ISLAND FARM SITE EXCAVATION RESULTS

This section of the report describes the specific results of excavations at the Island Farm Site (Figure 36, Attachment I). Table 95 shows the summary catalog of artifacts from this site. A total of 116 features were excavated including 24 Type 1 features, six Type 2 features, 23 Type 3 features, 55 Type 4 features, two Type 5 features, and six features that did not fit within any specific categories. Figure 104 shows a map of the features from the Island Farm Site. Interpretation of these data are presented below.

Chronology

Chronological interpretations for the Island Farm Site can be drawn from diagnostic projectile points, ceramics, and radiocarbon dates. The distribution of features with diagnostic artifacts and radiocarbon dates across the Island Farm Site is also discussed with reference to the history of its occupation.

Plow Zone Diagnostic Artifacts. Plates 31 and 32 show samples of projectile points found in the plow zone soils in various areas of the Carey Farm and Island Farm sites. Diagnostic projectile points from the plow zone of the Island Farm Site illustrated in Plate 31 include a Dalton-Hardaway point (Plate 31A), which is the earliest point found in the project area, a Kirk/Palmer (Plate 31C), a teardrop (Plate 31H), two Lehigh/Koens-Crispin broadspears (Plate 31K-L), and a triangle (Plate 31V). Stemmed points from the plow zone illustrated in Plate 32 include two Type I stem (Plate 32A-B) and one Type E stem (Plate 32E). Table 96 lists the numbers of diagnostic points found at the Island Farm Site and Table 10 lists the dates associated with all diagnostic projectile point types found at the Carey Farm and Island Farm sites based on recent reviews of the archaeological chronology of the central Middle Atlantic region (Custer 1989; 1995). In general, the Island Farm Site plow zone soils contained more varied projectile point types compared to the varied areas of the Carey Farm Site.

Diagnostic ceramics were also found in the plow zone soils of the Island Farm Site and the varied types are listed in Table 97. In most cases, there were only a few sherds of each ceramic type present in the plow zone excavation units. Table 12 lists the dates associated with these ceramic types. The range of ceramic types found in the plow zone soils of the Island Farm Site is much more limited than the range seen in other areas of the Carey Farm Site.

Feature Diagnostic Artifacts. Individual diagnostic artifacts and assemblages of diagnostic artifacts were found in the features excavated at the Island Farm Site. Plate 83 shows some of the projectile points and Plate 84 shows the diagnostic

TABLE 96
Diagnostic Projectile Points from Plow Zone Soils - Island Farm Site

POINT TYPE	NUMBER OF POINTS
Dalton-Hardaway	1
Kirk/Palmer	1
Type I Stem	5
Type D Stem	7
Type E Stem	1
Type B Stem	8
Lehigh/Koens-Crispin Broadspear	2
Generalized Broadspear	1
Teardrop	2
Generalized Side-Notched	1
Triangle	5

TABLE 97
Diagnostic Ceramics from Plow Zone Soils, Island Farm Site

CERAMIC TYPE	NUMBER OF UNITS
Coulbourn Cord-Marked	1
Mockley Cord-Marked	11
Hell Island	2

Key to Plate 83

A - Jasper Type B Stem - Feature I92
B - Jasper Type B Stem - Feature I92
C - Jasper Type B Stem - Feature I92
D - Jasper Type B Stem - Feature I81
E - Chert Type B Stem - Feature I61
F - Jasper Type B Stem - Feature I154
G - Argillite Type B Stem - Feature I71
H - Jasper Type B Stem - Feature I82
I - Jasper Type D Stem - Feature I23
J - Quartzite Type D Stem - Feature I75
K - Jasper Type D Stem - Feature I1
L - Jasper Type E Stem - Feature I169
M - Jasper Teardrop - Feature I2
N - Quartz Triangle - Feature I128
O - Chert Triangle - Feature I30

