

Examining the Non-Mississippian Southeast

A Comparison of the Intrasite Arrangement of Piedmont Village Tradition Settlements, AD 1200-1700

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Introduction

In general, sedentary complex societies and hunter-gatherer societies have been the focus of household archaeology. In the Southeast, Mississippian settlements have been the focus of household approaches. However, in cases where good preservation and temporal control exist for middle-range semi-sedentary communities, the approach has the potential to inform about social and economic organization. This research comparatively studies the spatial patterning of structures and pit features at Piedmont Village Tradition (PVT) settlement sites in the Dan, Eno, and Haw River valleys, AD 1200-1700, to explore the above topics. We then assess what these patterns mean for sites in the Yadkin River valley, where household information is just starting to take form. More broadly, through this work, we hope to assess the potential of household archaeology for PVT sites.

PVT is the archaeological remains left behind by the residents of the North Carolina and Virginia Piedmonts from AD 200-1700 (Figure 1). Preservation of settlement features depends largely on alluvial action, soil acidity, suburban development, agricultural activity, and looting. Communities tended to reside in year-round settlements in floodplains and adjacent terraces in major river valleys, likely moving every 2-10 years. PVT communities were mostly farmer-foragers and egalitarian. An extensive exchange network involving lithics and shell existed across the region, and warfare was more prevalent in the eastern Piedmont (Dickens et al. 1987; Simpkins 1985; Ward and Davis 1993; Woodall 1984, 1999, 2009). Regional settlement ecology studies have determined factors influencing settlement patterns (Jones et al. 2012; Jones and Ellis 2015), but the decisions being made on the household or community level behind these decisions are unstudied.

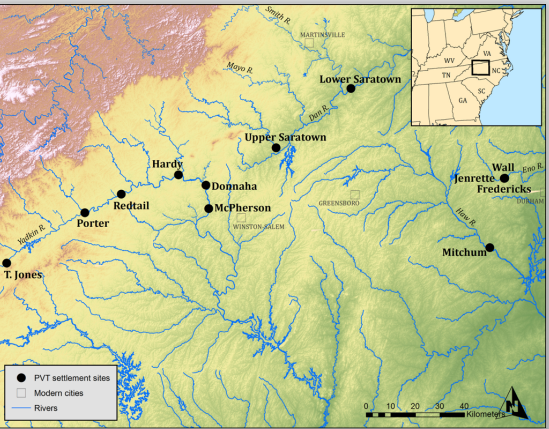


Figure 1: map of the Piedmont Southeast, our study area, and the location of sites we use here.

History of Research

Archaeological research in the Piedmont of North Carolina and southern Virginia (Figure 1) has been ongoing since the 1930s. The most notable and extensive work in the area was performed by UNC's Research Laboratories of Archaeology (RLA) in the north central Piedmont, Wake Forest University in the Great Bend area of the upper Yadkin River valley, and cultural resource management firms (Ward and Davis 1999). These efforts documented hundreds of pre-contact and contact period PVT settlement sites, and excavated several. This work helped to reveal many aspects of PVT culture including social (Dickens 1987, Davis and Ward 1993) and political (Rogers 1995) dimensions, regional settlement patterns (Simpkins 1985; Woodall 1990), settlement coalescence and dispersion (Davis and Ward 1991), interactions with Mississippian societies to the west (Woodall 1999, 2009), and interactions with Europeans (Davis and Ward 1993; Ward and Davis 2001).

The Dan, Eno, and Haw Sites

We used spatial data from settlement sites in the Dan, Eno, and Haw valleys from Dicken's et al (1987), Ward and Davis (1993), and Davis et al. (2003). We created diagrams of structures and pit feature functions based on the following criteria:

- We examined only those pits that were contemporaneous with houses
- We defined pits as:
 - Interior = within or overlapping with structure walls
 - Assigned = outside structure walls but within 10 feet
 - Unassigned = not within 10 feet of any structure wall
- If a site had two clear occupation episodes, we examined each separately
- If structure walls overlapped more than 50%, we counted them as a single structure that were within the walls or within 10 feet of any of the walls associated with that structure.
- If two contemporaneous structures were close to one another with pit features in between, we assigned pit features based on which structure was closest.

