

INTERPRETATIONS AND CONCLUSIONS

Implications for Regional Prehistory

The findings of the Route 7 North Survey confirmed some of the existing site distribution models. Small procurement sites, such as the Klair Site, were found on the knolls and slopes of upland regions as was previously noted in settlement pattern descriptions (Custer and Wallace 1982; Custer and DeSantis

1985b). These settlement pattern models also suggest that these procurement sites were visited by small specialized work groups for short periods of time. Presumably these resource procurement forays were made from larger base camps in either the Hockessin Lowlands, the floodplains of Mill Creek and Pike Creek, or the adjacent Fall Line Zone. The discovery of two buried floodplain sites, the Armor Site (7NC-D-101) and the Hockessin Valley Site (7NC-A-17), during this survey provides two candidates for possible base camp sites. However, these two sites are considerably smaller than other known base camp sites. Although it is difficult to accurately assess the functions of sites 7NC-D-101 and 7NC-A-17 on the basis of Phase II testing, it is hypothesized here that these sites are either micro-band base camps (smaller versions of the larger base camps) or procurement staging sites.

If they are micro-band base camps, then the implied social group movements involved a fissioning of social units at macro-band base camps into smaller social units who occupied the smaller base camp sites (Figure 65). From these sites, work groups would have made forays to nearby procurement sites. An alternative model would apply if the sites represent procurement/staging sites (Figure 66). In this case, no fissioning of major social units at large base camps would be involved. Rather, sites like 7NC-D-101 and 7NC-A-17 would be staging sites visited by work groups who would then move on to procurement sites. The staging sites may have been the site of limited resource processing; however, its main function was to

provide a non-residential central focus for groups undertaking resource procurement. An example of this kind of site would be the Hawthorn Site (Custer and Bachman 1984).

Further excavations at 7NC-D-101 and 7NC-A-17 will help to refine the determinations of these sites' functions. Identification of the site functions will help to refine site location models and clarify the ways in which the Piedmont Uplands were used by prehistoric groups.

The soil profiles recorded during the survey also have implications for studies of regional paleoenvironments (see Appendices II and III). Several studies of archaeological sites in the nearby Fall Line and High Coastal Plain (Custer 1982; Custer and Watson 1985) have noted the presence of wind-blown soils dating to the middle Holocene period (ca. 5000 B.C. to 2000 B.C.). The presence of these soils implies some denudation of the landscape and has been correlated with climatic and environmental change (Curry and Custer 1982). No aeolian soils were observed in the test unit profiles from this study. It may be possible that the Piedmont Uplands were not as severely affected by hypothesized middle Holocene climate changes as the adjacent Fall Line/High Coastal Plain area. At least there may not have been sufficient denudation of the vegetation to allow the kinds of aeolian erosion and deposition seen a few kilometers to the south.

The alluvial stratigraphies at 7NC-D-101 and 7NC-A-17 also may provide some indications of changing environmental conditions. In both cases, significant alluvial deposition has taken place within the last 5000 years. These alluvial deposits

are unconformably underlain by a weathered and eroded landscape that is derived from weathered bedrock and is probably millions of years old. Similarly dated alluvial discontinuities have been noted elsewhere in northern Delaware (Custer 1982) and the Middle Atlantic (Curry and Custer 1982) and have been related to middle Holocene environmental change. At the very least, the alluvial stratigraphies at 7NC-D-101 and 7NC-A-17 indicate that there were erosion episodes prior to 5000 years ago. After that date, conditions in these floodplains stabilized to a certain degree and deposition in one or more events began. Further geomorphological and archaeological research at these sites should help to refine our knowledge of how sedimentary data can be related to environmental changes.

Implications for Regional History

This investigation of the Limestone Road area can be useful to future historical archaeological projects in the region. Presented below are a number of observations relating to the historic development of this area from which research questions for later investigations could be generated. These observations include historic settlement and community patterns, farmstead layout, and intersite comparisons. The opportunity to study a road corridor and thus to generate a large data base of regional documentary and archaeological information, usually not possible on a single site excavation, allows the development of a unique perspective on regional cultural development.

