

**HISTORIC CONTEXT
MASTER REFERENCE
AND
SUMMARY**

by

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PREFACE

Development of the *Delaware Comprehensive Historic Preservation Plan* and its companion volume, *Historic Context Master Reference and Summary*, was begun in 1985 as a joint venture of the Center for Historic Architecture and Engineering, University of Delaware, and the Bureau of Archaeology and Historic Preservation, Delaware Division of Historical and Cultural Affairs. During the subsequent five years, funding totalling \$61,682 was provided through a series of matching grants from the Historic Preservation Fund to the Center for Historic Architecture and Engineering. Through the Center, the University of Delaware contributed \$30,131.

The first phase was devoted to definition of the relevant historic themes, chronological periods, and geographic zones and to the development of several sample historic contexts. The second phase saw the production by January 1987 of the first draft of the *Historic Context Master Reference and Summary*. Between July 1986 and June 1989, several drafts of the *Delaware Comprehensive Historic Preservation Plan* were produced and presented to the Delaware State Review Board for Historic Preservation. With the board's approval, the draft was shared during 1988 with various nonprofit groups interested in preservation and with government agencies dealing with such issues as planning, housing, transportation, community development, recreation, and preservation. The last of three presentations to these groups was in September 1988. Based on the comments from all of these groups, final versions of both volumes were completed in June 1989.

The *Delaware Comprehensive Historic Preservation Plan* establishes the framework of historic context elements as historic theme, geographic zone, and chronological period (Figure 1). There are 18 historic themes: agriculture; forestry; trapping and hunting; mining and quarrying; fishing and oystering; manufacturing; retailing and wholesaling; finance; professional services; transportation and communication; settlement patterns and demographic change; architecture, engineering, and decorative arts; government; religion; education; community organizations; occupational organizations; and major families, individuals, and events. There are five

FIGURE 1: FRAMEWORK OF HISTORIC CONTEXT ELEMENTS

HISTORIC THEMES	CHRONOLOGICAL PERIODS AND THEMES				
	A. 1630-1730+/- EXPLORATION AND FRONTIER SETTLEMENT	B. 1730-1770+/- INTENSIFIED AND DURABLE OCCUPATION	C. 1770-1830+/- EARLY INDUSTRIALIZATION	D. 1830-1880+/- INDUSTRIALIZATION AND EARLY URBANIZATION	E. 1880-1940+/- URBANIZATION AND EARLY SUBURBANIZATION
01. AGRICULTURE					
02. FORESTRY					
03. TRAPPING/HUNTING					
04. MINING/QUARRYING					
05. FISHING/OYSTERING					
06. MANUFACTURING					
07. RETAILING/WHOLESALE					
08. FINANCE					
09. PROFESSIONAL SERVICES					
10. TRANSPORTATION AND COMMUNICATION					
11. SETTLEMENT PATTERNS & DEMOGRAPHIC CHANGES					
12. ARCHITECTURE, ENGINEERING, AND DECORATIVE ARTS					
13. GOVERNMENT					
14. RELIGION					
15. EDUCATION					
16. COMMUNITY ORGANIZATIONS					
17. OCCUPATIONAL ORGANIZATIONS					
18. MAJOR FAMILIES, INDIVIDUALS, AND EVENTS					

geographic zones: I. Piedmont; II. Upper Peninsula; III. Lower Peninsula/Cypress Swamp; IV. Coastal; and V. Urban--Wilmington (Figure 2). There are five chronological periods: A. 1630-1730 +/- Exploration and Frontier Settlement; B. 1730-1770 +/- Intensified and Durable Occupation; C. 1770-1830 +/- Early Industrialization; D. 1830-1880 +/- Industrialization and Early Urbanization; E. 1880-1940 +/- Urbanization and Early Suburbanization. (Readers will note that discussions of the final period often contain material relating to the period from 1940 to 1980; it seemed more reasonable to include relevant information than to exclude such material on strict chronological grounds.)

Property types provide the mechanism for relating specific historic resources to historic contexts. The *Historic Context Master Reference and Summary* provides defined historic contexts and offers examples of property types where known. It is important to note that the defined historic contexts found in the volume are not fully developed historic contexts. A defined historic context identifies the historic theme, geographic zone, and chronological period; it may identify expected property types; and it may include an estimate of the research material available. To be considered fully developed, a historic context must contain the following items:

- * historic theme
- * geographic zone
- * chronological period
- * information needs
- * reference bibliography
- * method for involving the general and professional public mechanism for updating the context
- * known and expected property types
- * criteria for evaluating existing or expected resources
- * distribution and potential distribution of expected property types
- * goals and priorities for the context and its property types

The *Historic Context Master Reference and Summary* should be used in accordance with the procedures outlined and illustrated in Chapter 4 of the *Delaware Comprehensive Historic Preservation Plan*.