The table below displays our criteria for categorizing pit features. Upper Saratow had different categories, we consolidated them into: earth oven = food prep; shallow basin = basin, and refuse pit = storage pit

Feature Type	Defining Characteristics
Storage pit	Pit feature deeper than it is wide; usually filled with overburden sediment or trash after abandonment
Food preparation	Shallow (<30cm deep) depression with high concentrations of animal bone or burned botanicals, FCR, or charcoal.
Hearth	Shallow (<30cm deep) depression containing predominantly ash, charcoal, FCR, or fired clay
Basin	Shallow (<30cm deep) depression with evidence of cultural activity, low concentrations of artifacts
Smudge pit	Shallow (<30cm deep) depression containing only ash and/or charcoal
Post hole	Conical/wedge shape and size consistent with decomposed wooden post
Burial	Any pit containing more than small fragments of human remains or having characteristic morphology of PVT burials pits

Results

We compiled data from the Dan, Eno, and Haw valleys to examine trends in structure-pit feature relationships to explore household characteristics. We did not include any of the Yadkin sites because no complete houses have been identified. Several trends emerged:

- Dan sites have circular houses; Haw rectangular; Eno both (Figs. 2-4)
- House sizes were consistent except at Upper Saratow, where they were 60-220% larger (table below)
- Sites with adequate sampling show planning in settlement layout (Fig. 3).
- Each site has a mixture of interior/assigned and unassigned storage pits, but every site except Wall has a 2:1 ratio of one over the other (Fig. 9).
- Most sites have food preparation pits in both interior/assigned and unassigned contexts, except Fredericks (all interior/assigned) and Mitchum (all unassigned) (Fig. 9).
- The Dan River sites have high numbers of storage pits compared to Eno and Haw sites, considering they have less area excavated (Figs. 6-9)
- The Dan River sites also shift from more interior/assigned pits to more unassigned pits and back again over the span of AD 1620-1710 (Fig. 9)
- The later Dan River sites have more interior/assigned burials than earlier sites or those in the Eno and Haw valleys (Fig. 9).
- Sites in the early 1600s (Lower Saratow, Jenrette, and Mitchum) are the only settlements with no burials inside houses (Fig. 9).

Site	Valley	Date	Average house area (sq m)
Lower Saratow	Dan	1650	28
Upper Saratow	Dan	1660	64
Upper Saratow	Dan	1690	45
Fredericks	Eno	1695	28
Jenrette	Eno	1640	27
Wall	Eno	1500	28
Mitchum	Haw	1635	27

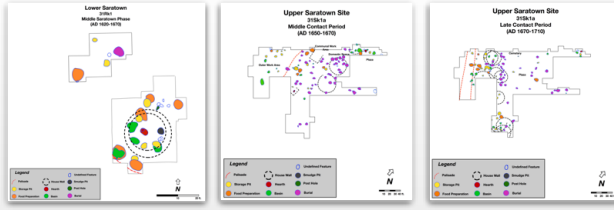


Figure 2: diagrams of settlement site layouts from the Dan River valley.

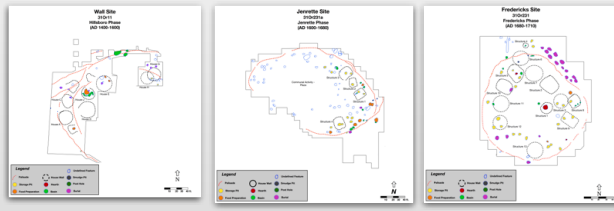


Figure 3: diagrams of settlement site layouts from the Eno River valley.

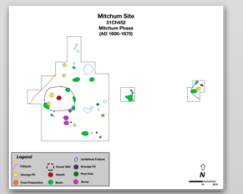


Figure 4: diagram of Mitchum site layout from the Haw River valley.

The Yadkin Valley Sites

Woodall (1984, 1990, 1999, 2009) conducted excavations at the Hardy (AD 800-1200), Donnaha (AD 1000-1400), Porter (AD 1500-1600), and T. Jones (AD 1500-1600) sites, producing detailed plans of portions of each (Figure 5). Recent excavations by us at the Redtail site (est. AD 1400) have begun to uncover structural remains of another settlement. However, clear identification of a domestic structure has not occurred to date. As a result, our reconstructions of settlements and households in this valley are much less complete than in the other PVT localities. However, some possible house remains allow us to generate hypotheses using data from other valleys. We diagrammed layouts of these sites using the aforementioned methods.

