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Current Research: Toward a Collaborative Development of a Truly Comprehensive Multi-State Material Culture Database

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Current Research: Toward a Collaborative Development of a Truly Comprehensive Multi-State Material Culture Database

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Current Research: Toward a Collaborative Development of a Truly Comprehensive Multi-State Material Culture Database

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Throughout the past several years, I have been compiling, with the help of several Caddo researchers, a comprehensive multi-state database primarily composed of whole Caddo vessels from published excavations, private collections, and archaeological reports. At present, the database contains over 13,000 vessel entries from over 500 sites ranging from a single vessel recorded at a site to hundreds (Figure 1). Over the years, the database has evolved to contain, where applicable, attribute fields on type, variety, motif designs (largely using the Glossary of Motifs published in the Spiro shell engravings [Phillips and Brown 1978:145-56] and by others [Gadus 2013:219]), collegiate assignment, form, temper, decorative method (incised, brushed, etc.), context (burial #, site #, intra site location), pigment, archaeological phase, collector, repository, associated photographs, and reference citations. The database is managed using Microsoft Access where data are imported into ESRI ArcGIS and spatial analyses can be conducted.

This is a continual, and perhaps never-ending, work in progress where attribute fields are added, types are vetted, and new sites are included. In some cases, “Caddo-like” vessels from sites outside the Caddo Archaeological Area, or Caddo Homeland, are included in order to evaluate social interaction and exchange of ideas. Through this process, some initial insights into landscape scale social interactions and interregional relationships using this growing comprehensive database have been explored.

For example, I have used earlier versions of the ceramic database to evaluate spatial relationships of specific ceramic types (McKinnon 2011). This initial study used 284 vessels to evaluate the distributions of temper, form, and decorative treatment of Foster-Trailed Incised, along with select Cowhide Stamped and Keno Trailed vessels (Figure 2a). Using spatial statistics, seven “outlier” vessels were identified that suggested

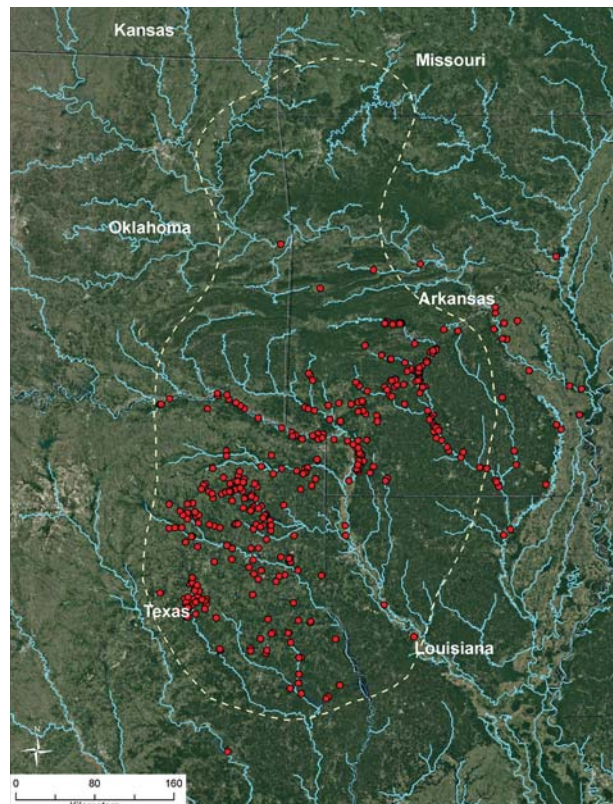


Figure 1. Current distribution of archaeological sites represented in the database.

contact with communities beyond the defined Caddo Homeland. A second study focused on the distribution of a select ceramic design or motif – the “rayed circle” – represented on types such as Avery Engraved, Belcher Engraved, and Hempstead Engraved (McKinnon 2016a). A total of 150 vessels containing variations of the rayed circle were spatially evaluated, which revealed distinct clusters across the landscape and a possible corridor of exchange between communities as expressed in design variation (Figure 2b). Each of these studies establishes a set of hypotheses to test as the database grows, spatial queries become broader, and new questions develop.

These preliminary case studies were productive and demonstrate the value of the spatial analysis