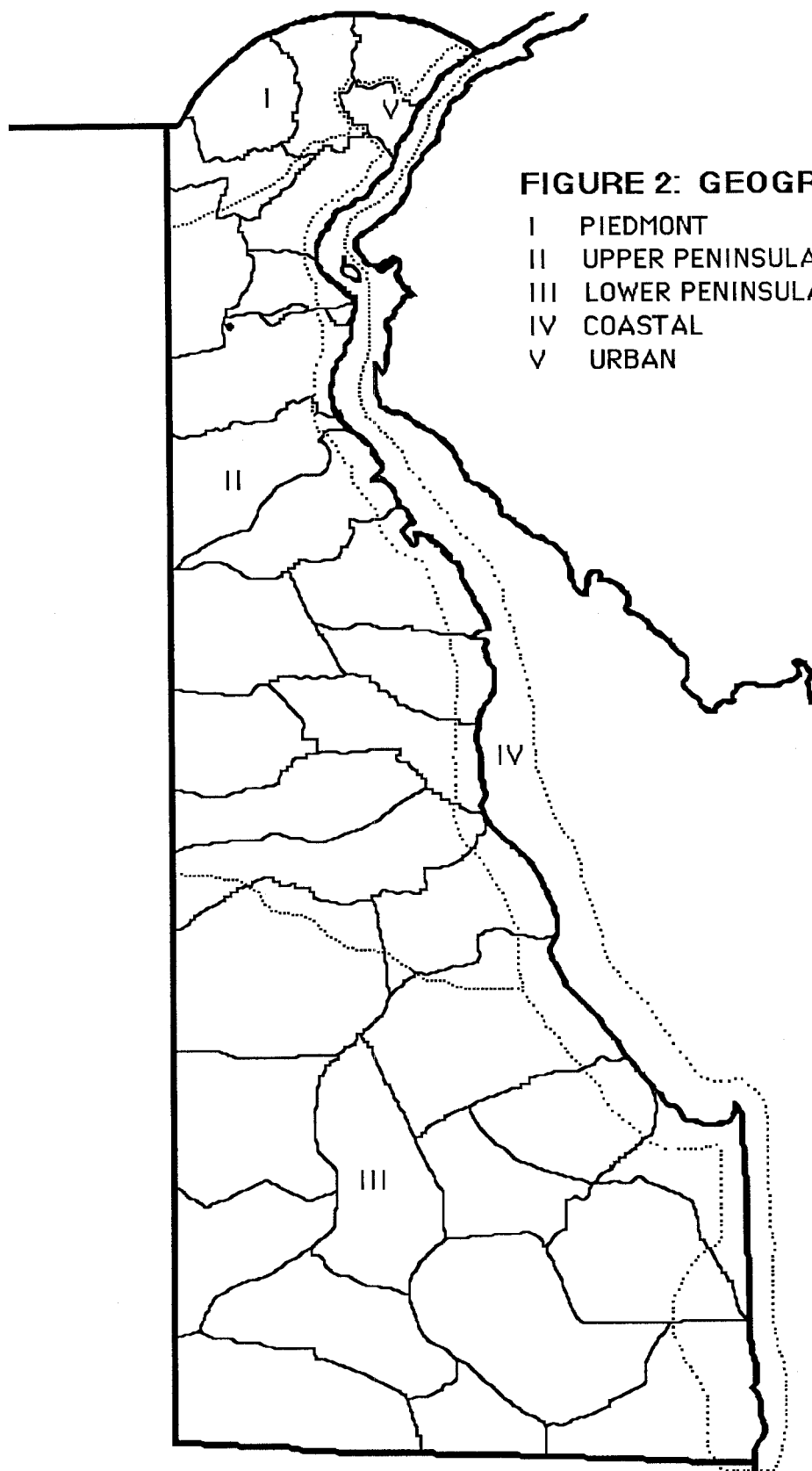


FIGURE 2: GEOGRAPHIC ZONES

- I PIEDMONT
- II UPPER PENINSULA
- III LOWER PENINSULA/CYPRESS SWAMP
- IV COASTAL
- V URBAN

Obviously a work of this nature reflects the contributions of many people. Three groups in particular deserve special mention. From the beginning, this effort was an endeavor shared with the Bureau of Archaeology and Historic Preservation; Daniel Griffith, Alice Guerrant, and Stephen Del Sordo were deeply involved in the development of the plan at every stage. Their support for the project was invaluable. Various staff and students at the College of Urban Affairs and Public Policy provided support and assistance at critical junctures; in particular, we are grateful to Linda Boyd for help in preparing the manuscript and to Gabrielle Lanier for preparing the graphics. We are also indebted to the historic preservation planning professionals in Delaware: Patricia Bensing, Richard Carter, Valerie Cesna, Hubert Jicha III, and Patricia Maley. Their comments were particularly helpful in developing the *Historic Context Master Reference and Summary*.

1. Piedmont Zone

The Piedmont Zone is the northernmost zone and includes all of Mill Creek and Christiana hundreds and most of Brandywine and White Clay Creek hundreds, with the fall line, its southern boundary, running roughly parallel to present-day Route 2. The landscape of the northern and western parts of the zone ranges from nearly level to hilly. The soil is a strong clay, mixed with some loose rock, that is fertile and well-suited for agriculture. In the east, the landscape is flatter but the soil is rockier and less well-drained. Major topographical features in the zone include Iron and Chestnut hills (areas full of iron ore), Mount Cuba, and the Edgar M. Hoopes Reservoir. Prior to any European settlement, the entire area was heavily wooded with a variety of trees: oak, hickory, poplar, walnut, and ash. Indian corn and other fruits grew without cultivation.

The whole region was riddled with major and minor streams, most flowing north to south and draining into the Christina River and then east to the Delaware River. The Christina River was navigable for sailing vessels as far inland as the town of Christiana, and many of the other streams were navigable for small boats. Heavy erosion and silting caused in part by the extensive clearing of land in the zone has severely decreased the depth and width of these streams. The major ones which remain are the Red Clay Creek, White Clay Creek, Brandywine Creek, Pike Creek, Mill Creek, and Muddy Run. Major towns in the zone include Newark, Elsmere, and Arden, but the entire zone is currently threatened by extensive new development.

Exploration and Frontier Settlement

1630 - 1730 +/-

The earliest historic cultural resources were located close to waterborne transportation routes, particularly the Christina and Brandywine Rivers. Resources related to agriculture, fishing and oystering, trapping and hunting, manufacturing, transportation and communication, architecture, engineering, and decorative arts, settlement patterns and demographic

change, religion, and major families, individuals, and events are associated with nonnucleated, water-oriented settlement patterns. Resources related to transportation and communication and architecture, engineering, and decorative arts also appear in conjunction with early trade routes and landings.

Survival rates for property types in the Piedmont Zone, 1630-1730 +/- are very low. Current developmental pressures in the area should give any resource identified with this period a high historic preservation priority regardless of its integrity.

Economic Trends

1A Agriculture. After 1680, William Penn opened the rich farmlands in the Piedmont to settlers, and the economy was soon based on agriculture. The new English settlers were primarily farmers, occupying homesteads of 150 to 200 acres. The transformation of the heavily wooded land into plowable fields and meadows was very slow--one person could convert at most ten acres of woodland in one year. In addition to raising livestock (cattle, swine and sheep), the major field crops were wheat and Indian corn. Early farmers were not overly concerned with maximizing their yield per acre during this period because the land was easily producing more than enough for their needs. Examples of property types for this theme include various farm buildings, particularly English-style barns.

2A Forestry. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumberyards.

3A Trapping and Hunting. The earliest economic structure was based largely on fishing, hunting, and furtrapping. The woods were full of a variety of animals including wolves, deer, bears, opossums, rabbits, squirrels, wild turkeys, pheasants, pigeons, wildcats, rattlesnakes, beavers, otters, muskrats, and many types of water fowl. Examples of property types for this theme include pound net sites and contact trade sites.

4A Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5A Fishing and Oystering. The earliest economic structure was one based largely on fishing, hunting, and furtrapping. This theme requires

more intensive research. Examples of property types for this theme include pound net sites and contact trade sites.

6A Manufacturing. There were a few saw and grist mills in this period, such as the one on Shellpot Creek in the 1680s, but they were very rare. This theme requires more intensive research and the identification of property types.

7A Retailing and Wholesaling. This theme requires more intensive research and the identification of property types.

8A Finance. This theme requires more intensive research and the identification of property types.

9A Professional Services. This theme requires more intensive research and the identification of property types.

10A Transportation and Communication. The Christina River was navigable for sailing vessels as far inland as the town of Christiana, providing the early settlers with easy access to European and colonial trade routes. Most transportation in this period was by water since the first real road was not constructed until 1680. Examples of property types for this theme include roads, ferries, early trails, shipyards, wharves, and landings.