PLATE 83

Projectile Points from Features, Island Farm Site

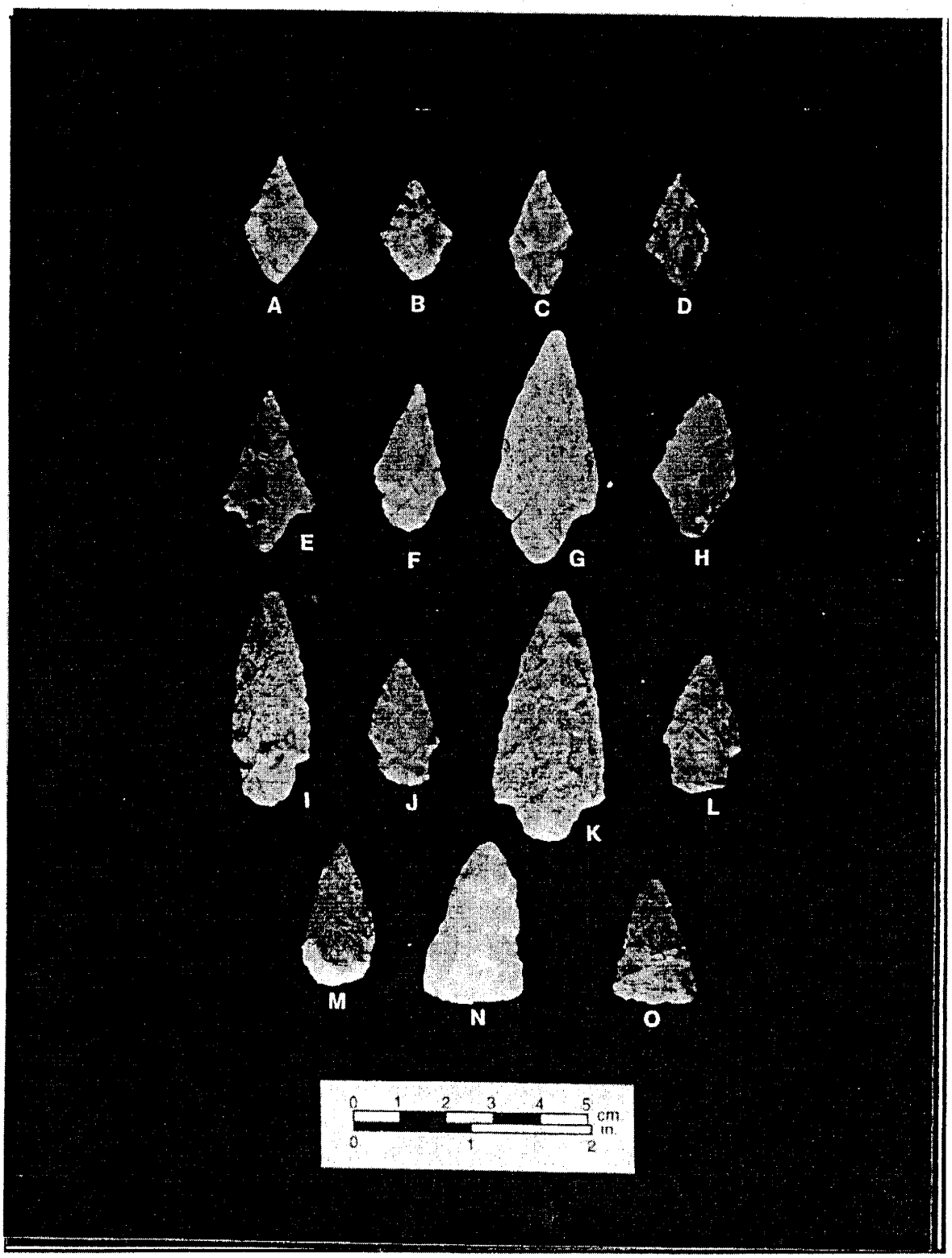


PLATE 84

Diagnostic Artifact Assemblages from Features, Island Farm Site

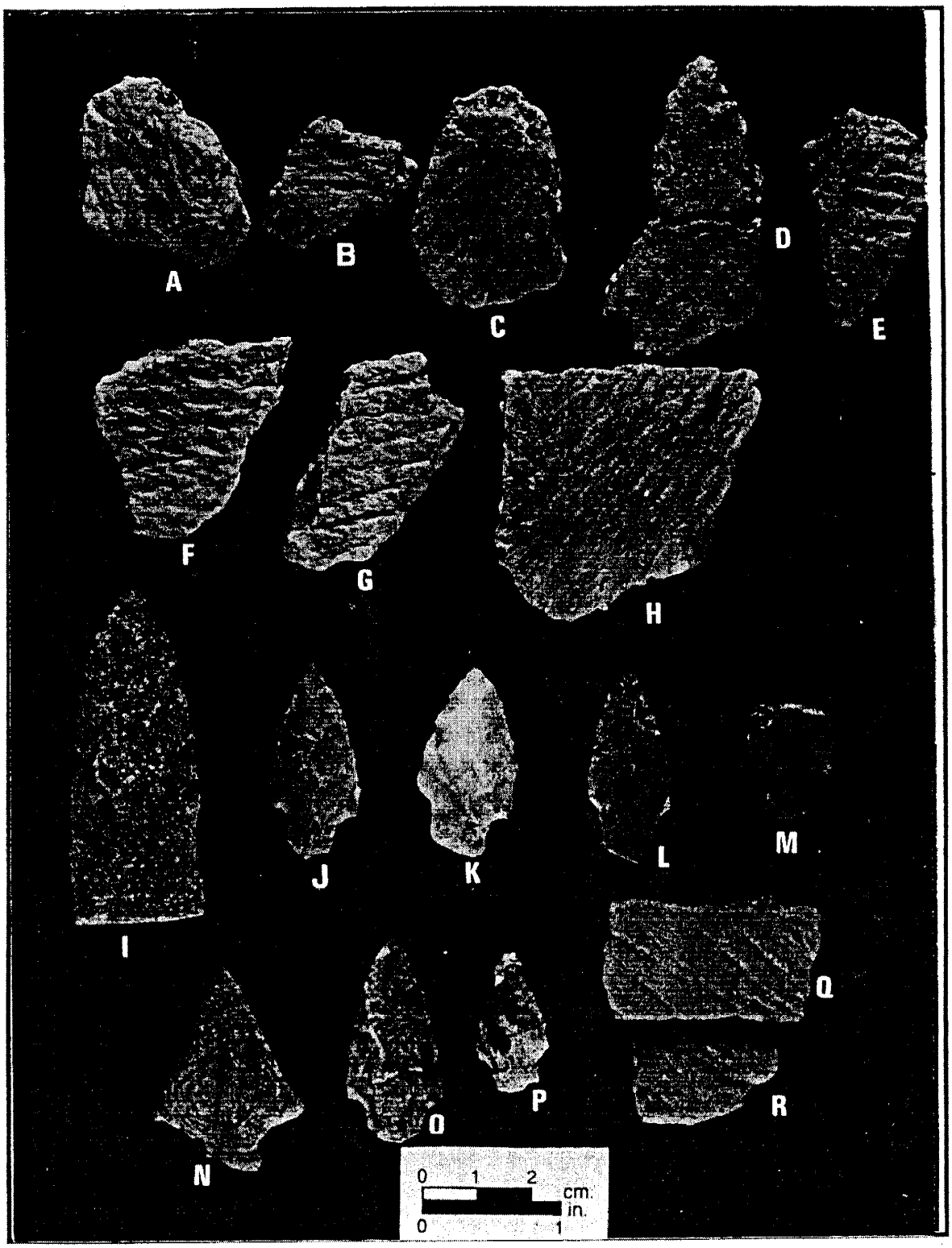


TABLE 98
Diagnostic Artifact Assemblages - Island Farm Site

FEATURE NUMBER	ASSOCIATION
I92	3 Type B Stem Points (Plate 83A-C)
I210	Nassawango Cord-Marked Vessel (Plate 84A-C) and Radiocarbon Date of 1390 +/- 100 B. P. (Beta-51419)
I34	Seldon Island Smoothed Vessel (Plate 84D), Wolfe Neck Cord-Marked Vessel (Plate 84E), and Radiocarbon Date of 1610 +/ 120 B. P. (Beta-52097)
I128	Nassawango Cord-Marked Vessel (Plate 84F-H) and Radiocarbon Date of 330 +/- 110 B. P. (Beta-51418)
I5	1 Large Triangle (Plate 84I), 4 Type D Stem (Plate 84J-M), Radiocarbon Date of 1100 +/- 100 B.P. (Beta-52095)
I12	1 Stanly Point (Plate 84N), 2 Type D Stem (Plate 84O-P), Accokeek Cord-Marked Ceramics (Plate 84Q), Radiocarbon Date of 1900 +/- 140 B. P. (Beta-52096

artifact assemblages. Table 98 lists the diagnostic artifact assemblages from the Island Farm Site features. Some of the associations listed in Table 98 include ceramics and radiocarbon