For purposes of historical interpretation, Limestone Road can be viewed as a 5.3 mile long synchronic and diachronic

transect that cuts across a rural Piedmont society. This society, predominantly agricultural, is remarkably homogeneous in terms of socio-economic class. Based on a preliminary study of the tax rolls of property owners along Limestone Road, there seems to be little fluctuation in terms of farm values and assessments. This observation holds true throughout much of the nineteenth century, and is evidently a result of the agricultural nature of the study area. It is probable that significant variations in assessment rates between individuals only occurred when occupations are compared, such as mill operators with farmers. The conclusion that can be drawn from this study of the Limestone Road community is that it is representative of the emerging middle class of American society in the nineteenth century. In its community make-up, it is strikingly similar to Ryan's (1981:21-43) pre-industrial society in Oneida County, New York, which was based on a corporate family structure.

The socio-economic homogeneity of this rural community contains implications for the archaeological record. Artifact assemblages from rural sites of this nature should show little variation in regards to the relative quality of the artifact types recovered; i.e., all sites will contain similar ceramic and glass types, and faunal remains. Variation will occur, however, in the relative quantity of artifact types recovered; i.e., the socio-economic status of site occupants will be reflected in the amount of material goods owned and subsequently deposited in the archaeological record. King and Miller (1984) found a similar situation in the eighteenth century Chesapeake region.

Ethnic and religious diversity also were characteristics of the people in this study area. Protestants, Episcopalians, Quakers, and -- at nearby Coffee Run -- Catholics, and descendants of Swedish, English, Scotch-Irish, and Afro-American background resided along the road. Lemon (1978) sees this diversity as a damper that prevented the development of a homogeneous community in adjacent southeastern Pennsylvania, and the same seems to have held true in northern Delaware. From a study of the deed sources of the property owners on Limestone Road, it is apparent that kinship and familial ties formed the basis of community in the study area. From the deed sample researched, which consisted of 113 deeds from the Limestone Road area, over 70% of the buyers recorded were residents of Mill Creek Hundred, or were purchasing land from relatives (based on surnames). The deed records contain much valuable information concerning these relationships, and show that kinship played a major role in the development of Mill Creek Hundred. In addition, many of the family names present today on Limestone Road were present 100 to 200 years ago, or are related to the original families that settled in the area. These include the Brackins, Mendenhalls, Springers, Hadleys, Fords, Mitchells, Naudains, Chambers, Klairs, Penningtons, and others. These kinship ties may have provided the residents of Mill Creek Hundred with the sense of "community".

The investigations along Limestone Road, both documentary and archaeological, found that few dwellings were located on the road. This is undoubtedly a result of the dispersed settlement pattern followed by the original settlers of the region. By far the larger number of farmsteads and farm complexes were found to

be set back from the road, on land that was suitable for a dwelling. Manning (1983:14) has found a similar situation in the Inner Coastal Plain of New Jersey, where eighteenth century farmhouse sites were located from 100 to 800 feet from the road. Nineteenth century structures were more often constructed along the road or in closer proximity to it than the earlier dwellings. On Limestone Road, with the exception of structures located at road intersections (Mermaid, Curtis Mill, Mendenhall Mill, and Henderson Road intersections), this pattern of dispersed farmsteads was followed. It is noteworthy that most of the houses at these intersections were constructed in the nineteenth century, and further that most functioned at one time as commercial properties, such as shops, or the homes of craftsmen or artisans.

Related to farmstead layout is the placement of barns in relation to the dwelling house. In at least two cases on Limestone Road (Armor Barn Site and Springer Barn Site), stone Pennsylvania bank barns were located on the opposite side of the road from the house complex. This does not seem to be a common layout in the New Jersey Coastal Plain (Manning 1983), and is not mentioned by Glassie as a farm layout found in the Delaware Valley (1972). It is however, common in south central Pennsylvania (Alice Guerrant, personal communication, 1985).