Cultural Trends

11A Settlement Patterns and Demographic Change. Early settlements of the Dutch and Swedish did not penetrate far inland from the Delaware River. It was not until after 1680, when William Penn began making land grants to English settlers, that the Piedmont Zone was used for anything more than hunting, fishing, and furtrapping. Early colonists in this area were mostly Dutch, Swedish, some Finnish, and a few French. After about 1680, with the onset of William Penn's proprietorship, there was a strong influx of English and Welsh immigrants. This larger group rapidly assimilated the earlier settlers who had chosen to remain under Penn. Examples of property types for this theme include ethnic European building practices, the existence of nucleated communities, settlement fortifications, fence lines, contact Indian habitation, initial settlement sites, additions to existing buildings, new settlement in backcountry areas, and court houses.

12A Architecture, Engineering, and Decorative Arts. Most of the housing in this early period was quickly constructed of wood (log or frame) and was not intended for permanent use. Examples of property types for this theme include impermanent and early durable architecture and "open" plan dwellings.

13A Government. Swedish colonists under Peter Minuit established the first permanent settlement in 1638, near the present-day site of Wilmington. Control of the colony shifted back and forth between the Dutch and the Swedish until 1655, and then between the Dutch and the English from 1664 to 1674. In 1682, William Penn became the new proprietor for the land included in the Piedmont Zone, and he began making grants for land much further inland than any settlement had penetrated to that point. This procedure soon brought Penn into conflict with Lord Baltimore over the exact boundary between Maryland and Delaware, a dispute that would continue to be a problem well into the first half of the eighteenth century.

Prior to 1701, the region was governed either by the current Dutch or Swedish governor or by William Penn as proprietor. In 1701, the three Lower Counties separated themselves from Pennsylvania and achieved a new level of independence with their freedom from proprietary control. The first separate Assembly met in New Castle in 1704, initiating Delaware's self-government as a colony.

Examples of property types for this theme include settlement fortifications and the town plan for New Castle.

14A Religion. Religious groups active during this early period included Lutherans (1640), Quakers (1680), and Presbyterians (1720). This theme requires more intensive research. Examples of property types for this theme include churches and meetinghouses.

15A Education. This theme requires more intensive research and the identification of property types.

16A Community Organizations. This theme requires more intensive research and the identification of property types.

17A Occupational Organizations. This theme requires more intensive research and the identification of property types.

18A Major Families, Individuals, and Events. Major individuals

important to this time period include Peter Minuit, Johan Printz, Peter Stuyvesant, Jacob Alrichs, William Penn and his representatives, the Duke of York, and Lord Baltimore. Major historical events in this early period centered on the initial settlement of the area by several European groups. Examples of property types for this theme include proprietary tracts and the houses of key political figures.

Intensified and Durable Occupation

1730 - 1770 +/-

Locations of property types representing this period in the Piedmont Zone remain generally scattered in a non-nucleated fashion. Some early nucleated settlements, such as Newark and Christiana, developed around key points on transportation routes and are represented by resources related to architecture, engineering and decorative arts, retailing and wholesaling, transportation and communication, settlement patterns and demographic change, religion, and major families, individuals, and events.

As with the earlier period, there are not many above-ground remains representing the property types related to these themes. Some widely scattered dwellings survive, but again these are threatened by modern development expansion throughout the zone. Many more archaeological sites associated with this period have been identified, however, reflecting the increase in population and changes in settlement patterns.

Economic Trends

1B Agriculture. The economic structure of the area remained primarily agricultural. Land was still used principally for farming crops and raising livestock. Near the end of the period, farmers began to notice that their fields were no longer as productive as in the past, and they started experimenting with ways to increase their crop yields per acre. Examples of property types for this theme include barns, granaries, hay barracks, and other durable farm buildings.

2B Forestry. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumber yards.

3B Trapping and Hunting. This theme requires more intensive research.

Examples of property types for this theme include "cultivated" marsh and pound nets.

4B Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5B Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6B Manufacturing. The only industries were a few saw and grist mills situated on the major creeks. This theme requires more intensive research and the identification of property types.

7B Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include rural and village stores.

8B Finance. This theme requires more intensive research and the identification of property types.

9B Professional Services. This theme requires more intensive research and the identification of property types.

10B Transportation and Communication. Small towns and villages appeared and a network of roads was developed to transport produce to market, both local (Wilmington) and as far away as Philadelphia and Baltimore. Grubb's Landing was one of the earliest shipping points, operating in the 1740s and 1750s. Examples of property types for this theme include roads, ferries, taverns, wharves, toll houses, and landings.

Cultural Trends

11B Settlement Patterns and Demographic Change. During this period the major change in the Piedmont landscape was the gradual clearing of more and more woodland for crops and meadow use. In 1739, the Borough of Wilmington was officially granted a charter. This led to the planned construction of a fairly large town that required support in the form of food supplies from the surrounding countryside. Farmers now had a steady market nearby for their surplus produce.

Demographic patterns are difficult to discern for this period except to note that settlement of the rich agricultural lands continued at a steady rate. The villages that existed, such as Centreville, were small in

size and were located mostly along the routes laid out for the transport of produce to Wilmington, Philadelphia, and Baltimore. Their main function was to serve the people who moved along those routes on a regular basis.

Examples of property types for this theme include small towns, increased numbers of farmsteads and building sites, nonnucleated steading patterns, and three- to five-unit field patterns.

12B Architecture, Engineering, and Decorative Arts. Housing was still constructed primarily of wood but with more permanent methods. Also, farm complexes were beginning to include a greater number of buildings with more specialized functions. Examples of property types for this theme include more durable building, stair-passage plan dwellings, and public buildings.

13B Government. In 1750 the boundary dispute with Maryland was permanently settled. The line was set at a 12-mile radius from the New Castle Court House. Land titles could now be definitely clarified and proved, and farmers no longer feared the arbitrary loss of their lands. Examples of property types for this theme include the new public buildings such as court houses and jails.

14B Religion. This theme requires more intensive research. Examples of property types for this theme include evangelical meetinghouses, Quaker meetinghouses, and Anglican churches.

15B Education. This theme requires more intensive research and the identification of property types.

16B Community Organizations. This theme requires more intensive research and the identification of property types.

17B Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include farmsteads and mill villages.

18B Major Families, Individuals, and Events. This theme requires more intensive research. Examples of property types for this theme include houses and businesses of politically and economically powerful people, private family cemeteries, and the confirmed border between Delaware, Maryland, and Pennsylvania.

Early Industrialization

1770 - 1830 +/-

In this period the location of resources related to agriculture, forestry, mining and quarrying, transportation and communication, and architecture, engineering, and decorative arts remain generally non-nucleated. Resources related to manufacturing, retailing and wholesaling, and settlement patterns and demographic change are located in nucleated patterns largely centered on mill towns or points on transportation routes. Structures associated with religion, occupational organizations, and major families, individuals, and events are found in both types of locations.

Survival rates for property types representing this period are good for dwellings, workers housing, taverns and major agricultural buildings. While millseats and mills, ranging from gunpowder manufacture to merchant mills, are in evidence throughout the Piedmont Zone, most possess little mechanical integrity. Overall, the historic landscapes and cultural resources of this zone are more uniformly threatened than anywhere else in Delaware. Early suburbanization around Wilmington and more recently in the former rural areas of Mill Creek and Christiana hundreds poses a real threat for 1770-1830 +/- cultural materials. Still, critical reviews based on integrity and relative significance are required for common property types, while rarer types may garner preservation protection even though they have a greater loss in period historic fabric.

