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## GIS-Based Spatial Analysis of Tai Place Names in Southern China: An Exploratory Study of Methodology

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Fahui Wang<sup>1</sup>, John Hartmann<sup>2</sup>, Wei Luo<sup>1</sup>, Pingwen Huang<sup>3</sup>

<sup>1</sup>Department of Geography, Northern Illinois University, DeKalb, IL 60115-2854, USA  
E-mail: fwang@niu.edu

<sup>2</sup>Department of Foreign Languages and Literatures, Northern Illinois University

<sup>3</sup>Guangxi University for Nationalities, Nanning, China

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### Abstract

This research is part of an ongoing larger project dealing with the historical origins of the Tai in southern China and Southeast Asia. The sinification of ethnic minorities, such as the Tai, has been a long and ongoing historical process in China. One indication of historical change is reflected in geographical place names over time. Many older Tai names can be recognized because they are named after geographical or other physical features in Tai, such as "rice field", "village", "mouth of a river", "mountain", "basin", etc. On the other hand, many other older Tai place names have been obliterated or modified in the process of sinification. The objective of the larger project is to reconstruct the historical past settlements of the Tai from place names. This research is an exploratory study demonstrating how modern GIS and spatial analysis techniques can benefit researchers in historical-linguistic-cultural studies who have been less exposed to them. In particular, GIS-based spatial interpolation and clustering methods are used to map the spatial patterns and identify the concentrations of Tai place names; GIS overlays are used to define some spatial variables, which are then fed into a logistic regression in attempt to explain the spatial patterns.

### Keywords

place names, spatial analysis, Tai, sinification

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