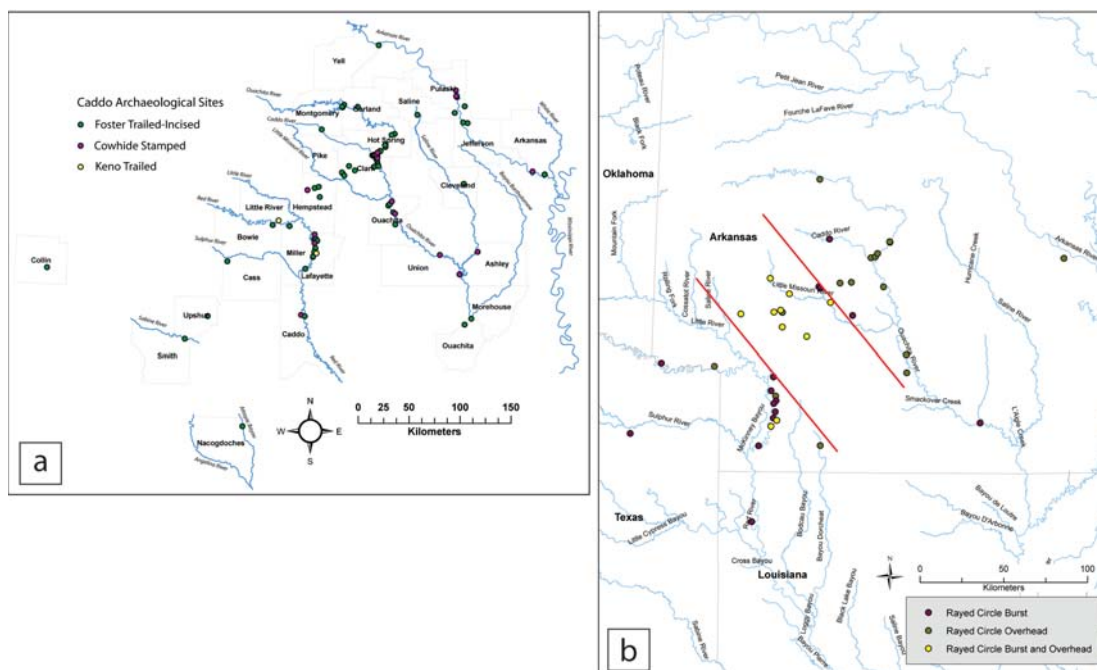


Figure 2. Distribution maps produced from the (a) Foster-Trailed Incised (McKinnon 2011:Figure 4) and (b) rayed circle (McKinnon 2016a:Figure 9) analyses.

of material culture that expands beyond traditional evaluations tied to river valleys and state boundaries. This type of distributional analysis provides a more complete evaluation of the interaction and exchange of ideas by Caddo peoples within the Caddo Homeland and with neighboring populations. While this database began and has grown to include whole ceramic vessels, the power of a GIS is the ability to integrate and overlay other spatial data to evaluate patterns. For example, I have been adding additional material culture items to the database from non-ceramic distributional studies, such as zoomorphic pendants (McKinnon 2015) and dog burials (McKinnon 2016b). When overlain, co-occurrences of material culture and the corresponding site relationships can be evaluated as representing distinct communities or “assemblages” that are “dynamic, transformative, and emergent through practice” (Harris 2004:79).

Moving forward, I intend to incorporate additional data such as instrumental neutron activation analysis, petrographic, and other quantitative attributes as they become available. To that end, I am putting a call out to researchers interested in helping build this material culture database by sharing databases, hard to find archaeological reports, or private collection information that have been compiled toward the shared

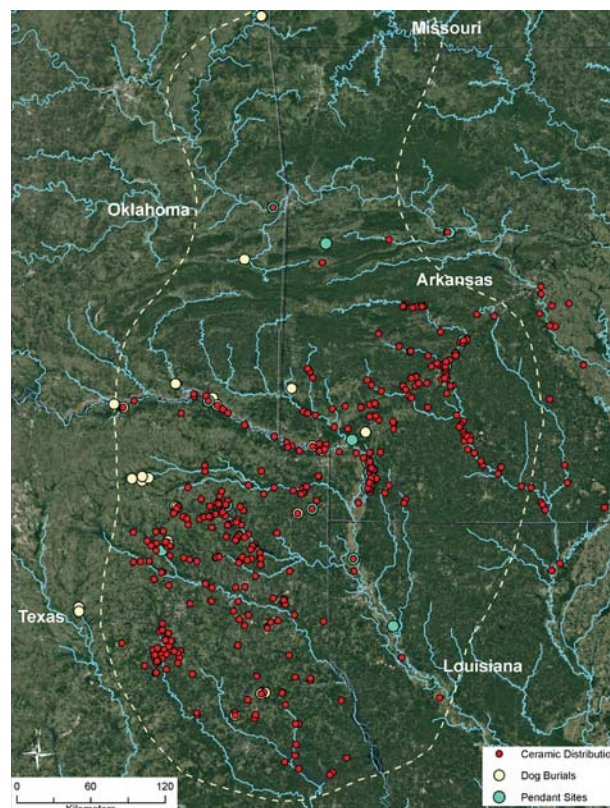


Figure 3. The distribution of ceramic vessels, zoomorphic pendants, and dog burials listed in the current Caddo material culture database.

goal of understanding Caddo interaction, identity, and ideological exchange. Through this, I hope for the collaborative development of a truly comprehensive multi-state material culture database.

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