Economic Trends

1C Agriculture. The economy remained largely agrarian throughout the first half of the period. The farmers in the Piedmont Zone became very concerned with finding methods for restoring the productivity of their soil. They experimented with systems of crop rotation, allowing fields to lie fallow, and different types of fertilizer. Their major field crops were wheat, barley, and Indian corn, much of which was transported to local markets for sale. They also raised beef cattle for market and, as a part of their restoration experiment, began planting a few fields in new crops such as clover and timothy. Average farm size decreased by more than 30 percent between 1798 and 1820 while the amount of land that was improved

rose by 10 percent--an early indication of intensification of agriculture. Most farms were still small-scale operations. Examples of property types for this theme include bank barns and live fencing (hedgerows).

2C Forestry. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumberyards.

3C Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4C Mining and Quarrying. This theme requires more intensive research. Examples of property types for this theme include lime kilns and granite quarries.

5C Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6C Manufacturing. After 1800 a growing number of industries began to alter the economic base. Some of the new industries included powder and snuff mills, tanneries, several forms of textile mills, the Eastburn lime kilns, and the saw and grist mills which continued to increase in number. The first cotton factory opened in 1795, and in 1802 Eleuthere Irenee du Pont opened his black powder mill on the Brandywine River. This theme requires more intensive research. Examples of property types for this theme include saw mills, grist mills, powder mills, textile mills, and associated workers housing.

7C Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include rural and village stores.

8C Finance. This theme requires more intensive research and the identification of property types.

9C Professional Services. This theme requires more intensive research and the identification of property types.

10C Transportation and Communication. Transportation was now mostly by road instead of water, particularly after 1802 when bridges were built over a number of the major creeks. This theme requires more intensive research. Examples of property types for this theme include roads, bridges, and taverns.

Cultural Trends

11C Settlement Patterns and Demographic Change. During the second half of this period a few saw, grist, and merchant mills began to appear along the larger streams. As a result of erosion from the extensive clearing of land over the last century, these streams had been steadily growing narrower and shallower. Few were navigable for anything but a canoe or rowboat and many had disappeared altogether, but those that remained could provide adequate power for many mills. This period witnessed the growth of the Borough of Wilmington into a major urban area.

Population growth during this period was substantial between 1800 and 1830, increasing as much as 30 percent in Mill Creek Hundred from 1810 to 1820. This may have been due partly to the increased need for workers in the new mills that were being erected. Many of the new workers were Irish immigrants seeking to escape the famine in Ireland.

Examples of property types for this theme include five- to seven-unit field patterns, mill-based towns, crossroad villages, the extensive growth of towns, immigrant housing and worker complexes, and stream silting forcing public works and the relocation of landings.

12C Architecture, Engineering, and Decorative Arts. The most common house type was the one-and-a-half story hall-parlor plan which had two rooms on the ground floor and possibly a shed kitchen at the side or rear. The most common farmstead (31 percent) consisted of a dwelling plus one agricultural outbuilding. The remaining farms varied greatly in content--from farms with no outbuildings at all to ones with a dwelling and two or more domestic structures and two or more agricultural structures. Examples of property types for this theme include hall-parlor and stair-passage plans and greater numbers of specific-function farm buildings.

13C Government. In 1777, the seat of government for the new state was moved from New Castle to Dover. This theme requires more intensive research. Examples of property types for this theme include boundary markers.

14C Religion. During this period there were several additional religious groups in the area, including Methodists, Roman Catholics, and Anglicans/Episcopalians. In addition, the first all-Negro church was built

in 1813. Examples of property types for this theme include meetinghouses, chapels, and churches.

15C Education. This theme requires more intensive research and the identification of property types.

16C Community Organizations. This theme requires more intensive research and the identification of property types.

17C Occupational Organizations. The occupational structure remained primarily agricultural for the first half of this time period, but after 1800 a growing portion of the population became involved in some fashion with the new industries that opened along the streams. Examples of property types for this theme include tenant/owner housing and millworker/owner housing.

18C Major Families, Individuals, and Events. Prominent individuals for this period included E.I. du Pont, Jacob Broom, the Wollaston family, and Joseph England. The single major event for the first two decades of this period was the Revolutionary War and the period of national reorganization that followed. The only Revolutionary War battle to occur on Delaware soil took place in 1777 (the Battle of Cooch's Bridge). Examples of property types for this theme include the houses of major landowners and millowners, Revolutionary War fortifications, and War of 1812 fortifications.

Industrialization and Early Urbanization

1830 - 1880 +/-

Location patterns for resources related to agriculture are more directly affected by urban expansion in and around Wilmington (Urban Zone) and reflected by settlement patterns and demographic change. Farms remain scattered evenly throughout the zone, while manufacturing enterprises remain clustered around natural power sources defined by watercourses like the Brandywine, Mill, Red Clay, and White Clay creeks. Architecture, engineering and decorative arts and transportation and communications link the entire landscape together.

Survival patterns for the Piedmont Zone in the 1830-1880 +/- period are now under direct threat from zone-wide low-level, high-density develop-

ment (specifically 1975-1989 landscape changes in the Pike Creek and Mill Creek valleys). While many structures with high levels of integrity and significance remain and require critical review on issues of material integrity, rarity, physical condition, and areas of significance, it is important to recognize that they are uniformly endangered.

Economic Trends

1D Agriculture. Farm sizes were growing smaller as a result of many years of inheritance divisions. This caused a need for intensive cultivation of all the land held by a particular family. However, severe erosion of the soil also created a need for great care of the land in order for it to produce effectively. The major market crops were beef steers and butter. The butter yield per cow was higher in this zone than anywhere else in the state. In addition, farmers grew some wheat for market, corn and oats for their own personal use, and hay as winter fodder for their livestock. Every foot of available land was utilized in some way, even if it remained forested as woodlot. The arrival of the railroad in this period made it possible for farmers to move perishable crops to market with greater speed and less chance of loss through rot. Examples of property types for this theme include dairy barns and granaries with attached corn cribs.

2D Forestry. This theme requires more intensive research and the identification of property types.

3D Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4D Mining and Quarrying. New industries included the mining of iron ore in the vicinity of Iron Hill and Chestnut Hill and the quarrying of Brandywine blue stone. This theme requires more intensive research. Examples of property types for this theme include granite quarries, iron mines, and lime kilns.

5D Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6D Manufacturing. During this period, industry began to be more important to the economy than farming. Although the actual number of

industries decreased, the ones that remained exerted a very powerful influence over their communities. In 1831, Joseph Bancroft opened the Bancroft Cotton Mills on the Brandywine River. Other new industries, such as rolling mills, flouring mills, and the slaughter houses near Mount Cuba followed quickly. The introduction of the railroad allowed much more convenient transport of products from the new mills to the markets where they could be sold. Resources associated with manufacturing also begin to exhibit signs of small-scale urban residential design reflected in workers' housing. Examples of property types for this theme include textile, saw and grist mills, and slaughter houses.

