12. FINDINGS AND CONCLUSIONS

THE CURRENT INVESTIGATION has identified sites and standing structures that span the length of human occupation on the local landscape. They can be grouped into four categories:

1. Properties that are immediately eligible for the National Register of Historic Places.
2. Properties that almost certainly are eligible, but require further research at the Phase II level in order to meet the technical requirements of registration, such as definition of boundaries.
3. Properties that are culturally interesting, but not qualified for listing in the National Register.
4. Properties that do not possess the quality of significance and need not be further considered.

If a property falls into one of the first two categories, three treatment options are available for consideration:

1. The property can be avoided by the proposed project. Plans can be modified to accommodate preservation.
2. If the property cannot be avoided altogether, the impact of the project can be reduced to an acceptable minimum.
3. If the property cannot be avoided, the impact must be mitigated, which frequently means excavating an archæological site. In the case of standing structures or buildings, it means architectural recordation, which routinely should be accompanied by archæological examination of both buried and above-ground elements.

Results are shown in table form on page 93. All three alternate treatments are recommended for properties in the corridor.

SITES EAST OF ST. JONES RIVER

Three properties east of the St. Jones River were investigated. During an earlier survey of the broader corridor, significant sites were identified east of the river, but it was determined that they did not overlap the current project's impact area. Within the selected right-of-way, three areas were investigated. All were found to be ineligible under criterion D because they have not yielded signficant information, and there is no reason to believe that further digging would yield additional information.

FORD FARM SITE LOCUS E

The prehistoric site, or node in a larger cluster of sites, in the proposed right-of-way is clearly significant. While its eligibility for the National Register is unquestioned, additional (Phase II) tests will be necessary to determine its extent within the proposed right-of-way. For this purpose, we recommend a linear series of tests, similar to the ones already undertaken, to sample all the apparently undisturbed areas of the bluff within the right-of-way, as well as a larger test.

During Phase I tests, the one-meter squares were so narrow and deep that investigators were unable to see and interpret soil profiles, and it was impossible to investigate a large apparent feature that first appeared at 120 centimeters below the surface.

We recommend that the vertical extent of the stratified part of the site be tested with a single pit, as much as four meters square. Because the site contains complex and very deep strata, a large test unit is a logistical necessity. Such a unit would be large enough to detect features and buried landscape elements and would increase the likelihood of interpreting artifacts in contexts.

FORD FARM SITE FIELD LOCI (A, B, C)

During the original survey of the corridor (Heite and Blume 1992), the authors identified several minor concentrations of prehistoric artifacts.

These loci were catalogued with the Ford Farm site. These concentrations, located on high ground near bay/basin features, were interpreted as plow-disturbed minor procurement locations, to be catalogued but not further tested. Given their low priority in the state management plan (Table, page 95), they are not eligible for the National Register.

SCOTTEN-FORD AGRICULTURAL COMPLEX

The Scotten-Ford toft, including the sawmill, is a remarkably complete representative example of an early twentieth-century farmstead, with surviving structures representing every major movement in Kent County agriculture. It certainly is eligible for the National Register, for its demonstrated ability to contribute to our understanding of the technological history of agriculture and for its completeness as a district, as demonstrated in the table on page 96.

The sawmill site is the most vulnerable part of the complex. Its significance lies in the fact that its archæological evidence is intact. Most of this evidence consists of tools and insignificant-looking bits of metal, which could be innocently removed or disturbed by curious construction workers or casual visitors.

Protection of the fragile sawmill remains should be among the highest preservation priorities.

The farm buildings will suffer only visual impact, which can be minimized or fully mitigated by planting. Visual intrusion is a minor problem, compared to the possible physical effects of the new road's construction on the economic and archæological resources. Loss of arable land, a significant part of the original Scotten holding, might endanger the viability of the entire farm as a going concern and thereby endanger the continued survival of the historic resources as a system.

NATHAN WILLIAMS SITE

Tests confirmed that the Nathan Williams toft site possesses integrity as well as significance. It is also Register eligible, and boundaries are suggested, based upon artifact locations and natural borders. No further Phase II tests are recommended.

Current plans call for the site's core to be included in the new road's right-of-way. If it cannot be avoided, the site should be fully excavated.

Part of the original Williams holding lies west of the present road, and actually contains the sites of the four houses that are no longer standing in the Mosley community. There is a remote possibility that remains of the Williams toft survive on the four acres, eighteen square perches west of the road. Therefore, this area should be treated as a high-probability area and archæologically tested at the Phase II level before any construction is contemplated there.

