

cultural resource surveys.

BACKGROUND RESEARCH

In preparation for the archaeological survey of the project area, prior archaeological planning studies (Custer, Jehle, Klatka, and Eveleigh 1984; Custer and Bachman 1986; Custer, Bachman, and Grettler 1986, 1987; Bachman, Grettler, and Custer 1988) and the site files of the Bureau of Archaeology and Historic Preservation were consulted to identify known archaeological resources within or adjacent to the project area. Historic maps and atlases noted in the planning studies (Byles' 1859, Figure 8; Beers' 1868, Figure 9; USGS topographic survey 1906, Figure 10; Bausman 1939, Figure 11) were also consulted for the locations of former standing structures which have now become archaeological sites. Current landowners and tenants were queried regarding any observations they may have had about cultural resources on their property. From these sources, several known prehistoric sites were plotted which lay adjacent to the project area and one previously unrecorded historic archaeological site was suspected to lay directly within the proposed right-of-way.

The nearest most significant sites are 7K-C-365A, the Dover Downs Prehistoric site (Bachman, Grettler, and Custer 1988; Riley et al. n. d.), and 7K-C-365B, the Loockerman's Range Prehistoric and Historic Archaeological site (Bachman, Grettler and Custer 1988), both located just east of present Kent 88 on the northern end of the Dover Downs Racetrack property. Site 7K-C-365A is located on a 10' high, 300' long sand ridge on the south side of

chipped stone tools, flakes, fire-cracked rock, cores, and a double-sided stone mortar were found, as well as several deep pit features with flakes, bifaces, and datable wood charcoal. One of these features, number 12, produced a stemmed point and a calibrated radiocarbon date of 6381 (6217, 6202, 6183) 6127 B.C. (Stuiver and Becker 1986; Stuiver and Pearson 1986). A second feature, number 13, yielded a jasper bifurcated base point and two calibrated dates of 6554 (6449) 6421 and 5193 (4990, 4988, 4945) 4901 B.C. (Stuiver and Becker 1986; Stuiver and Pearson 1986). Further work at this site may produce additional data on these occupations.

The Loockerman's Range site, 7K-C-365B, lies about 200 feet southwest of 7K-C-365A and contains an early eighteenth century domestic historic archaeological site and a large prehistoric chipping feature of an undetermined age. The site takes its name from the estate name of the eighteenth century owner, Nicholas Loockerman, and the historic component included domestic refuse and ceramics dating to the second quarter of the eighteenth century. The site is thought to be a tenant site, for Loockerman is known to have divided the 600 acre plantation into six equal parcels and rented them out to individual farmers. The prehistoric component, which was minimally disturbed by the eighteenth century occupation, included about 8000 artifacts, over 99% of which were unmodified waste flakes and cobble cores of a distinctive red-and-gray or red-and-buff quartzite. The lithic material surrounded a small, intact hearth but no other prehistoric soil pit features were associated. The site is clearly a quartzite cobble reduction site, but indications are

that little else took place at the site. The source of the cobble quartzite is unknown, but it is probably nearby. Since it is highly unlikely that poorly sorted coastal plain gravel deposits would contain solely one material type, the quartzite was selected from a variety of lithic types and brought to the site for reduction. The tools were then removed for use elsewhere. It is possible that the occupants of the site preferred the quartzite for all their chipped stone tool needs. However, this is highly unlikely as no example of that type of behavior has been recorded. It is also possible that the quartzite was being used for the manufacture of a functionally specific tool or an intermediate size stage biface. No late stage biface rejects or discards of any kind were found at the site so it does not appear as if depleted tool kits were being replenished with fresh tools. The few diagnostics found at the site were mostly Woodland I stemmed points of quartz, quartzite and cryptocrystallines. It appears as if a small band of people spent a day or two reducing quartzite cobbles of a specific material and then used those tools at other locations.

Quartzite tools have durable edges which are generally not as sharp as cryptocrystalline tools. They make good tools for chopping, gouging, and gross cutting of wood, bone, or animal tissue. It is possible that the prehistoric inhabitants of this site were manufacturing tools for this purpose. Apparently this quartzite was preferred over other quartzites or non-quartzites. On most sites, quartzite is a minority lithic source. This particular type of quartzite is rarely seen in this area, so this variety of material may have been preferred for the manufacture

of a certain tool type for a specific function. Other questions include the location of the cobble outcrop, the distribution of this type of quartzite across the landscape, and why no other materials were ever knapped on the site. Presumably the cobble bed is near the site; if it is not, then an additional explanation is necessary.

If the site was part of a group's movement cycle, that cycle was of a short duration and the activities were limited to cobble reduction and firemaking as represented by the hearth feature. The site measured about 20 x 20 feet and was completely excavated during the 1987 excavations (Bachman, Grettler and Custer 1988), so its limits are known. Analysis of the site is incomplete, but it is likely that further assessment of the site will reveal more about the role of this quartzite in the local lifeway.

Large macro-band base camps which contain prehistoric components from Paleo-Indian through Woodland II periods are located approximately one mile downstream on both sides of Muddy Branch (Custer et al. 1986). Surface collected artifacts from these sites are composed of from 1% to 9% quartzite, most of which are Woodland I stemmed and notched bifaces including some very large forms.

Several other nearby prehistoric sites were located during the 1987 Phase I survey (Bachman et al. 1988) and Phase II excavations at the site have been completed and are summarized in Grettler et al. (1991) and Riley et al. (n.d.). The early indications are that 7K-C-366 (Davis Beanfield site), 7K-C-364 (Huston Woodlot), 7K-C-367 (Jefferic Fallow Field site), and 7K-C-368 (Ruyter/Jefferic Woodlot site) are all procurement or

procurement/staging sites. They contained limited amounts of ceramic and no features. The artifacts recovered included low to moderate density debitage (30-100 artifacts per 1m x 1m square), cores, fire-cracked rock and an occasional biface and suggested periodic or occasional reuse rather than continual habitation.

In sum, the excavation of various sites along the corridor of the proposed U.S. 13 Relief Route (Delaware 1) have served to greatly enlarge the data base of both prehistoric and historic sites. This data is especially valuable because: 1) little was previously known about this part of Kent County; 2) the area is being rapidly developed for highways and residential and commercial building projects; and 3) much is being learned about the prehistoric occupation along the length of Muddy Branch, a minor tributary to Simon's Creek and the Delaware Bay.

PHASE I AND II SURVEY RESULTS

The project area was divided into 19 arbitrary survey parcels to organize the testing program. Each unit was given a numerical designation and a surname title taken from one or more parcel property owners and/or tenants. Test units placed within that parcel were keyed to the parcel number. Parcel lengths ranged from 1000 to 5000 feet and corresponded to legal or physical boundaries. The parcels are listed in Table 2 and shown in Figure 2. Following is a description of the Phase I and II investigations for each parcel.

Phase I testing located three archaeological sites. Phase II testing was conducted on each of these archaeological sites. Phase II testing determined that each of these sites, the Spiro-