7D Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include stores, warehouses, markethouses, and docks.

8D Finance. This theme requires more intensive research and the identification of property types.

9D Professional Services. This theme requires more intensive research. Examples of property types for this theme include doctors' and lawyers' offices.

10D Transportation and Communication. Four railroad lines were constructed in the Piedmont Zone during this period: in 1831, the Philadelphia, Wilmington and Baltimore line; in 1869, the Wilmington and Northern line; in 1872, the Wilmington and Western line; and in 1886, the Baltimore and Ohio line. These lines made the railroad a much more viable means of transport than roads for almost everything except local travel. Examples of property types for this theme include railroad lines, depots, roads, trolley lines, canals, and bridges.

Cultural Trends

11D Settlement Patterns and Demographic Change. While industry played a major role in the landscape, it did not actually take up a great deal of space. Its major effect on the landscape was the towns that sprang up around the mills. Communities such as Ashland, Auburn, Yorklyn, Rockland, Marshallton, and Hockessin provided housing and other basic needs for the workers who crowded the mills searching for employment. Towns such as

Newark and Greenville grew up around the new railroad stations. The majority of the land remained in use as farmland.

Population growth continued at a steady rate of about 5 percent per decade, rising to 10 percent between 1850 and 1860. Individual farm size continued to decrease, resulting in highly intensive use of the land that was left. Industries were now exerting a very powerful influence over many communities since they controlled a majority of the available jobs.

Examples of property types for this theme include larger mill towns and railway lines, country estates, middle-class suburbs in Wilmington vicinity, town and village growth, new mill towns, and housing, churches, and community centers for immigrant and worker communities.

12D Architecture, Engineering, and Decorative Arts. During this period new architecture in the towns tended toward multi-family dwellings, such as duplexes for the mill workers. In the rural areas, farm complexes were being affected by the trend toward multifunctional buildings, such as barns with stabling below, granaries with corn cribs on either side, and odd combinations like a carriage house with a poultry house and a corn crib attached to it. Examples of property types for this theme include Victorian eclectic architecture, multifunctional farm buildings, and large dairy barns.

13D Government. This theme requires more intensive research. Examples of property types for this theme include public buildings, courthouses, and town halls.

14D Religion. Growing religious groups included Baptists, Methodists, Episcopalians, and Roman Catholics (particularly near the mills which attracted Irish immigrants). This theme requires more intensive research. Examples of property types for this theme include churches and meeting-houses with associated buildings such as manses or rectories.

15D Education. The opening of the Delaware College in Newark in 1834 was evidence of the new concern with higher education. This theme requires more intensive research. Examples of property types for this theme include rural schoolhouses, and the buildings for Delaware College and other small private academies.

16D Community Organizations. This theme requires more intensive

research. Examples of property types for this theme include granges.

17D Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include union halls and multi-family workers housing.

18D Major Families, Individuals, and Events. Important people in this period were the du Pont family, Joseph Bancroft, George W. Churchman (a prominent lumber merchant), the Talley family, and the Marshall family of the Marshall Iron Company. Examples of property types for this theme include factory owners' houses.

Urbanization and Early Suburbanization

1880 - 1940 (1980) +/-

Location patterns for resources related to agriculture, mining and quarrying, manufacturing, retailing and wholesaling, professional services, religion, transportation and communication, settlement patterns and demographic change, architecture, engineering, and decorative arts, education, community organizations, occupational organizations, and major families, individuals, and events remain broadly consistent with those of the 1830-1880 +/- period. The major changes in location patterns relate directly to settlement patterns and demographic change with parallel, albeit lesser level, effects on other themes. Resources related to early suburbanization are associated with the outer fringe, especially to the north and west, of Wilmington and with late developments in larger milling communities such as the DuPont powder works. Improved roads and mass transit coupled with a growing professional middle class contributed to the early development of suburban commuting.

Survival patterns for resources related to early suburbanization are currently excellent. Resources related to agriculture and manufacturing, however, are endangered by the same modern land use patterns and require the same levels of cultural resource evaluation as do property types from the 1830-1880 +/- period.

Economic Trends

1E Agriculture. The existing farmland was pushed further and further

away from Wilmington. Major crops continued to include dairy products and beef steer, with some wheat and corn in smaller amounts. Examples of property types for this theme include bank barns, truck and dairy farms, and rural estates.

2E Forestry. This theme requires more intensive research and the identification of property types.

3E Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4E Mining and Quarrying. This theme requires more intensive research. Examples of property types for this theme include granite quarries and iron mines.

5E Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6E Manufacturing. Events in this period focused on the relocation of the industrial communities into the City of Wilmington. This was made possible primarily by the development of other sources of power that did not require water from the creeks. This meant the mills could be moved into the city, closer to the rest of the business community. It also simplified the railroad system, which was no longer required to maintain so many stops all over the zone in order to pick up mill products. Examples of property types for this theme include powder and chemical factories and textile mills.

7E Retailing and Wholesaling. This theme requires more intensive research and the identification of property types.

8E Finance. This theme requires more intensive research and the identification of property types.

9E Professional Services. This theme requires more intensive research and the identification of property types.

10E Transportation and Communication. New paved roads and public transportation, such as the trolley lines from the center of Wilmington as far out as Yorklyn, allowed people to work in the city but still live in a non-urban environment. This theme requires more intensive research. Examples of property types for this theme include trolley lines, railroad tracks, paved roads, gas stations, and air strips.

Cultural Trends

11E Settlement Patterns and Demographic Change. This period saw several major changes in the landscape of the Piedmont Zone. The biggest was the movement of most of the industrial facilities into the city of Wilmington, away from the natural power sources of the creeks. Near the end of the period, the DuPont company would again build factories and research stations further out in the suburbs, but this process would not begin until the 1930s. The towns that had developed around the original mills disappeared almost overnight once the mills were gone. At the same time, however, there was an increasing amount of suburban expansion radiating out from Wilmington, first north into Claymont and Arden and then south and west towards Elsmere, Newport, and Stanton.

Very little detail is known about the demographics of this period as there has been little research interest in this area. However, we do know that during and following World War I there was a large influx of European immigrants into the Wilmington area, probably because there were plenty of jobs available in the mills.

Examples of property types for this theme include increased suburban development north and west of Wilmington, the creation of ethnically oriented neighborhoods within the city, markets, pastures, planned residential communities, bungalows, the disappearance of mill towns, and the shift of factories to Wilmington.

12E Architecture, Engineering, and Decorative Arts. Another change in the landscape occurred primarily in Christiana Hundred where many of the families who owned the highly profitable mills in the city began purchasing large tracts of land and building country estates. These houses were more properly termed mansions, containing huge rooms for formal entertaining as well as family living and, of course, plenty of servants' quarters. Many of these mansions were built by members of the du Pont family, whose powder mills of the previous century had expanded into the development of all sorts of chemicals. Examples of property types for this theme include mansions, servants' housing, and bungalows.

