

inside the well. This system was repeated until the well was completely excavated.

The remaining features at the site, predominantly postmolds and rectangular pits, were excavated using standard excavation procedures. Each was cross sectioned and excavated in halves in order to provide a profile view. Soil samples and flotation samples were taken and the remaining feature fill was screened through 1/4 inch mesh.

### LABORATORY METHODOLOGY

A number of different types of artifacts were collected from the archeological investigations at the H. Grant Tenancy site. Because of their varying information potential with regard to the research design and the use of computer coding, different artifact types were handled in slightly different ways. Because of changes in technology and decorative styles, the ceramics and glass were considered to be the most sensitive temporal indicators. In addition, based on previous research (Miller 1980; Beidleman et al 1983; Thompson 1985), the ceramics have been demonstrated to provide a means of evaluating economic status, thus contributing directly to the research design. Therefore, a more detailed attribute analysis of these two classes which would be amenable to computer analysis was used to record these artifact types. The attributes coded for the ceramics and glass are present in more detail below. Metal and the remaining artifact category, Miscellaneous, were simply described according to material, method of manufacture, and function, insofar as these items could be determined for a particular object. Only samples of brick and mortar were saved, the rest was counted, either in the field or in the lab and discarded. Brick which was sufficiently whole to warrant measurement, width, length and thickness dimensions were taken. Conservation measures were used on those artifacts which were felt to warrant this. These measures consisted of electrolysis for ferrous metal, treatment with Polyethylene Glycol 10-00 (Carbowax) for wood and castor oil for leather. Any artifacts which did not merit conservation, either because they were too deteriorated or of limited information potential, were described as well as possible and discarded. Examples of the kinds of artifacts that were discarded are coal, cinders and small brick fragments.

The following artifact analysis procedures were developed in connection with a data recovery project in New Jersey and greater detail on artifact coding is presented in that report (Thompson 1985), only a summary is presented here. Any deviation from that coding system is noted. A number of attributes of potential interest were identified (separately) for the glass and ceramics. Numerical codes were assigned for each of a range of possible variable states. A standard IBM 80 column coding form was subdivided and the numerical codes for each variable state were recorded directly from the artifacts. Artifacts from each Field Specimen Number were sorted and the numerical values were

recorded on the form. Items or groups of items with identical attributes were combined on the form with the set of attributes being recorded only once for the entire set. The coding forms were then entered into an Apple Macintosh computer according to specific provenience groupings (detailed under the Results of the Excavations section) and all analyses were performed by these provenience groupings. The specific variables used in the coding are described below, separately for the glass and the ceramics.

### **Glass Analysis**

Twenty three possible variables were identified for the glass. Variables 1-8 describe the provenience for each artifact and identical provenience coding was used for the ceramics. Variable 1 is the site number. Variable 2 is the excavation unit number, with the North/South designation indicated by the first four digits and the East/West designation indicated by the last four. Artifacts from the controlled surface collection were coded according to the collection square and a specific numerical code under another variable indicated that the items were from the controlled surface collection. Items from a general surface collection were coded under Variable 2 by eight "9's". Variable 3 was feature number, if this variable was not applicable to a certain field specimen number, a zero was coded here. Variable 4 consisted of an Area designation. This variable was used, along with natural horizon to differentiate the various provenience groupings. Items from the controlled surface collection were differentiated under this variable. The fifth variable refers to Soil Horizon. This variable included both cultural and natural horizons and was used to differentiate the various proveniences other than features. Variable 6 was used to code the arbitrary level number directly. Variable 7 consists of Provenience Other. This variable consisted of two digits, the first of which refers to whether or not the matrix from which the artifacts were extracted was native to the site or foreign (originating from a fill horizon derived from another location). All of the contexts from Grant Tenancy were native. The second digit refers to whether or not the artifacts came from a screened or an unscreened context. The final provenience variable was Variable 8 which consisted of directly coding the Field Specimen Number onto the form. Variable 9 refers to the material of the artifacts being coded, in this case, glass. All of the aforementioned variables are identical for glass and ceramics and will not be discussed under the variables below.