dates and these are discussed in the next section of this report. Feature I5 included five projectile points including a large triangular point (Plate 84I) and four Type D points (Plate 84J-M) and this assemblage probably dates to the later part of the Middle Woodland time period. Feature I12 produced a Middle Archaic Stanly point (Plate 84N), two Type D stem points (Plate 84O-P), and sherds from Accokeek cord-marked ceramics (Plate 84Q). The Stanly point is obviously intrusive, but the other points are similar to points associated with Early Woodland ceramics in other parts of the Carey Farm Site.

Table 99 lists the varied projectile points found in the Island Farm features, and some of these points are illustrated in Plate 83. A large number of small Type B stem points are present, and based on associations with ceramics in other features, these points probably date to the Early and Middle

TABLE 99
Diagnostic Projectile Points from Features - Island Farm Site

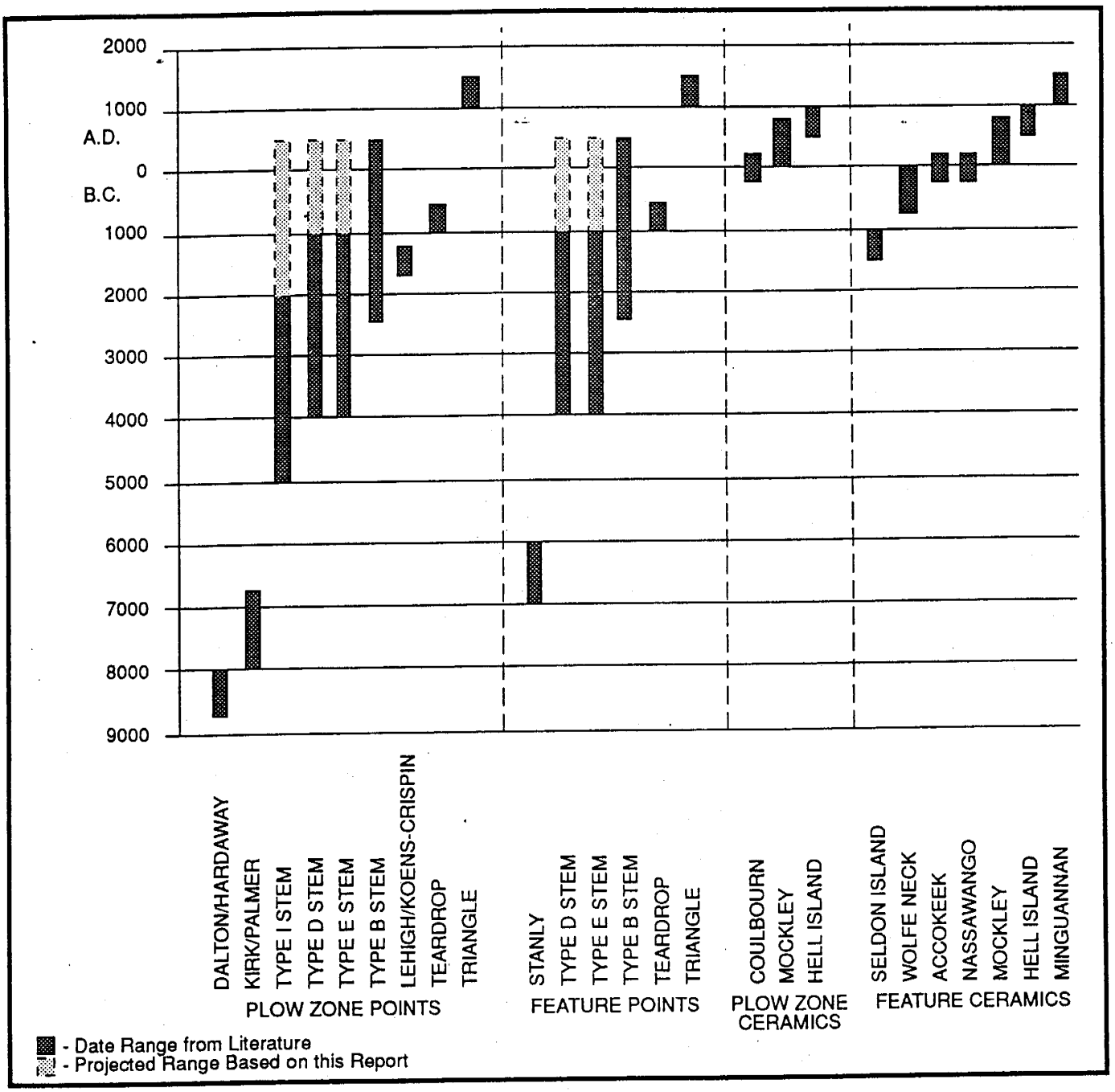
POINT TYPE	NUMBER OF POINTS	NUMBER OF FEATURES
Stanly	1	1
Type D Stem	7	6
Type E Stem	2	2
Type B Stem	10	10
Teardrop	1	1
Triangle	3	3