36E Government. This theme requires more intensive research.

Examples of property types for this theme include public buildings, fortifications associated with World War I, and political clubs.

14E Religion. This theme requires more intensive research. Examples of property types for this theme include new churches, particularly in ethnic neighborhoods.

15E Education. This theme requires more intensive research. Examples of property types for this theme include the "du Pont" schools.

16E Community Organizations. This theme requires more intensive research. Examples of property types for this theme include grange halls.

17E Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include union halls and fraternal halls.

18E Major Families, Individuals, and Events. Some of the influential people in this period included the du Pont family, Frank Stephens (founder of the town of Arden), and Howard Pyle (a local artist of national fame who ran an art school in the area about 1900). World War I boosted the industrial economy greatly, particularly for the DuPont Company, whose work in the development of new chemicals proved very valuable to the war effort. Examples of property types for this theme include estates and the houses built in "chateau country" for prominent businessmen and landowners.

2. Upper Peninsula Zone

The Upper Peninsula Zone covers the largest land area of all the zones, stretching from the southeastern border of the Piedmont Zone through New Castle, Pencader, Red Lion, St. Georges, Appoquinimink, Blackbird, Duck Creek, Little Creek, Kenton, East Dover, West Dover, North Murderkill, South Murderkill, and Milford hundreds to the Sussex County line. The soils in this zone range from medium-textured to moderately coarse, with some areas being well-drained and others very poorly drained. The subsoil consists of sandy loam or sandy clay loam. Land contours range from level through gently rolling or sloping to steep. Major topographical features for this zone include Garrisons Lake, Killen Pond, Lums Pond, and McCauley Pond. Originally, the entire area was full of waterways. Many of the large creeks and rivers that flowed into the Delaware River were navigable by small boats for a fair distance inland. In addition, numerous small streams drained into the larger creeks. Like those in the Piedmont Zone, these streams have been subject to heavy silting and deposition over the past three centuries and in most cases are no longer navigable except by canoe or rowboats. The major streams that remain are the Christina River, Duck Creek, Smyrna River, St. Jones Creek, Murderkill River, Little River, Leipsic River, Chesapeake and Delaware Canal, Appoquinimink River, and Blackbird Creek. The zone was also heavily wooded with a variety of trees: oak, hickory, poplar, walnut, ash. Indian corn grew wild in many areas, and the land was inhabited by a large range of animals. At the present time much of the zone is under cultivation for agriculture. Dover, the state's capital, is the only large town in the zone, but there are many smaller communities.

Exploration and Frontier Settlement

1630 - 1730 +/-

Location patterns for resources related to agriculture, forestry, trapping and hunting, fishing and oystering, professional services, settlement patterns and demographic change, transportation and communica-

tion, architecture, engineering and decorative arts, religion, occupational organizations, and major families, individuals, and events are nonnucleated in character with the exception of the earliest occupation of present day New Castle. In the earliest decades of the period, resources tended to be water-oriented (e.g., the Ashton Historic District and St. Jones Neck Historic District). By the eighteenth century, significant durable settlement was taking place in the Upper Peninsula Zone upcountry along overland transportation routes and in areas particularly suitable to agriculture.

Survival patterns for property types associated with the Upper Peninsula Zone for the 1630-1730 +/- period are higher than they are for any other zone in the same time frame. The greatest concentrations of architectural remains are in the rural areas around Port Penn, Leipsic/-Little Creek, and St. Jones Neck. Historic archaeological sites associated with several standing structures have been identified, but a comprehensive historical archaeological sites inventory for the area is lacking. Modern encroachments on the Upper Peninsula Zone landscape include developing suburbanization (especially around existing towns and along the coast), deep plowing associated with intensive agriculture, and the abandonment of arable land. Any property type representing this historic period should receive a high historic preservation priority.

Economic Trends

1A Agriculture. A shift toward stable and somewhat self-sufficient agriculture occurred with the advent of Penn's successful colonization program. After about 1680, agriculture quickly established a pattern of cereals and livestock as the primary income-producing activities on the farm. Wildly fluctuating prices in the trans-Atlantic tobacco market did not affect early settlement in this region. The soil proved to be very productive for farming and was greatly sought after by Maryland farmers who wanted additional land. Examples of property types for this theme include farm buildings of impermanent construction and tobacco houses.

2A Forestry. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumber yards.

3A Trapping and Hunting. The earliest economic structure of the area most likely centered on exploitation of natural resources (furs, timber products). Examples of property types for this theme include trading stations and contact Indian sites.

4A Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5A Fishing and Oystering. This theme requires more intensive research. Examples of property types for this theme include landings, boats, wharves, and boat wrecks.

6A Manufacturing. This theme requires more intensive research and the identification of property types.

7A Retailing and Wholesaling. This theme requires more intensive research and the identification of property types.

8A Finance. This theme requires more intensive research and the identification of property types.

9A Professional Services. This theme requires more intensive research. Examples of property types for this theme include surveyors' offices.

10A Transportation and Communication. This theme requires more intensive research. Examples of property types for this theme include roads, ships, wharves, landings, and early trails.

Cultural Trends

11A Settlement Patterns and Demographic Change. Three phases of settlement can be identified in this period: initial scattered multi-ethnic European occupation; intensive occupation resulting from William Penn's promotional efforts; the separation of the three lower colonies from Pennsylvania, thereby establishing a separate colony. There was very little settlement of the Upper Peninsula Zone until 1680. Most settlement until then had been concentrated primarily on the coastline, in the vicinity of New Castle and present-day Wilmington. Geographically, settlement patterns were nonnucleated in nature except for early fortified sites in the vicinity of present-day New Castle and unplanned line towns and riverside ports along established transportation routes. Many of the

early land grants were administered by Maryland courts and were later disputed, causing periods of great confusion over land ownership.

The first century of historic settlement in the Upper Peninsula Zone was characterized by multi-ethnic European occupation before about 1680. From 1680 through 1730 settlement encouraged by William Penn became overwhelmingly British. Where a mix of Swedes, Finns, Dutch, and English defined the earliest population, subsequent settlement was English and Welsh. The earlier ethnic subgroups were rapidly acculturated into the larger population. Examples of property types for this theme include nonnucleated settlement sites, contact Indian habitation sites, increased arable land, increased numbers of structures, small fields in three- to five-unit field patterns, fencing, and early Dutch and English settlements.

12A Architecture, Engineering, and Decorative Arts. Initial building technologies were impermanent (i.e., earthfast) in nature and reflected the rationalization of a variety of Old World practices. By 1700, substantial durable housing projects (such as the Ashton houses) were undertaken. Furthermore, and most significantly, the first durable houses reflect the appearance of building styles and technologies more closely associated with local developments than European antecedents. Farm buildings remained impermanent in construction. Examples of property types for this theme include impermanent and early durable housing.

13A Government. The settlement process for the Upper Peninsula Zone included the separation of Delaware from Pennsylvania in 1701 and the erosion of proprietary control. This theme requires more intensive research. Examples of property types for this theme include courthouses (particularly the original New Castle Courthouse) and early forts.