MOSLEY SETTLEMENT

The settlement along McKee Road, established a century ago by Jacob Mosley, represents an intact record of a former ethnic community. It meets more than the minimum criteria for its identification as a district (Table, page 96). When this study began, only one house had been lost, and one other had been moved for preservation. A third house, the Frazier Carney House, was burned to the ground by the Robbins Hose Company while the study was under way. The Mosley-Bratcher house met a similar fate as this report was going to press.

The site of the moved William Morris Carney house is significant, has subsurface integrity and is eligible under criterion D. Archæological tests confirmed that subsurface features exist.

Agricultural features attached to these tofts remain untouched by surrounding urban sprawl. The potential significance of these visible features and their buried counterparts for the study of agricultural archæology cannot be understated.

SUMMARY OF RESOURCES

PROPERTY NAME	LEVEL OF SURVEY ACCOMPLISHED	CULTURAL AFFILIATION	NR CRITERION APPLIED	AREAS OF SIGNIFICANCE OR OF INTEREST	STATE PLAN PROPERTY TYPE	NR PROPERTY CATEGORY
1. ELIGIBLE RESOURCES:						
Scotten-Ford Agricultural Complex	Phase II surface reconnaissance and photo recording	European-American	A, D	Industrial archæology Industry Agriculture	Field Toft Structure	District
Mosley Rural Archæological and Historic District	Phase II test squares and photo recording	Acculturated Native American	A, D	Archæology Ethnic heritage Agriculture	Field Toft	District
Nathan Williams House Site	Phase II	African-American	D	Agriculture Archæology Ethnic heritage	Field Toft	Site
Delaware Rail Road (Conrail)	Reconnaissance (as part of the Scotten-Ford toft survey)	European-American	A	Transportation	Railroad	Structure
2. REQUIRE FURTHER SURVEY:						
Ford Farm Locus E	Phase I test squares	Prehistoric Native American European-American	D	Prehistoric archæology Recreation	Procurement Undirected recreation	Site
3. INTERESTING, BUT NOT ELIGIBLE:						
Trailer Sales	Phase I machine trenches	European-American	D	Agriculture	Ditch Field	Site
Athletic Field	Phase I test squares and machine trenches	European-American	D	Agriculture	Ditch Field	Site
White Marsh Open Field Locus	Phase I test squares, shovel test pits, and machine trenches	European-American	D	Agriculture	Field Manuring spread	Site
4. INELIGIBLE:						
Ford Farm open field loci (A, B, C)	Phase I Walkover only	Aboriginal	D	Prehistoric archæology	Procurement	Sites

AGRICULTURAL/INDUSTRIAL ARCHÆOLOGY

Investigations of the Scotten-Ford toft raise serious planning questions relative to industrial archæology in rural Delaware. The sawmill remains on the site are an important resource with high integrity. Taken together, the sawmill and the adjacent toft constitute a potentially valuable resource for students of the industrial archæology of agriculture.

The Scotten-Ford property and the Mosley community are together the same property John Pleasanton left to his children, with the addition of twelve acres to the north. Land use, including ground cover, on this tract can be documented back to the eighteenth century. It is even possible to delineate tenant holdings back 200 years.

After a period of absentee ownership and neglect, the tract was divided between two sorts of resident ownership, which can be compared and contrasted archæologically.

Aside from the fact that it may be the only surviving farmland in Kent County that has never been farmed by anyone but moors, the Mosley community could provide a valuable archæological window into the lives of smallholders generally; the surrounding farms, including the Scotten-Ford tract, were farmed under different economic and social conditions that might also have left a characteristic archæological fingerprint.

ASSESSING CROFT SIGNIFICANCE

The five criteria for evaluation of historical archæological properties can be applied to agricultural fields, because they are just another category of site, as discussed on page 22. Industrial aspects of an agricultural site can, and should, be evaluated against the industrial criteria discussed on pages 28 and 29, above.

In the case of fields, our information base is not yet robust enough to derive criteria for evaluation. Some tentative ideas can, however, be put forward and applied experimentally. The following suggestions are proposed as a broad outline for evaluating at context that would include the industrial archæology of agriculture.

Documentation: Documented sites of agricultural experiments, or sites where husbandry processes are well documented, can yield more information than undocumented sites. Of particular interest would be the home farms of members of agricultural reform groups.

Integrity: An agricultural field's potential archæological integrity can easily be assessed by superficial examination. If ditches are clearly visible, old hedgerows are still in place, and the field boundaries can be clearly seen, the property almost certainly possesses subsurface integrity. Patterns of plowscars can be seen by stripping, and these in turn can be used to interpret change in husbandry practice.

Representativeness: If one seeks to formulate general principles, he or she must identify representative sites. A taxonomy of sites, the first step in any formal survey strategy, is needed for agricultural field sites.

