also brought a decline in the importance of the many small crossroad and "corner" communities that had sprung up in the late eighteenth and nineteenth centuries.

RESEARCH DESIGN

The primary goal of the Phase I survey was the simple location and identification of cultural resources in the proposed right-of-way. As such, it is difficult to link the Phase I study with an explicit research design. However, the site location data can be used to test predictive models of site locations developed in earlier planning studies of the Route 13 Corridor (Custer, Jehle, Klatka, and Eveleigh 1984). More detailed discussions of the predictive models are also provided in the Phase I/II research plan (Custer, Bachman, and Grettler 1987). A brief discussion of specific site location predictions by time periods is noted below.

During the Paleo-Indian Period (ca. 12,000 - 6500 B.C.), settlement patterns were focused upon areas with either readily available cryptocrystalline outcrops or poorly drained swamps (Custer, Cavallo, and Stewart 1983). Paleo-Indian sites related to lithic sources are not expected in the study area. There are a few game-attractive swamps or bogs at ephemeral streams and major drainages in the project area and they may be the locations of Paleo-Indian procurement sites. Figure 4 shows potential Paleo-Indian site locations in the study area.

Archaic Period (ca. 6500 - 3000 B.C.) settlement patterns in central Delaware are similar to those of the Paleo-Indian Period. Therefore, the potential Paleo-Indian site locations shown in

Figure 4 are also potential Archaic Period procurement site locations.

Settlement patterns became more diversified during the Woodland I Period (ca. 3000 B.C. - A.D. 1000) and the project area was near some of the greatest social complexity recorded on the Delmarva Peninsula for this time period. A few large base camps from several cultural complexes are located near the project area and this kind of site as well as related small base camps, procurement-staging sites, and procurement sites are also expected in the project area. Figure 5 shows the projected site location model for major drainage wetlands and the potential locations for these sites are noted in Figure 6. These types of sites are expected throughout the study area with procurement sites found adjacent to interior swamps and ephemeral streams and procurement-staging sites found in areas where there are clusters of procurement sites.

Of special interest is the large number of recorded Delmarva Adena Complex sites known from central Delaware. To this point, only mortuary/exchange centers have been located and an understanding of Adena settlement pattern remains elusive. Figure 7 shows a localized site location model for the Delmarva Adena Complex.

Prehistoric settlement during Woodland II times (ca. A.D. 1000 - 1600) seems to have been less dense, less sedentary, and less intensive than that of the Woodland I Period (Custer 1982; Custer and DeSantis 1986:56-58; Stewart, Hummer, and Custer 1986). Procurement sites would be similar to those noted for the Woodland I Period. The project area falls primarily within the