Key to Plate 84

A-C - Nassawango Cord-Marked Ceramic Sherds - Feature I210
D-E - Seldon Island Smoothed Ceramic Sherds - Feature I34
F-H - Nassawango Cord-Marked Ceramic Sherds - Feature I128
I - Quartzite Triangle Point - Feature I5
J - Jasper Type D Stem - Feature I5
K - Quartz Type D Stem - Feature I5
L - Chert Type D Stem - Feature I5
M - Jasper Type D Stem - Feature I5
N - Chert Stanly/Neville Point - Feature I12
O - Chert Type D Stem - Feature I12
P - Jasper Type D Stem - Feature I12
Q-R - Accokeek Cord-Marked Ceramic Sherds - Feature I12

FIGURE 105

Date Ranges - Island Farm Site



Woodland time period. Table 100 lists the diagnostic ceramics found in Island Farm features including those illustrated in Plate 84. Figure 105 summarizes the date ranges represented by the diagnostic artifacts from both the plow zone and the features of the Island Farm Site. It is clear that the Island Farm Site was occupied on numerous occasions from the late Paleo-Indian Period to the Late Woodland time periods. However, the greatest number of occupations took place during the Early and Middle Woodland periods. Middle Woodland Mockley ceramics are the most common type represented in the plow zone and Early Woodland Wolfe Neck ceramics are the most common type in the features.

TABLE 100
Diagnostic Ceramics from Features - Island Farm Site

CERAMIC TYPE	NUMBER OF FEATURES
Seldon Island	1
Wolfe Neck Cord-Marked	7
Accokeek Cord-Marked	2
Nassawango Cord-Marked	2
Mockley Smoothed	1
Mockley Cord-Marked	1
Hell Island Cord-Marked	3
Minguannan Smoothed	1

TABLE 101
Radiocarbon Dates - from the Island Farm Site

LAB NUMBER	DATE (B.P.)	CALIBRATED DATE	FEATURE NUMBER
Beta-51418	330 +/- 110	A.D. 1440 - (1590) - 1660	I128
Beta-51419	1390 +/- 100	A.D. 560 - (664) - 759	I210
Beta-52095	1100 +/- 100	A.D. 779 - (915) - 1019	I5
Beta-52096	1900 +/- 140	A.D. 91 - (107) - 317	I12
Beta-52097	1610 +/- 120	A.D. 260 - (426) - 570	I34

Radiocarbon Dates. Table 101 lists the five radiocarbon dates obtained from charcoal samples from features at the Island Farm Site and the diagnostic artifact assemblages associated with these dates are listed in Table 98. The Nassawango ceramics in Feature I210 (Plate 84A-C) are associated with a radiocarbon date (Beta-51419) with a calibrated intercept date of A.D. 664. This date is much later than the known date range for these ceramics (Custer 1989:170-175) and this date is probably not an accurate reflection of the date of the feature's use. Similarly, the Seldon Island and Wolfe Neck ceramics in Feature I34 (Plate 84D-E) are associated with a radiocarbon date (Beta-52097) with a calibrated intercept date of A.D. 426. This date is also outside the known date range for the associated ceramics (Custer 1989:170-175) and is not an accurate reflection of the feature's age. Finally, the date (Beta-51418) from Feature I128, which also included Nassawango ceramics (Plate 84F-H) is much too young for the associated ceramics and is not considered to be a valid date.

The assemblage of points from Feature I5 (Plate 84I-M) is associated with a radiocarbon date (Beta-52095) with a calibrated intercept date of A.D. 915. The mix of point types, particularly the large triangular point (Plate 84I), is typical of the later stages of the Middle Woodland Period and the

date is probably a valid representation of the feature's use. The radiocarbon date from Feature I12 (Beta-52096) has a calibrated intercept value of A.D. 107, and this date matches the known date range for the associated Accokeek ceramics. Thus, this date accurately reflects the age of the feature.

Distribution of Dated Features. Figure 106 shows the distribution of dated features at the Island Farm Site. The small number of dated features in this site area precludes the identification of any feature clusters. In general, the mix of features of unknown age, and the absence of any clear-cut patterning in the spatial distribution of features indicate that the Island Farm Site was periodically reused as a base camp. There is no evidence to suggest that there was a single large "village" occupation of the Island Farm Site.