Research questions and needs: Since agricultural sites are industrial, research questions should parallel those of industrial archæology, discussed on page 30. These questions include technological innovation, working conditions, ethnicity, gender, diet, standards of living, and family structure.

Association with a person: Fields cultivated by individuals, such as pioneer researchers, may shed light on these persons' careers. But on a broader stage, an agricultural field might reveal considerable information about ethnic or economic groups and their places in society.

Fields on the former Pleasanton property possess a high potential in no less than three categories (Table, below).

APPLICATION OF DELAWARE MANAGEMENT PLAN CRITERIA
FOR EVALUATION OF HISTORICAL ARCHÆOLOGICAL SITES ON THE PLEASANTON TRACT
(See pages 28-29 for a discussion)

Property Name	*Documentation*	*Archæological Integrity*	*Representativeness*	*Research Question and Needs*	*Association with a Person*
Ford Sawmill	Good	Excellent	Excellent	Good	not applicable
Nathan Williams	Poor	Fair	Unknown	Excellent	significant
Mosley Community	Excellent	Excellent	Unknown	Excellent	significant
Scotten-Ford Farm	Excellent	Probably good	Good	Excellent	not applicable

APPLICATION OF DELAWARE MANAGEMENT PLAN CRITERIA FOR EVALUATATION OF PREHISTORIC ARCHÆOLOGICAL SITES

(See page 14 for a discussion)

CHARACTERISTICS IN DESCENDING ORDER	LOCI IDENTIFIED
HIGH POTENTIAL SIGNIFICANCE:	
1. Any site that has never been plowed	Ford Farm locus E (in project area)
2. Plowed but otherwise undisturbed	
3. Plowed base camps of any time period	
MODERATE POTENTIAL SIGNIFICANCE:	
4. Plowed sites associated with bay/basins	
LOW POTENTIAL SIGNIFICANCE:	
5. Plowed, disturbed and eroded sites	
6. Plowed procurement sites	Ford Farm open field loci

SCOTTEN-FORD AND MOSLEY DISTRICTS ON THE PLEASANTON TRACT
APPLICATION OF NATIONAL REGISTER DEFINITIONS OF A DISTRICT
(See National Register Bulletin 16a, 1991, pages 15, 56-57)

DEFINITION	SCOTTEN-FORD	MOSLEY
Possesses significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or æsthetically by plan or physical development	Historically linked by common ownership by one family for a century. Features of the site are linked by function.	Historically linked having been developed and occupied by a close-knit ethnic group that maintained identity here. Features of the site are linked by the original development plan that still prevails over most of the property.
The term district applies to properties having large acreage with a variety of resources, such as a large farm, estate, or parkway	The property contains a variety of resources.	
The term district applies to properties having a number of resources that are relatively equal in importance, such as a neighborhood.		The various moor tofts are relatively equal and formed a neighborhood of farming households occupied by related members of the same ethnic group.
Boundaries at a specific time in history may be considered for delineating boundaries	Boundaries represent the area bought by the grandfather of the present owners a century ago and cultivated by the family during the period of significance.	Boundaries describe the property bought by the founders of the community a century ago and cultivated by their group during the period of significance.
Districts usually consist of contiguous elements.	Except for a railroad (possibly a contributing element) the entire tract is contiguous.	Fields, which possess high integrity and agricultural significance, are contiguous with the residential portions of the district.
A district might contain discontiguous elements when visual continuity is not a factor	Visual continuity is not an issue.	Visual continuity is immaterial in the quality of significance in the area of agricultural history or ethnic history. Visual continuity is unrelated to ethnicity
Methods for determining boundaries of archæological districts include surface observation of site features, topographic or natural features, and land alterations. A study of documents may also be used.	Surface features of agricultural fields are clearly visible. Documentation provides clear boundaries for the activities under study.	Surface features of agricultural fields are clearly visible. Documentation provides clear boundaries for the activities under study. Field features are well defined by long-established boundaries.
Archæological districts may contain discontiguous elements when one or several outlying sites has a direct relationship to the significance of the main portion of the district through common cultural affiliation or as related elements of a pattern of land use and when the intervening space does not have known significant resources.	All parts are contiguous.	Discontiguous parts of the district are linked by common agricultural practice and by family relationship between the cultivators of the farmland. The fields themselves are important archæological resources. Dispersed tofts possess significant common characteristics that are more valuable as a group than as individual sites. The tofts are parts of a group of croft sites, the contiguity of which has not been distrurbed.

PLANNING PRIORITIES

Studies in connection with this project have brought into question some of the state's planning priorities. In particular, Delaware has made no provision for dealing with industrial archæology, even though surrounding states have made considerable contributions to the field.

In the state's comprehensive preservation plan, industrial sites are only barely, if not grudgingly, acknowledged (Heite 1990:115; Ames, Callahan, Herman and Siders 1989:80).