14A Religion. Religious diversity paralleled ethnic settlement patterns and early sects included Quakers, Anglicans, and Roman Catholics. Examples of property types for this theme include early Anglican churches and Quaker meetinghouses.

15A Education. This theme requires more intensive research and the identification of property types.

16A Community Organizations. This theme requires more intensive research and the identification of property types.

17A Occupational Organizations. This theme requires more intensive research and the identification of property types.

18A Major Families, Individuals, and Events. Key individuals include William Penn and his representatives, Lord Baltimore and the Duke of York. Examples of property types for this theme include borders associated with separation of the Lower Colonies from Pennsylvania and the houses of major landowners, royal proprietors, and their agents.

Intensified and Durable Occupation

1730 - 1770 +/-

Location patterns for the property types appearing in this period generally remain consistent with those of the preceding period. The key exception is the development of towns and villages related to trade, transportation, and light manufactures. Among the earliest nucleated communities are Noxontown, The Trap, Dover, Cantwell's Bridge, and Salisbury. Several of these, such as Noxontown and The Trap, exist as unexplored archaeological sites. Associated with the earliest nucleated communities are transportation and communication, retailing and wholesaling, professional services, architecture, engineering and decorative arts, settlement patterns and demographic change, and major families, individuals, and events.

Survival patterns for Upper Peninsula Zone, 1730-1770 +/- property types are high in certain areas and low in others. Brick dwellings, public buildings, and churches are most common, while log and wood dwellings are uncommon survivals. Earthfast residences have been identified and tested as archaeological sites. There are no known documented agricultural or work buildings with the exception of an excavated post-in-ground barn at the Walther Road site. Town and village plans survive with key masonry dwellings, but as with rural sites, there is little known about lesser domestic building of any sort. Developmental pressures are consistent with those identified for the 1630-1730 +/- period. Despite the relatively high survival rate for some property types, all inventoried structures should be given a high historic preservation priority despite possible integrity issues.

Economic Trends

1B Agriculture. During this period, initial large land holdings were increasingly subdivided into smaller owner-occupied and tenant farms. The large tracts of land that had been granted to Maryland and Virginia landowners began to be broken up into smaller parcels that were farmed by the actual owners or their tenants. These farmers were now clearing a greater proportion of their land for crop farming, leaving less in woodlot and pasture. Many farms were able to produce a surplus of crops for market sale (chiefly wheat and Indian corn). Some of this supplied areas such as the town of Dover whose population swelled considerably when the county government was in session; the remainder was shipped to the urban centers of Wilmington and Philadelphia. Examples of property types for this theme include barns and granaries.

2B Forestry. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumberyards.

3B Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4B Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5B Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6B Manufacturing. Rural industries such as mills and tanneries were established and flourished. Although this zone remained colonial in character, economic and material dependence on European support systems for basic survival needs diminished. Examples of property types for this theme include tanneries and grist mills.

7B Retailing and Wholesaling. Income derived from the export of wheat, flour, leather, and butter provided capital fueling a new consumerism. Glass, ceramics, textiles, and other foreign products were imported and sold through local merchants. Examples of property types for this theme include village and rural stores and market squares.

8B Finance. This theme requires more intensive research and the identification of property types.

9B Professional Services. This theme requires more intensive research. Examples of property types for this theme include doctors' and attorneys' offices.

10B Transportation and Communication. This theme requires more intensive research. Examples of property types for this theme include ships, toll houses, wharves, landings, and roads.

Cultural Trends

11B Settlement Patterns and Demographic Change. During this period, efforts toward settlement of the Upper Peninsula Zone greatly intensified. Old villages developed into towns, and new towns were carefully planned in areas that could be reached by the ships that served the Atlantic trade routes (Smyrna, Dover, Odessa, Port Penn).

This was a critical time in the demographic history of the area. As acculturation undermined ethnic diversity, a growing sense of an economically scaled social class system came into play. In the 1740s Peter Kalm remarked on the near total loss of Scandinavian culture in the lower Delaware Valley. Also in the 1740s stair-passage plan houses were first commissioned by individuals involved in defining new sets of market-oriented commercial relationships. An approximation of membership in a stratified class system based on wealth and occupation might be as follows:

Upper:	millowners, merchants, ministers, landholders (large tracts or multiple farms)
Middle:	artisans, farmers, shopkeepers
Lower:	tenant farmers
Even Lower:	laborers
Lowest:	slaves

The locales where this development was most keenly felt were around emerging towns: specifically in the vicinity of New Castle, Port Penn, Odessa, Smyrna, and Dover. These developments corresponded to the prosperity of the wheat trade, milling, and shipping along the navigable stretches of middle Delaware. Examples of property types for this theme include increased arable land, timber fencing, ditching, land reclamation, and development of new towns and growth of old ones.

12B Architecture, Engineering, and Decorative Arts. Increased capital

also fueled new building projects, accelerating the turnover to durable buildings and the first acceptance of Georgian (stair-passage) house plans. The number of buildings constructed per farmstead was slowly beginning to increase. In this period several significant public buildings were commissioned, including a number of churches and governmental structures. Examples of property types for this theme include durable housing and stair-passage plan houses.

13B Government. This theme requires more intensive research. Examples of property types for this theme include court houses and other public buildings.

14B Religion. This theme requires more intensive research. Examples of property types for this theme include new churches and meetinghouses.

15B Education. This theme requires more intensive research and the identification of property types.

16B Community Organizations. This theme requires more intensive research and the identification of property types.

17B Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include agricultural fairgrounds.

18B Major Families, Individuals, and Events. This theme requires more intensive research. Examples of property types for this theme include the dwellings of major landowners, merchants, and manufacturers.

Early Industrialization

1770 - 1830 +/-

Location patterns for resources related to agriculture, mining and quarrying, settlement patterns and demographic change, transportation and communication, architecture, engineering, and decorative arts, religion, education, occupational organizations, and major families, individuals, and events continue to be nonnucleated in nature. Resources related to urban growth and development, including the themes of government, retailing and wholesaling, transportation and communication, architecture, engineering, and decorative arts, settlement patterns and demographic change, occupational organizations, and major families, individuals, and events continued

to grow in the settings of existing road and water-oriented communities.

Survival patterns for property types in the Upper Peninsula Zone, 1770-1830 +/-, are particularly high for dwellings, public buildings, and churches. Few agricultural buildings, mills, offices, and other work buildings survive. Historical archaeological materials are incomplete, but comparatively good, for this period as a result of cultural environmental review procedures. Intensive suburbanization in the northern reaches of the Upper Peninsula Zone currently endanger all historic resources. Preservation priorities for the northern Upper Peninsula Zone include more extensive overall field documentation; for the southern part of the zone, they mandate a case by case assessment regarding integrity, rarity, and significance.