FIGURE 107

Distribution of All Artifacts in Plow Zone Soils - Island Farm Site

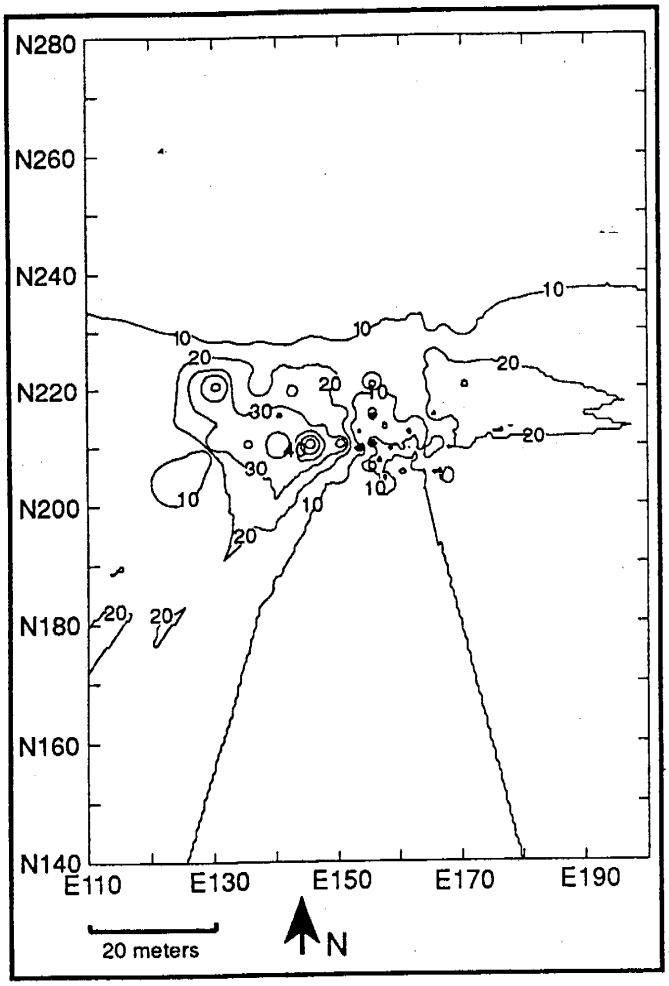
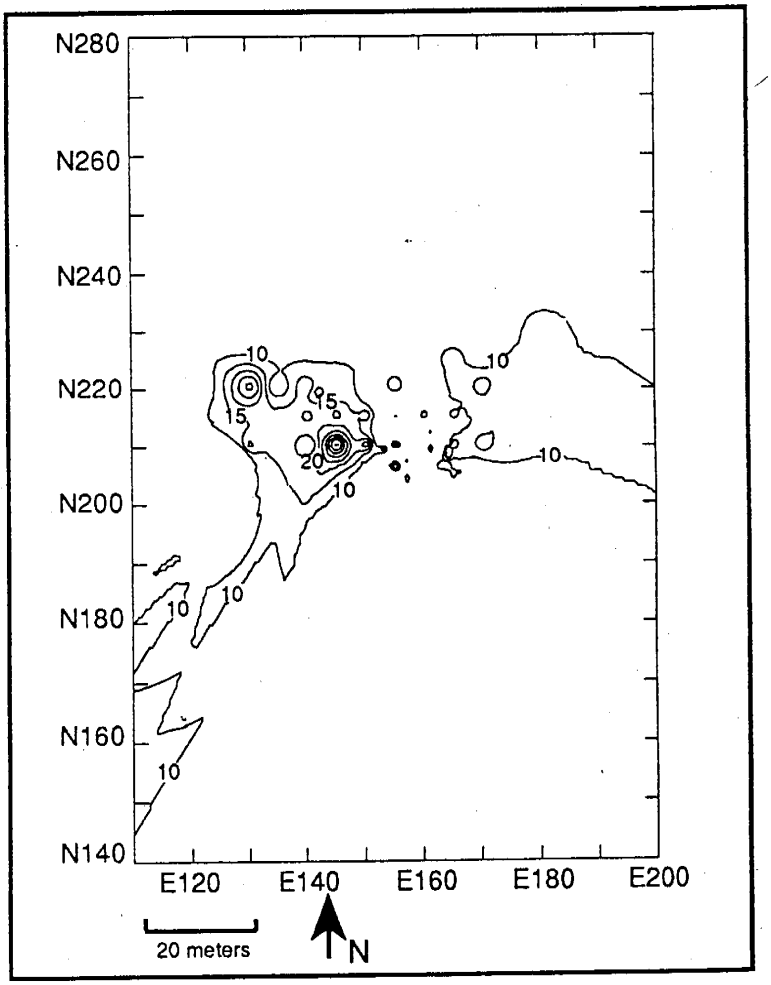