FIGURE 5

Woodland I Basic Mid-Drainage Settlement Pattern

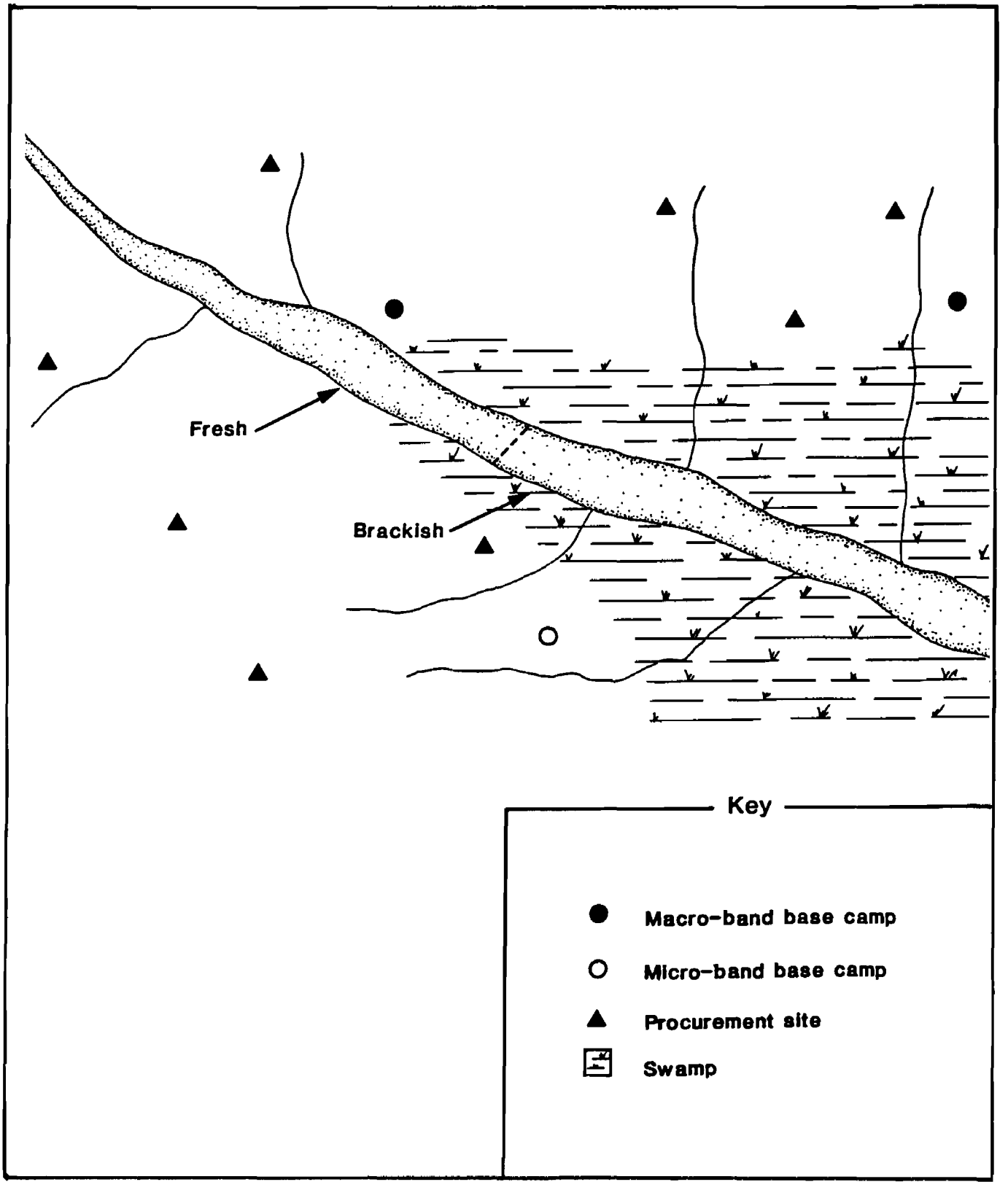
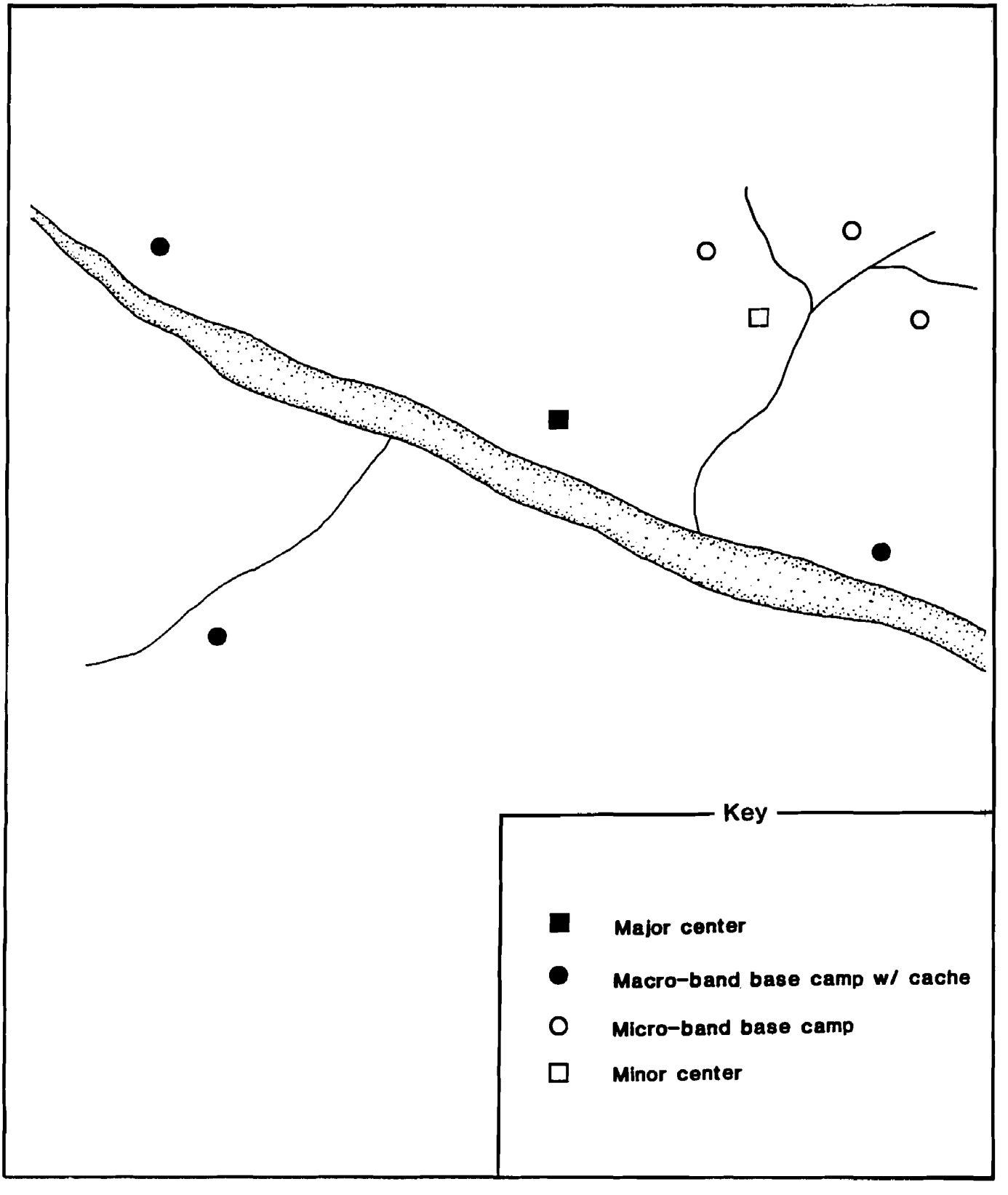