The Limestone Road investigations could serve as the basis for several intersite comparisons related to regional development of commercial enterprises. The most interesting of these would be a study of the tavern sites located along Limestone Road.

Archaeological investigations have been conducted at three tavern sites on the Limestone Road: the Rising Sun Tavern and Wm. Anthony Hotel in Stanton (Thompson and Gardner, 1986) and the Mermaid Tavern and Tweed's Tavern during this investigation. As part of the additional excavations to be conducted at Mermaid and Tweed's, an intersite comparison of the artifact assemblages and historic development of these three sites could be done. Recent comparisons of tavern sites (Rockman and Rothschild 1984) suggest that the functions of taverns were different according to their urban or rural location. The three taverns along Limestone Road represent a similar situation. In some ways, the course of Limestone Road serves as a continuum or transect, from a coastal plain to a piedmont environment, leading from a village setting to an increasingly more rural setting, i.e., a type of environmental and cultural transect. Comparisons could also be drawn with other regional tavern excavations, such as the Peter Colley Tavern (Michael 1973a, 1973b; Michael and Carlisle 1976), Vereberg Tavern (Feister 1975), and others (Bragdon 1981; Rice 1983).

Mermaid Tavern's development as a major nodal point on the road is another research question regarding these sites that could be addressed. As defined by Hickman (1977:96), a nodal point is a locus which, relative to the surrounding region, is the scene of frequent social interactions of various kinds. The Mermaid Tavern intersection certainly fits this definition. What was it about the location of this tavern over the other taverns on the road that made it more prominent than any other tavern? Was it geographic location, the economic situation, or social

activities? Conversely, why did Tweed's Tavern not develop into a major nodal point on the road? Additional testing at these locations can use these questions as starting points for investigations.

In regards to geographic location, a pattern of tavern proximity may be discernable from the Limestone Road data. The Rising Sun Tavern and Wm. Anthony Hotel was located 3.5 miles south of Mermaid Tavern, and Mermaid in turn was 2.5 miles south of Tweed's Tavern. Taverns thus may have been located at sites that were about 3 miles from each other; closer or further apart and they were unsuccessful. In this respect it would seem that proximity was a deciding factor in tavern location, and not geography.

A similar case can be made for shops on Limestone Road. Blacksmith and wheelwright shops were found in close proximity to each other along the road -- often within 1/2 mile. It is apparent from this fact that these shops served both a local and regional clientele, similar to the situation found at the Slack Agricultural Implements Works (Coleman et al. 1984). The more prominent shops were located at the state line, Cavender's, and Mermaid Tavern, with smaller, more local shops in between. This evidence suggests that necessity and local use were more important than the proximity of other shops.

In all of the situations above, additional investigations along roadways are necessary to test these assumptions. The road itself and the development of the regional road network can be utilized as the overriding and integrating research design that

unites all of these questions (Burghardt 1969). Future road projects can use the Limestone Road evidence as a catalyst from which to formulate research questions.

In sum, the alignment of Route 7 through the Piedmont Uplands represents an environmental transect, for prehistoric times, and a cultural/geographical transect, for historic times. The study of the variability in site locations and functions along this transect during both prehistoric and historic times provides insights into the processes of human adaptations through time. This Phase I/II archaeological study provides an initial glimpse of such variability.

Cultural Resource Management Conclusions

Table 15 lists the archaeological sites located and identified by Phase I testing, which require no further research

TABLE 15

**SUMMARY OF ROUTE 7 NORTH SITES REQUIRING
NO FURTHER WORK**

CRS #	Site Number and Name
N-1250.1	7NC-D-104A Armor House Site
N-1250.2	7NC-D-104B Armor Barn Site
N-10279	7NC-D-105 Marvin Klair Prehistoric Site
N-10273	7NC-D-102 Bernard Glatz House Site
N-10289	7NC-D-109 William Torbert Tenant House Site
N-10277	7NC-A-14 Thomas Cavender House Site
N-10278	7NC-A-15 J. Chambers House Site
N-202	7NC-A-16 Harmony Schoolhouse, District No. 32 Site
N-1109	7NC-A-19 J. Springer Barn Site

because they are not eligible for listing in the National Register of Historic Places.