FIGURE 108

Distribution of Debitage Without Cortex in Plow Zone Soils - Island Farm Site

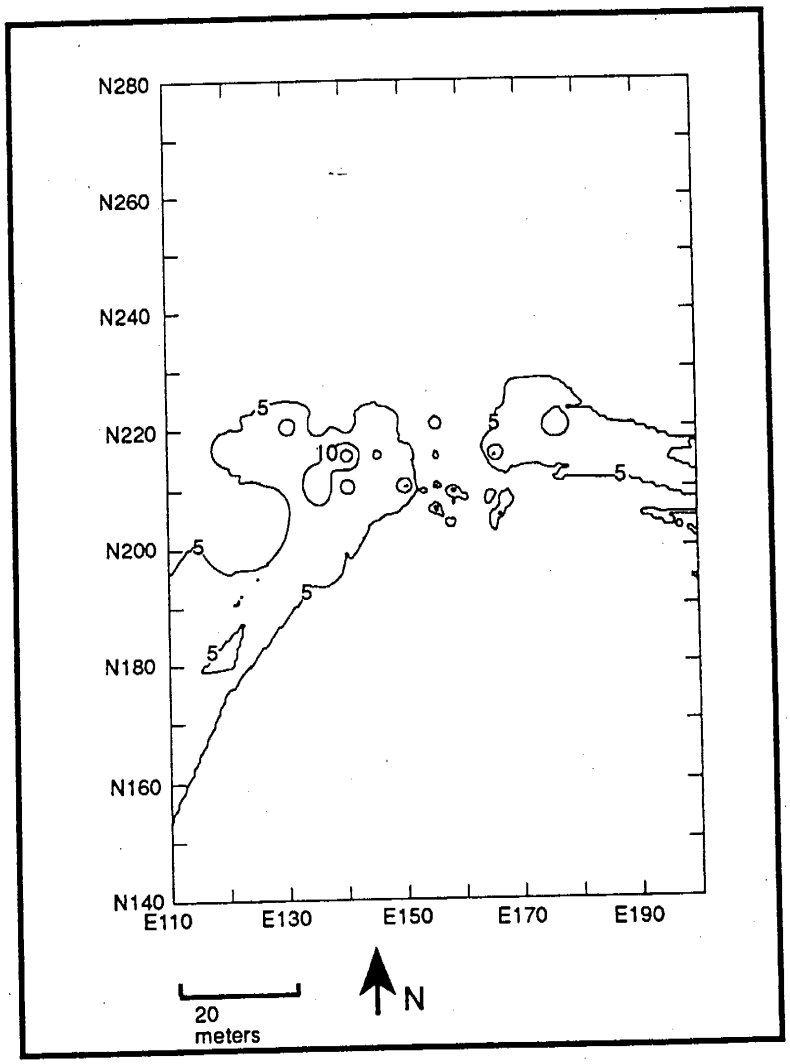


Plow Zone Artifact Distributions

Plow zone artifact distributions were mapped for the Island Farm Site. Figure 107 shows the distribution of all artifacts and they are most numerous in the southern section edge of the Island Farm Site near the tree line located along the St. Jones River. Sub-surface pit features are concentrated in this area (Figure 104) and the plow zone artifact distribution is correlated with the distribution of the sub-surface features at the Island Farm Site. Figures 108 and 109 show the distribution of debitage with and without cortex. Debitage comprises the vast majority of the plow zone artifacts and, consequently, it is not surprising that these distributions are similar to the total artifact distribution. There are no real differences between the distributions of debitage with and without cortex indicating that there was no spatial differentiation in the reduction of tools from primary and secondary materials, or various stages of stone tool production. No ceramic concentrations were noted.

FIGURE 109

Distribution of Debitage With Cortex in Plow Zone Soils - Island Farm Site



Feature Distributions

As was previously noted, a total of 116 features were excavated at the Island Farm Site including 24 Type 1 features, six Type 2 features, 23 Type 3 features, 55 Type 4 features, two Type 5 features, and six features that did not fit within any specific categories. Thus, of the 116 features, only 26 percent are house-related features. Compared to other areas of the Carey Farm Site, the Island Farm Site has a much more diverse feature assemblage. The implications of this difference will be discussed later in this report. As was noted previously, there were insufficient dated features to identify any feature clusters or household clusters. In general, the features are spread across the Island Farm Site. There is no evidence of any kind of a planned community such as those seen at other sites in the Middle Atlantic region (Kinsey and Graybill 1971; Custer, Hoseth, Guttman, and Iplenski 1993).

TABLE 102

Lithic Artifact Assemblage and Raw Materials from Plow Zone Soils, Island Farm Site

	RAW MATERIALS								
TOOL TYPE	Quartzite	Quartz	Chert	Jasper	Rhyolite	Argillite	Ironstone	Other	TOTAL
Flakes	77 (21)	357 (83)	345 (100)	1014 (415)	8	31	1	17 (5)	1850 (624)
Utilized flakes	0	6 (3)	30 (11)	67 (23)	0	0	0	0	103 (37)
Flake tools	0	0	2 (2)	10 (8)	1	0	0	0	13 (10)
Points	0	1 (0)	2 (0)	7 (0)	0	2	0	0	12 (0)
Early stage biface rejects	0	6 (4)	1 (1)	3 (3)	0	3	0	0	13 (8)
Late stage biface rejects	0	0	2 (1)	2 (0)	1	0	0	0	5 (1)
Other bifaces and fragments	0	1 (0)	0	1 (0)	0	1	0	0	3 (0)
Miscellaneous stone tools	2 (2)	0	2 (2)	5 (2)	0	0	0	0	9 (6)
Cores	0	2 (2)	3 (3)	8 (7)	0	0	0	0	13 (12)
TOTAL	79 (23)	373 (92)	387 (120)	1117 (458)	9	37	1	17 (5)	2021 (698)

( ) - Artifacts with cortex

TABLE 103

Lithic Artifact Assemblage - Cortex Percentage from Plow Zone Soils, Island Farm Site