The state management plan for historical archæology ignores the well-established subdiscipline of industrial archæology altogether, even in the discussion of industrial sites and in discussions of other states' guidelines that refer to IA.

Since the subject is not addressed by existing planning documents, Delaware needs a separate industrial archæological management plan, reflecting professional standards and concerns of that subdiscipline. Formulation of such a plan should be assigned the highest planning priority, and qualified industrial archæologists should be consulted whenever industrial sites are evaluated during survey activities.

In the necessarily interdisciplinary practice of industrial archæology, one does not arbitrarily shift one's methodology at grade. An above-ground example of a particular property type is not functionally different from a below-grade example that has been redefined by happenstance into an "archæological resource" rather than a "standing structure." If the preservation program is to consistently recognize resources because of their historical value, it follows that approaches to standing and non-standing structures must be seamlessly continuous.

Carried to a logical extreme, this argument could be used to challenge the logic of having a separate management plan for buried "archæological" resources. Without going too far down the path toward academic nihilism, it should be possible to blur disciplinary boundaries enough to serve each resource on its own merits, independent of artificial disciplinary constraints and semantic paradigms.

Unfortunately, as one eminent archæological practitioner has lamented, "All interdisciplinary effort goes against the grain of current university departmental structures" (Rapp 1992).

EFFECTS OF DEPARTMENTALISM

The same body of evidence will evoke different responses from different observers, depending upon the academic system they represent. In the cultural resources community, there are two different and sometimes mutually exclusive systems of scholarship: the art-historical and the culture-historical. These two systems will interpret the same object differently and define significance from different points of view.

Each system is further divisible into disciplines and subdisciplines. A researcher calling himself an architectural historian might come from a purely art-historical background, trained to look at a building in terms of architectural schools and systems of elaboration. A person self-described as a document-oriented historian might define the building as nothing but the container in which events occurred. An archæologist, on the other hand, might see the same building as a document, or part of a document called a site, that can reveal small details or larger truths about the people who occupied it.

Citing identical evidence, each of these three individuals would nominate the same hypothetical building under a different National Register criterion. Indeed, the nominations could be so radically different, that it would be difficult to determine that they were describing the same resource. Unfortunately, the system has assigned certain classes of resource to the province of particular disciplines, ensuring that interpretation will be limited to one-dimensional, single-viewpoint outcomes.

PROPERTY TYPES ENCOUNTERED

During this project, expected property types were found. Prehistoric procurement sites, rural residential tofts, agricultural fields, and drainage ditches, were identified

at the outset. Sawmills, a component of forestry, were investigated in some detail.

In the first survey report on this corridor, the authors suggested the addition of several functional property categories: undirected recreation properties and casual resource areas (Heite and Blume 1992:98)

More detailed examination of the agricultural croft as an industrial property type led to creation of a more detailed outline of this topic, supplementing the outline in the state planning documents. The following property types were identified in the project area:

- Economic and Cultural Trends
  - Agriculture (croft areas)
    - Products
      - Nursery/Orchard
    - Methods
      - Cultivation
        - Plowing
        - Plow Scars
      - Enclosures
        - Field Edges
      - Drainage and Irrigation
        - Ditches
      - Fertilization
        - Manuring spread
        - Fertilizer residue
  - Forestry
    - Sawmills
  - Mining/Quarrying
    - Borrow pits
      - Sand pits
      - Brick clay pits
      - Casual resource areas
  - Transportation and communication
    - Land
    - Railroad
  - Community Organizations
    - Recreational and cultural
      - Organized athletic fields
        - Tennis courts
        - Baseball diamonds
      - Undirected recreation
        - Dirt bike tracks
        - Sand-pit shooting

UTILITY OF DATA AND METHODS

This is a data-rich survey corridor, where one is almost certainly assured of finding cultural resources at any spot. Excellent documentary resources and good settlement models made site identification easy.

The only unexpected resources were the large number of features at the eastern end of the project area. The pathetic struggle of man against water in Delaware clay soil was amply illustrated by agricultural remains in that area. These findings alerted the researchers to the need to pay more attention to the agricultural field as a research subject.

The most serious constraint on the realization of project objectives was departmentalism. Early in the project review cycle, the consultant was directed to evaluate standing structures from an architectural historical perspective, when the logical approach was to treat the moor community as an archæological district, and the houses as artifacts therein.

Ironically, recognition of the houses has colored all evaluations of the district, diverting attention away from the equally informative non-building elements.

By linking significance narrowly to the standing structures, and by describing the district in terms of houses, one ensures that significant agricultural and archæological remains will be removed from protection after the removal of the houses, which is happening now