Table 16 lists the archaeological sites identified by this survey on Limestone Road where further work, either in the form of Phase II intensive testing, or Phase III data recovery excavations, are necessary. In the case of the G. Klair House Site, no Phase I archaeological testing was conducted, due to access difficulties. The three sites located at the Mermaid intersection -- The Tavern Site (7NC-D-106A), the Mermaid Tavern

TABLE 16

**SUMMARY OF ROUTE 7 NORTH SITES REQUIRING
FURTHER WORK**

CRS #	Site Number and Name	Work Required
N-10272	7NC-D-101 Armor Prehistoric Site	Data Recovery
N-242.3	7NC-D-106C Mermaid Tavern Wheelwright Shop Site	Phase II
N-242.1	7NC-D-106A Mermaid Tavern Site	Phase II
N-242.2	7NC-D-106B Mermaid Tavern Blacksmith Shop/Stable Site	Phase II
N-10280	7NC-A-17 Hockessin Valley Prehistoric Site	Data Recovery
N-1101	7NC-A-18 Tweed's Tavern Site (aka Gutherie-Giacomelli)	Phase II
N-10283	7NC-A-20 Beeson Yeatman House Site	Data Recovery
	G. Klair House Site	Phase I/II

Wheelwright Shop Site (7NC-D-106C), and the Blacksmith Shop/Stable Site (7NC-D-106B) -- are considered to require additional Phase II testing, due to access problems encountered. Although no land access difficulties were met during the

Blacksmith Shop/Stable excavations, this site is considered to be associated with the tavern and the intersection. National Register eligibility of all three sites must be considered together, and additional work should be conducted here. As stated previously, additional Phase II testing is also necessary at the Tweed's Tavern Site (7NC-A-18) after acquisition of the property by DelDOT.

Three sites -- the Armor Site (7NC-D-101), the Hockessin Valley Site (7NC-A-17), and the Beeson Yeatman House Site (7NC-A-20) -- are eligible for listing on the National Register of Historic Places under Criterion D. Determinations-of-Eligibility for each of these sites are included in Appendix II.

In all three cases, data recovery excavations are the recommended mitigation alternative as local transportation needs preclude the "no-build" mitigation alternative.

At the Armor Site (7NC-D-101), approximately 35% of the site is within the limits of construction and will be directly adversely affected by the proposed project (Figure 52). The remainder of the site, along the gravel access road is subject to the indirect adverse effects of the transit of heavy equipment and subsequent regrading of the gravel road to allow access to the altered Route 7. Furthermore, the site is shallow and is especially susceptible to construction-related disturbance. It is recommended that the Armor Site be avoided by DelDOT activity and preserved-in-place, if possible. If ROW requirements make this recommendation infeasible, then it is suggested that the portion of the site which will be impacted be minimized.

Portions of the site which cannot be avoided are recommended, as a final alternative, to require mitigation and data recovery.

At the Hockessin Valley site (7NC-A-17), approximately 20% of the site falls within the limits of construction and area of direct adverse effect. The recommendation for the Hockessin Valley Site, like the Armor Site, is for avoidance and preservation-in-place by DelDOT, if possible. Portions of the site which cannot be avoided are recommended for data recovery only as a final alternative.

The Beeson Yeatman House Site (7NC-A-20) is well within the limits of construction's direct effect zone and avoidance is not a feasible mitigation alternative. Although the site is shallow and fragile, avoidance and preservation-in-place by DelDOT is the recommended mitigation alternative, If this is not feasible, those portions of the site which will be impacted are recommended to be subject to data recovery as a final option.