	RAW MATERIALS								
TOOL TYPE	Quartzite	Quartz	Chert	Jasper	Rhyolite	Argillite	Ironstone	Other	TOTAL
Flakes	27	23	29	41	0	0	0	29	34
Utilized flakes	–	50	37	34	–	–	–	–	36
Flake tools	–	–	100	80	0	–	–	–	77
Points	–	0	0	0	–	0	–	–	0
Early stage biface rejects	–	67	100	100	–	0	–	–	62
Late stage biface rejects	–	–	50	0	0	–	–	–	20
Other bifaces and fragments	–	0	–	0	–	0	–	–	0
Miscellaneous stone tools	100	–	100	40	–	–	–	–	67
Cores	–	100	100	88	–	–	–	–	92
TOTAL	29	25	31	41	0	0	0	29	35

Analysis of Lithic Technology

The following section describes the lithic technologies of the Island Farm Site. Additional analyses of topics in lithic technologies pertaining to all site areas are presented later in this report along with a summary discussion of ceramic technologies. Tables 102 - 104 summarize the lithic utilization data for artifacts from plow zone soils of the Island Farm Site using the same conventions applied to the other areas of the site, and Tables 105 - 107 summarize the same data for lithic artifacts from features. Comparison of Tables 103 and 106 shows that the incidence of secondary lithic utilization is similar in both the plow zone and feature assemblages.

TABLE 104

Lithic Artifact Assemblage - Raw Material Percentage by Tool Types from Plow Zone Soils, Island Farm Site

	RAW MATERIALS							
TOOL TYPE	Quartzite	Quartz	Chert	Jasper	Rhyolite	Argillite	Ironstone	Other
Flakes	4	19	19	55	<1	2	<1	1
Utilized flakes	0	6	29	65	0	0	0	0
Flake tools	0	0	15	77	7	0	0	0
Points	0	8	17	58	0	17	0	0
Early stage biface rejects	0	46	7	23	0	23	0	0
Late stage biface rejects	0	0	40	40	20	0	0	0
Other bifaces and fragments	0	33	0	33	0	33	0	0
Miscellaneous stone tools	22	0	22	55	0	0	0	0
Cores	0	15	23	62	0	0	0	0
TOTAL	4	18	19	55	<1	2	<1	<1

TABLE 105

Lithic Artifact Assemblage and Raw Materials from Features, Island Farm Site

	RAW MATERIALS							
TOOL TYPE	Quartzite	Quartz	Chert	Jasper	Rhyolite	Argillite	Ironstone	Other	TOTAL
Flakes	323 (70)	381 (109)	517 (162)	1262 (477)	18	100	2	35 (0)	2638 (818)
Utilized flakes	0	5 (2)	20 (11)	61 (30)	0	0	0	6 (0)	92 (43)
Flake tools	2 (0)	2 (1)	2 (1)	8 (6)	0	0	0	0	14 (8)
Points	0	1 (0)	2 (0)	9 (1)	0	2	0	0	14 (1)
Early stage biface rejects	2 (0)	1 (0)	3 (2)	4 (3)	0	0	0	0	10 (5)
Late stage biface rejects	1 (0)	0	2 (0)	2 (1)	0	0	0	0	5 (1)
Other bifaces and fragments	0	7 (0)	1 (0)	4 (0)	0	1	0	0	13 (0)
Miscellaneous stone tools	1 (1)	1 (0)	1 (1)	0	0	0	0	0	3 (2)
Cores	2 (2)	12 (8)	0	7 (7)	0	0	0	0	21 (17)
TOTAL	331 (73)	410 (120)	548 (177)	1357 (525)	18	103	2	41 (0)	2810 (895)

( ) - Artifacts with cortex

TABLE 106

Lithic Artifact Assemblage - Cortex Percentage from Features, Island Farm Site

	RAW MATERIALS								
TOOL TYPE	Quartzite	Quartz	Chert	Jasper	Rhyolite	Argillite	Ironstone	Other	TOTAL
Flakes	22	29	31	38	0	0	0	0	31
Utilized flakes	--	40	55	49	--	--	--	0	47
Flake tools	0	50	50	75	--	--	--	--	57
Points	--	0	0	11	--	0	--	--	7
Early stage biface rejects	0	0	67	75	--	--	--	--	50
Late stage biface rejects	0	--	0	50	--	--	--	--	20
Other bifaces and fragments	--	0	0	0	--	0	--	--	0
Miscellaneous stone tools	100	0	100	--	--	--	--	--	67
Cores	100	67	--	100	--	--	--	--	81
TOTAL	22	29	32	39	0	0	0	0	32

Like the assemblages for other site areas discussed previously, the Island Farm Site cortex percentages for the major lithic materials range between 30 - 50 percent, showing relatively extensive use of secondary materials. In the Island Farm Site assemblages, presence of cortex is also higher among the individual tool categories of utilized flakes, flake tools, early stage bifaces, miscellaneous tools, and cores, as was also the case for other assemblages from other areas. Utilized flakes have cortex percentages closer to the values noted for flakes. As was noted for the other previously discussed areas, the differences in cortex percentages between flakes and simple utilized flakes on one hand, and more carefully prepared tool forms such as formalized flake tools, bifaces and cores may reflect the fact that prehistoric inhabitants of the Island Farm Site were undertaking two basic types of lithic reduction techniques. On the other hand, they were using bipolar reduction of cobbles to produce a series of flakes that were used in unmodified, or only slightly modified, forms. Because many of these flakes could have come from the interior of the cobble, the percentage of artifacts with cortex would have been lower. This reduction produced the flakes and utilized flakes. The second reduction activity involved more careful reduction of cores, using both bipolar and bifacial reduction techniques, and produced tools that were more likely to still retain their cobble cortex.

