into ArcGIS 9.1 and overlain with current high-resolution imagery.

The use of georeferenced historic aerial photography in a GIS will greatly aid in the interpretation of the parameters affecting the selection of historic road, town, and ferry locations. The flooded Sabine River valley comprises the border between Louisiana and Texas, and the inclusion of historic imagery of a now inaccessible area adds a temporal component to the study of early Texas roads and will greatly contribute to the understanding of why certain areas were chosen over other locations.

[Poster Abstract]

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*In* Prisley, S., P. Bettinger, I-K. Hung, and J. Kushla, eds. 2006. Proceedings of the 5<sup>th</sup> Southern Forestry and Natural Resources GIS Conference, June 12-14, 2006, Asheville, NC. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA.