Supplemental Text 1. Description of database construction and content.

The relational database used to collect mound site data was created by John Chamblee and is maintained by him. To date, Hally has carried out all data evaluation, entry, and quality assurance. All sites with mounds in the four-state region that can be dated to the Mississippian period with some degree of certainty as well as some with ambiguous age have been entered in the database.

The following kinds of information, where available, are recorded in the database:

-site UTM coordinates

-identified Late Woodland and Mississippian ceramic phases

-stratigraphic context of temporally diagnostic ceramic collections

-radiocarbon dates and their stratigraphic contexts

-number and type of mounds (platform, burial, ridge-top, unknown) present

-mound dimensions

-date of mound construction and use by ceramic phase and/or radiometric date

-number of mound construction stages

-mound summit architecture

-presence/absence and stratigraphic context of mound burials

-presence/absence and nature of site defensive perimeter

-spatial relationship between mounds and plazas

Site information was gathered initially from site forms available on line or at state site file offices. For the most part, these forms lack information beyond site location, site components or occupations, and number, shape, and size of mounds present. Hally has reviewed relevant grey and published literature -- much of it located at the site file offices of all four states -- in order to verify site form information and provide more detailed information on the topics listed above. Once the available information for known sites in a state has been entered in the database, copies of relevant portions of the database are sent to local experts for review and correction. Outside review of recorded site data is a slow process. So far, it has been completed only for Georgia and Tennessee.

Site occupations and platform mound construction stages were dated primarily using ceramics and commonly recognized ceramic phases and periods. Phase identifications for individual sites were derived from three possible sources: state site forms, unpublished site reports, and published site reports. Those available only on site forms were accepted if corroborating ceramic evidence was presented or if the researcher making the identification was identified and was known to have local archaeological knowledge. When such information was not available, sites were assigned to the Mississippian period.

With few exceptions, we have relied on the phase identifications and phase chronologies made by archaeologists working in an area. In a few cases where local experts disagree on the identification of phases represented at a site, or no attempt has been made to identify phases at a site in spite of the existence of adequate evidence to do so, we made phase identifications ourselves.

The ceramic phases and periods used in this research range in duration between 50 years and 300 years, but are mostly 100 – 150 years long. They are listed in Figure Table 1 by geographic area. As is evident in the table, there are many cases where a single point in time is covered by multiple phases and periods of different duration. For example, Lake George I, Lake George, and Late Mississippian each overlap the latter half of the fourteenth century in the

Table 1. Ceramic Phases Used in the Analysis

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Lower Yazoo Basin. In such cases, site occupations and constructions stages were dated using the shortest time interval supported by the available evidence. In cases where multiple consecutive phases were listed in source materials – for example, Late Savannah and Irene I in the Lower Savannah River area – the broader Early, Middle, and Late Mississippian time periods were assigned. These time periods were also used in the more common cases where phases were not specified in source materials because ceramic collections were not adequate for such identifications or formally defined phases did not exist. A small collection from northwestern Mississippi consisting of shell-tempered plain sherds and loop handles, for example, could be identified with some confidence as dating to the Early Mississippian period.

In the original Mississippian platform mound research in northern Georgia (Hally 1993), ceramic phases were subsumed into seven periods ranging in length between 75 and 100 years. This was possible because of the uniformity of ceramic style and ceramic change across northern Georgia and the generally uniform duration of the region’s ceramic phases (see phases listed in Figure 1 for the Upper Coosa River, Upper Savannah River, Upper Chattahoochee River, Flint River, Ocmulgee River, and Oconee River geographic areas). Ceramic phases in the AMSLTN region cannot be grouped into a single set of periods because of the considerable differences in ceramic styles and length of phases between geographic areas.

Mound construction stages were identified based on a critical reading of published or manuscript descriptions of mound stratigraphy. In some cases, construction stages identified by excavators in small test pits were rejected due to lack of evidence for mound summit or mound flank surfaces in the form of associated architectural features, prepared floors, or occupation refuse. In a few cases, thin, close-spaced horizontal strata revealed in test pit profiles and reported as representing multiple mound stage summits were judged to be the result of rebuilding structures on a single summit surface instead.

We attempted to date mound construction stages by assigning them to locally recognized ceramic phases. Such assignments, we feel, are most reliable when temporally sensitive ceramic collections are available from mound summit surfaces, mound flank refuse deposits, or pre-mound middens. Stratified deposits, including mound fill, that could not be reliably assigned to one of these contexts were also used for dating under certain conditions––for example, when they contained pottery belonging to the site’s latest recognized component or were bracketed by securely dated earlier and later construction stages. Radiocarbon dates were considered if they could be securely associated with a construction stage, had error ranges of less than 100 years, and were consistent with the generally accepted dates for associated ceramic phases. Temporally sensitive grave goods, such as pottery vessels and shell gorgets, were also used to date construction stages if the associated burials could be assigned to a specific construction stage with reasonable certainty. In cases where sherd collections from surface or excavation contexts indicate a site was occupied during only one phase, we used this evidence to date mound construction to that phase. Similarly, in cases where Woodland period occupations were present, mound construction was dated to the identifiable Mississippian phase when a reasonable case could be made that the Woodland occupations were not responsible. Summit architecture and burial form were also used for dating in regions such as the Upper Tennessee Valley and the Middle Cumberland Valley, where they are known to be temporally sensitive.

Radiocarbon dates played a relatively minor role in dating site occupation and mound construction. There are several reasons for this. Radiocarbon dates have been recorded in the database for only 90 of the 351 sites with Mississippian platform mounds. Almost half of these sites (38 in all) have only one or two recorded dates, and most of these (34 sites) are radiometric dates, often with large error ranges. Only 39 sites have AMS dates, and in many cases these sites also have radiometric dates.

The major contribution of radiocarbon dates to the present study has been to support the temporal placement and duration of ceramic phases. Radiocarbon dates match ceramic dates assigned to one or more occupations at 70 sites and to one or more mound construction stages at 50 sites. In no cases has it been possible to assign dates to site occupations or construction stages based solely on radiocarbon essays.