Tables 104 and 107 show the varied use of lithic raw materials among the different artifact types from the Island Farm Site. Jasper is clearly the most commonly used stone with chert and quartz used somewhat less frequently. The remaining raw materials constitute only a very small portion of the assemblage. As was the case for other areas, rhyolite and argillite are not common even though they are frequently important parts of Middle Woodland lithic assemblages in nearby areas. The assemblage from the Island Farm Site is also similar to other areas in that the high cortex percentages in the major lithic types, jasper, chert, and quartz, probably indicate that they were derived from local cobble and pebble deposits along the St. Jones River.

TABLE 107

Lithic Artifact Assemblage - Raw Material Percentage by Tool Types from Features, Island Farm Site

	RAW MATERIALS							
TOOL TYPE	Quartzite	Quartz	Chert	Jasper	Rhyolite	Argillite	Ironstone	Other
Flakes	12	14	20	48	<1	4	<1	1
Utilized flakes	0	5	22	66	0	0	0	6
Flake tools	14	14	14	57	0	0	0	0
Points	0	7	14	64	0	14	0	0
Early stage biface rejects	20	10	30	40	0	0	0	0
Late stage biface rejects	20	0	40	40	0	0	0	0
Other bifaces and fragments	0	54	8	31	0	8	0	0
Miscellaneous stone tools	33	33	33	0	0	0	0	0
Cores	9	57	0	33	0	0	0	0
TOTAL	12	15	19	48	<1	4	<1	1

TABLE 108

Tool Types - Island Farm Site

	PLOW ZONE	FEATURES	TOTAL
Points/Knives	11	14	25
Late Stage Bifaces	5	5	10
Early Stage Bifaces	13	10	23
Drills	1	0	1
Concave/Biconcave Scrapers	3	0	3
Bifacial Side Scrapers	2	3	5
Unifacial Side Scrapers	4	0	4
Trianguloid End Scrapers	8	3	11
Slug-Shaped Unifaces	0	0	0
Wedges	0	0	0
Primary Cores	1	4	5
Secondary Cores	12	17	29
Denticulates	0	1	1
Gravers	0	0	0
Regular Utilized Flakes	103	67	170
Blade-Like Utilized Flakes	0	25	25
TOTAL	163	149	312

FIGURE 110

Tools and Bifaces from the Island Farm Site

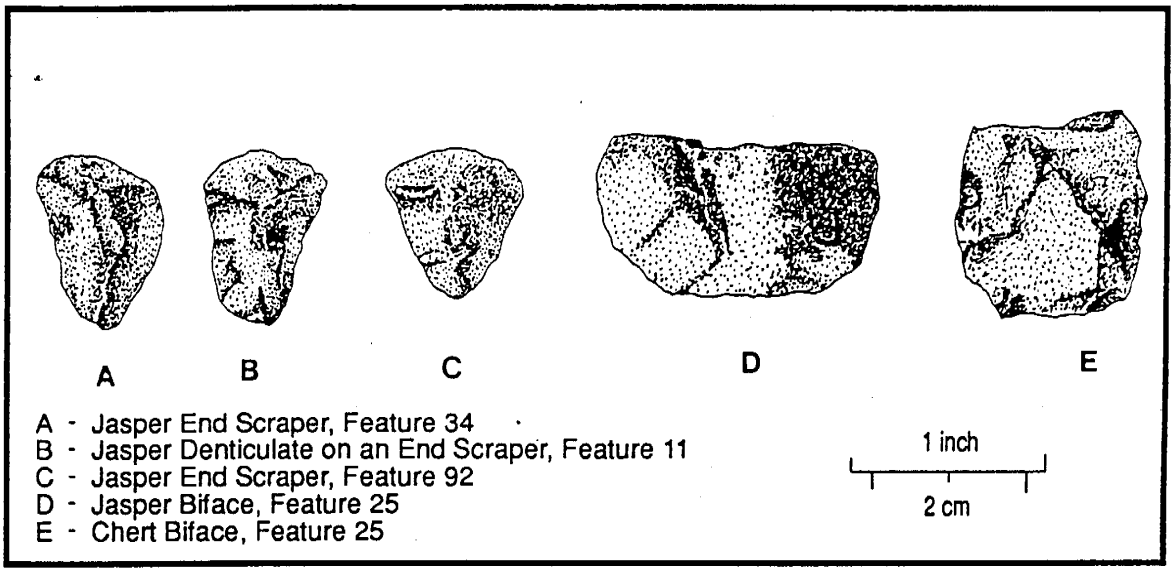


Table 108 lists the varied tool types found in the Island Farm Site. Figure 110 shows a sample of flake tools from the Island Farm Site including an end scraper (Figure 110A), a compound tool with end scraper and denticulate working edges (Figure 110B), and an end scraper (Figure 110C). An end scraper is also illustrated in Plate 39K and a bifacial side scraper in Plate 39D. Over 6800 lithic artifacts were found in the features and plow zone soils of the Island Farm Site, but only 312 tools were present and account for only four percent of the assemblage. Of the 312 tools in the Island Farm Site assemblage, 195 (62%) are generalized utilized flake tools. Thus, formalized tools account for only three percent of the of the total assemblage. As was the case for the other site areas discussed previously, generalized flake tools derived from cobble and pebble reduction were more commonly used at the Island Farm Site than formal flake tools designed to fit specific functions.

Bifaces were present in the assemblage from the Island Farm Site, and examples are illustrated in Plates 40E, Plate 42A, and Figure 110D-E. These examples show the presence of cortex and a variety of reduction stages are represented. As such, the biface assemblage shows that secondary materials were being fully reduced to manufacture bifaces that could then be made into projectile points.