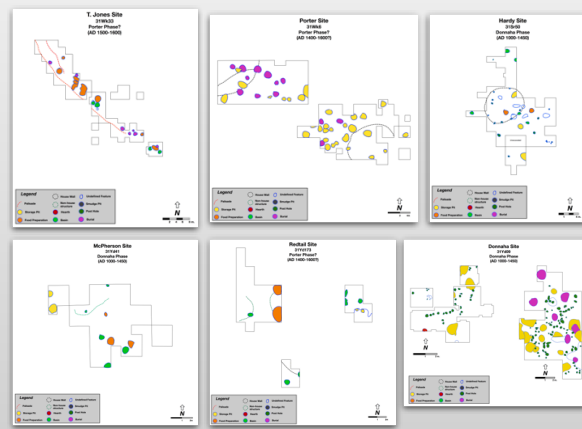


Figure 5: diagram of settlement site layouts in the Yadkin River valley. It should be noted that Donnaha has been looted extensively and distinguishing between looter pits and storage pits has been difficult.

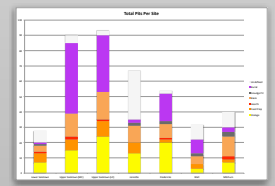


Figure 6: histogram of total pits at each site.

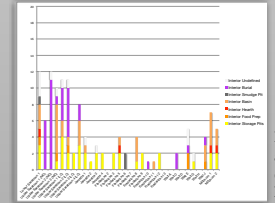


Figure 7: histogram of assigned pit feature distribution at each house structure.

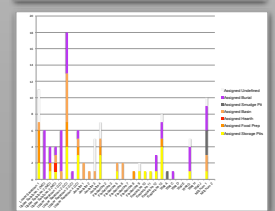


Figure 8: histogram of unassigned pit feature distribution at each house structure.

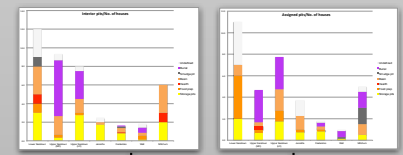


Figure 9: histograms of pit feature distribution by site.

Discussion and Conclusions

What do these results begin to tell us?
Cultural Differences
As others have noted (Simpkins 1985; Ward and Davis 1993), the different house structures correspond to linguistic and artifact data making it possible to distinguish Siouan-speaking (round) and Iroquoian-speaking (rectangular) occupations. Jenrette has the clearest rectangular house structures, but is not an outlier with regard to pit features. Thus, Siouans and Iroquoians may have had similar household and communal storage and food processing patterns.
Future work: pottery and burial styles suggest the Yadkin valley was inhabited by Siouan-speakers. Determining house forms would help examine variability between different Siouan speaking areas.

Sedentism
DeBoer (1988) proposed that subterranean storage was for protection of foodstuffs from raiding and when settlement is seasonal. Across all four valleys, postmold sizes and diversity of artifacts and ecofacts suggest year-round occupations. Subterranean storage is present at each site, with at least 2 storage pits per house. Thus, it's unlikely that subterranean storage was driven by seasonal occupation amongst PVT communities. Warfare and raiding offer the best explanation. All valleys except the Yadkin, show evidence of conflict. The only site with very few subterranean storage pits is Wall, the oldest site examined. Either earlier sites like Wall engaged in less warfare, or this site has undiscovered pits not near the excavated houses.
Future work: The Donnaha and Porter sites have a high number of subterranean storage pits. There is no evidence of warfare in the valley, ruling that out as a factor. Pits at these two sites should be re-analyzed with regard to function. In addition, upcoming work at the Redtail site will record pit characteristics and search for domestic structures to further explore whether Yadkin sites do have more subterranean storage and what that means for sedentism and patterns of conflict.

Individual vs. Communal Resource Use
Ratios of assigned to unassigned storage pits and food preparation areas suggest a mixed strategy of individual and communal resource use. However, every settlement had a 2:1 ratio one or the other. Using Waselkov's (1997) and Scarry and Scarry's (2007) work with Mississippian settlements, there may have been both individual and communal storage in these communities with each set of stores having a separate function. Household pits may have been for the consumption of the members and community pits were for communal activities or for people who functioned in a community role or had no household. The ratios discovered here could help better understand the social role of food amongst PVT communities.
Future work: Comparing these results across space and time may highlight trends in individual vs. communal approaches and possible causes. Focus on finding house structures in the Yadkin valley will provide more examples for comparison.

PVT settlement sites provide potential for the investigation of households and pit features and what they tell us about community social and economic organization, but much more work is needed. In the Yadkin valley, the Redtail site is potentially a single occupation site, and could thus be key in this regard. Other sites with similar properties should be examined to add to the comparative PVT database of households and pit features.

Acknowledgments
Funding was provided by the National Science Foundation (BCS-1430945) and the Wake Forest Undergraduate Research and Creative Activity Center. We thank Ned Woodall and Paul Thacker for providing insight into this work. We also thank James and Jeffrey Smith for allowing us to conduct research on their property and for their interest in our work.

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