For glass, the next variable is Variable 10, "Type-Variety". In general, this variable refers to manufacturing techniques such as flat, blown, pressed and cut. Variable 11 refers to "Function/Shape" and because of the nature of the artifacts, varying degrees of specificity were coded. Major groupings included food consumption, food preparation, household, and food storage as well as more general terms such as unidentified container. Variable 12 records the functional group for each artifact, following South's (1977) breakdown. Variables 13-16 record physical aspects of the artifacts, i.e. "Lip Treatment",

"Body Treatment", "Base Treatment" and "Closure". Variable 17 records surface decoration that has not been coded elsewhere and Variable 18 records the color of the glass, reflecting to some degree the chemical composition. In Variables 19 and 20, the beginning and ending dates for the artifact are coded. With respect to glass, this most often referred to various manufacturing methods such as machine made or mold blown. The dates were derived from a number of sources. Variable 21 records the sherd count for all sherds within a specific Field Specimen Number that possess exactly the same attributes. Variable 23 refers to Vessel Count. This variable could rarely be used, except in the case of almost whole or whole vessels as time constraints during the analysis precluded intensive searches for mends. The final variable for glass consisted of Geographic Origin. This data was most often obtained from embossed labels on the artifact and, in most cases, such labels refer to the contents of the artifact, not the container itself.

### Ceramic Analysis

For the ceramics, the coding for the provenience variables, Variables 1-9 are identical to those used for the glass and will not be reiterated here. Variable 9 refers to material which is, obviously, ceramics.

Variable 10 refers to the ware type. Commonly recognized ware types such as pearlware, creamware, ironstone, etc. were used and these were determined on the basis of paste color, paste hardness and texture. Variable 11 refers to the outer covering of the ceramic fabric. The distinction between clear and clear lead was arbitrary and was assigned on the basis of ware type since this could not be determined from the artifact itself. It was assumed that whiteware and equally modern wares possessed non-leaded clear glazes. Variable 10 is used to describe Method of Decoration. Three digits are used for this variable with the first digit referring to plastic decoration such as embossing, engine turning, et., with the second two digits referring to surface designs such as transfer printing and hand painting. color of Decoration was coded in Variable 13. This code refers only to the color of decoration and not the glaze in the case of colored glazes. If more than one color was present, the most dominant color was recorded or if no clear dominant color could be determined, it was coded as 99 for polychrome. Variable 14, Variety, was used for specific patterns or motifs, or to provide greater specifics about the artifact. For example, the "Rebekah at the Well" motif or the "Lion and the Unicorn" mark. Variable 15 was used to code the Function/Shape of the vessel insofar as this could be determined from the sherd. The general categories are similar to those used for glass, however, they are more specifically related to categories defined by Beidleman (et al 1983) in their study of collections from Alexandria, Virginia. This variable could rarely be coded except in the most general sense. Variable 16 refers to South's Function Groups (South 1977). Variable 17 refers to Type Number and follows South's table (South 1977:210-212). In addition to those types defined

by South in his table, a more general category called "General Pearlware was added. This was used for artifacts on which the decorative element was too incomplete to allow specific assignment into one of South's types or which the decorative element was not included by South, such as sponged. The entire date range for all of South's pearlware types was used to date this type, i.e. 1780-1890, on the premise that it could date anywhere within this range. Variables 18 and 19 were used to code directly for the dates for South's types unless more specific dating information such as a maker's mark was present. Variable 20 was used to code for the presence or absence of the ceramic manufacturer's mark, the specifics of which were noted in the margin. The sherd counts (Variable 21) and the vessel counts (Variable 22) were coded as they were for glass.

In the Grant Tenancy ceramic analysis, Variable 23 consisted of Econscale Type. The Econscale types are numbers which are arbitrarily assigned to specific ware types and decorative types based on their cost to the consumer when purchased, following Miller (1980). These were coded directly for the Grant Tenancy project because a major portion of the research design was to analyze the various economic aspects of the site. The analytical process is described in more detail under the Results of the Excavations section.

## RESULTS OF THE INVESTIGATIONS

### Archival

The following presents the results of the archival research undertaken during the investigations. The field in which the Grant Tenancy site is located is part of a large holding in which the main structure was in the vicinity of a house presently occupied by Mrs. A. L. Downs. A number of different names are present for this structure on historic maps. On the Rea and Price Map of 1849 (Figure 7), the structure is labeled "W. Tatnall". The deed research for the previous investigations was terminated with the sale of the property by Henry Grant to John Peoples in 1866 (Deed Book H8, page 142, New Castle County records). This is undoubtedly the "H. Grant" whose name appears on the property on the Lake and Beers "Map of the Vicinity of Philadelphia and Wilmington", published in 1860. (Figure 8) This is the only map which shows a structure in the immediate vicinity of the Grant Tenancy site. "H. Grant" is also shown next to two houses on the same map that are at or near the locations of the two large houses that are still standing on the property. The relatively limited appearance of the structure on maps, along with its association (by the name "H. Grant") with two large structures on a sizeable plantation suggested the hypothesis that it was a dependency, probably a tenancy.

Subsequent property research, however, revealed a rather complicated pattern of shifting property lines across the site location, and suggested some additional hypotheses about site function. Figure 9 presents a chain of title for the property.