FIGURE 7

Woodland I Mid-Drainage Mortuary/Exchange Center Settlement Patterns



northern fringe of the Slaughter Creek Complex (Custer 1984a). Within the segment of the project area that falls within the Slaughter Creek Complex, and indeed within the entire range of the Slaughter Creek Complex, the reliance on agriculture is minimal (Custer and Griffith 1986). However, some larger Woodland II sites may be expected, such as the Hughes-Willis site (7K-D-21), which is located near the project area.

The primary goal of the Phase II survey was the identification of site limits and the determination of potential eligibility for inclusion on the National Register of Historic Places of all the historic archaeological sites identified by the Phase I survey within the proposed right-of-way. Significance was determined according to the archaeological integrity of the site, particularly the presence of intact sub-surface features and artifacts in undisturbed stratigraphic contexts, and the ability of the site to provide data germane to current archaeological research questions as provided for under Criterion D of the National Register of Historic Places. The current archaeological research questions used in the determination of significance are discussed in greater detail in Custer et al. (1987). Specifically, research on historical archaeological sites within the Proposed State Route 1 Corridor seeks to gather data germane to current research questions identified in the Management Plan for Delaware's Historical Archaeological Resources by De Cunzo and Catts (1990). De Cunzo and Catts identify four primary research domains--or themes--within current historical archaeological practice that can be addressed through research on sites in Delaware. In turn, further research on

these themes will broaden our understanding of more local questions on the history of Delaware and the surrounding Mid-Atlantic region. A summary of each of the four primary research domains identified by De Cunzo and Catts (1990) that will be used to guide archaeological research on sites within the project area follows.

The first and most important research domain archaeologically is the reconstruction and interpretation of the domestic economy of individual sites. Such research seeks to identify the different domestic social and economic strategies of domestic sites. These concerns reflect the centrality of the family as both a social and economic unit within the American historical experience. The goal is to identify discrete economic and social decisions within individual sites and then to use such data to reconstruct local, regional, and even international consumption and production patterns. These broad patterns provide a context for a number of important current research topics in history and archaeology, including questions related to foodways, architecture and land use, degree of economic self-sufficiency, consumer behavior, and the degree of market participation. Moreover, these patterns change over time, space, and socioeconomic status and archaeological evidence is particularly well-suited to addressing such questions. Evidence of changing dietary and subsistence patterns and differences between varying social and economic statuses (especially tenanted and black-occupied sites) are important in our current understanding of Delaware history. Only one site, the W. Eager site (7K-C-383), contains a significant domestic component. No

identifiable black occupation of the site, however, is known.

The second primary research domain concerns manufacturing and trade. Like evidence of domestic occupation, evidence of equipment, raw materials, finished products, and transportation used in all manufacturing processes is particularly well preserved in the archaeological record. Like domestic sites, manufacturing sites in Delaware were critically influenced by transportation conditions and improvements. Also like domestic sites, changing uses of space over time, particularly activity areas, are important evidence of significant social, economic, and technological changes. Evidence of trade and merchant activity, particularly stores and local transportation-related manufacturing/service centers (such as blacksmith and wheelwright shops) are particularly important. No manufacturing or trade components, however, have been identified for any of the sites in the Kent 88 project area.

The third primary research domain is the reconstruction and interpretation of the historic landscape. The historic landscape includes both natural and man-made elements. Current research seeks to reconstruct the natural and cultural environment through the identification and analysis of land divisions, spatial utilization patterns, architectural forms, and local geographic setting. Each of these elements can be reconstructed on a number of levels: site-specific, local or inter-site, sub-regional, regional and national. Each of these elements also changes over time, adding a further dimension to current efforts to reconstruct the Delaware landscape. Such analysis is applicable to all of the historic sites discussed in this report.

The final primary research domain is the analysis and identification of social group identity and behavior through historical and archaeological research. Such research seeks to study the social, religious, political, and economic interaction of different groups. The most appropriate study unit for these questions is the local community. Groups have been most often defined by occupation, socioeconomic status (particularly tenant vs. landowner), and ethnicity (particularly black-occupied sites). No black occupations, however, were identified.

FIELD, LAB AND ARCHIVAL METHODS

The Phase I archaeological field methods included a mixture of pedestrian survey, shovel test pitting, and the excavation of 3'X3' test units within and immediately adjacent to the proposed right-of-way. The entire length of the project area was subjected to pedestrian survey including the main trunk of the proposed highway, connector roads, service roads, and toll booth locations. Some of the areas within the proposed right-of-way had been surveyed as part of the 1985 U.S. 13 Relief Route planning study for Kent County (Custer, Bachman and Grettler 1986, 1987), and Phase I Survey (Bachman, Grettler and Custer 1988). Due to changes in ground surface visibility, many of these fields were resurveyed as part of the Phase I work reported here. The 1985 survey data was incorporated into this report and will be briefly summarized.

The standard excavation procedure was to place shovel test pits (STPs) at 40-foot intervals along the centerline of the right-of-way. The interval was reduced to 10 or 20 feet in