Economic Trends

1C Agriculture. The 1770-1830 +/- period witnessed the advent of agricultural reform and experimentation resulting in new systems of crop rotation and field patterns. Like farmers in the Piedmont Zone, landowners in this zone became more concerned with the productivity of their soil in this period. They formed the New Castle County Agricultural Society in 1819 and began to experiment with ways to increase their crop yields. This activity would eventually result in the highest level of wheat and dairy product yields in the state. Examples of property types for this theme include the complex five- to nine-unit field patterns developed by scientific farming and the New Castle Agricultural Society's fairground and markets.

2C Forestry. This theme requires more intensive research and the identification of property types.

3C Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4C Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5C Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6C Manufacturing. Rural industrial sites, such as mills and tan-

neries, became more local in their market orientation; village industries continued with a greater regional orientation. Examples of property types for this theme include rural merchant mills and tanneries.

7C Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include stores and wharves.

8C Finance. This theme requires more intensive research. Examples of property types for this theme include early banks.

9C Professional Services. This theme requires more intensive research. Examples of property types for this theme include funeral homes and the offices of doctors, lawyers, and surveyors.

10C Transportation and Communication. A more reliable network of roads was developed to connect Dover with the rest of the state. Many of the rivers that were used for the transportation of goods and people in the early part of the period began silting in very heavily by 1830. This led to greater dependence on the roads. The Chesapeake and Delaware Canal opened in 1829, linking the Delaware River and Bay with the Chesapeake Bay. Examples of property types for this theme include crossroads, landings, new roads, and centralized towns.

Cultural Trends

11C Settlement Patterns and Demographic Change. The major change in the zone in this period was the growth of the Dover area following the transfer of the state government from New Castle to Dover in 1777. This period witnessed a gradual population increase into the early 1800s. After 1810 though, the population in some neighborhoods began to decline. Some areas, such as St. Georges Hundred, showed a marked decrease in population from 1800 to 1830 before beginning a dramatic rise. The population of the region remained predominantly Anglo-American and Afro-American; families with other European origins were rapidly assimilated. Economic developments fueled the growing concern with rural and village class order. The 1770-1830 +/- period was also the time when a dominant new class of farmers emerged. These "new" farmers formulated the tenets of scientific agriculture, contractual labor relations, industrialization of the farm, and the

transformation of household organization. Typically, they owned more than one farm (sometimes more than twenty), urban or village property, and held investments in various speculative endeavors including transportation, banking, and manufacturing issues. Owners and tillers of small farms also contrived to work the land. The rate of tenancy increased; slavery waned. Examples of property types for this theme include town growth, fewer new buildings, and the abandonment of old buildings.

12C Architecture, Engineering and Decorative Arts. The Delaware Orphans Court records for this period indicate that Duck Creek and Dover hundreds had by far the highest proportion of brick housing of any area in the state. At one point, one in four houses was brick. This is also the period when service wings began to be incorporated into the main blocks of dwellings. The construction of new, more specialized horse barns, combination farm buildings, and other agricultural buildings reflect the growing industrialization of scientific farming. As an era of architectural renewal began at the close of the period, new houses were constructed and older buildings extensively remodeled in both the oldest settled and most productive agricultural areas. Examples of property types for this theme include "new" late Georgian and Federal rural and village housing.

13C Government. In 1777, the seat of government for the state was moved from New Castle to Dover, evincing an increased attention to localization of public affairs. In 1799 legislation was enacted to expand rights for free blacks. Examples of property types for this theme include town halls and the new State House erected in Dover between 1787 and 1792.

14C Religion. The developments in Methodism articulated the organization of the lower and middle classes through popular religion. Freeborn Garretson, a Methodist missionary, preached in Dover in 1778. The first Methodist camp meeting was held near Smyrna in 1805. Examples of property types for this theme include Methodist meetinghouses and campgrounds, Anglican churches, and Quaker meetinghouses.

15C Education. This theme requires more intensive research. Examples of property types for this theme include rural schools and academies.

16C Community Organizations. This theme requires more intensive research and the identification of property types.

17C Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include tenants' and workers' housing and New Castle County Agricultural Society meeting places.

18C Major Families, Individuals, and Events. Important figures in this period include John Dickinson, Richard Mansfield, S.H. Black, James Tilton, Joseph Barker, William Corbit, and David Wilson. Examples of property types for this theme include houses of principal landholders and agricultural reformers.

Industrialization and Early Urbanization

1830 - 1880 +/-

In this period, location patterns for resources related to agriculture began to reflect rural and proto-urban organization. While farms remained scattered evenly throughout the zone, support services such as milling, canning, and shipping were almost completely brought into the themes of transportation and communication and settlement patterns and demographic change. This developmental pattern extended to the centralization of resources related to transportation and communication, manufacturing, retailing and wholesaling, religion, community organizations, and occupational organizations. This was the period of the greatest surviving rural architectural activity with the largest relative number of extant representative dwellings, farm buildings, churches, public buildings, towns and villages, and work places.

Survival rates for the Upper Peninsula Zone in the 1830-1880 +/- period are among the best for historic resources throughout the state. Several National Register of Historic Places listings and nominations have recognized the integrity and significance of entire landscapes. Integrity, relative to significance, condition, developmental pressures, and rarity therefore should be reviewed more critically for all cultural resources.

Economic Trends

1D Agriculture. During this period, the Upper Peninsula Zone was divided into two agricultural regions: the northern part (New Castle, Red Lion, Pencader, St Georges, Appoquinimink, Duck Creek, and Little Creek

hundreds), known as the grain region, and the southern section (Dover, Murderkilm, and Milford hundreds), or mixed farming region. In the grain region the land is fairly level; the soil is well-drained and very productive. The farms were large compared to the rest of the state, cultivating an average of three times more acreage per farm than the other regions (about 150 acres). Primary crops were corn and wheat, produced in the highest volume per acre in the state. In addition, these farmers produced a great many dairy products, again more than anywhere else in the state. In essence, this region held the state's first modern market-profit farms.

The mixed farming region consisted mostly of self-sufficient family farms. The soil was wet and exhausted, forcing a much less intensive use of the land. Farm size in this region averaged about 50 acres, with much of it still in woodland. Wheat was grown only for family use, with corn being the only real market crop.

Some of the differences between these two regions may be attributed to the opening of the Chesapeake and Delaware Canal in 1829 and the gradual north-south extension of the railroad in the 1850s. These new methods of transporting produce to the major markets affected the grain region much earlier than the mixed farming region.

In the later part of the period the peach industry flourished, creating fortunes for many farmers in the northern section of the zone. The railroad allowed quick and easy transportation of this perishable crop to the large urban markets. By the 1870s economic decline in the rural markets set in due to major national shifts in grain production and the relocation of the milling industry to the upper midwest; agriculture was forced to become more diversified. Examples of property types for this theme include bank barns and combination corn houses and granaries.

2D Forestry. This theme requires more intensive research and the identification of property types.

3D Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4D Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5D Fishing and Oystering. This theme requires more intensive research

and the identification of property types.

6D Manufacturing. This theme requires more intensive research and the identification of property types.

7D Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include stores and packing sheds.

8D Finance. This theme requires more intensive research. Examples of property types for this theme include banks and brokers' offices.

9D Professional Services. This theme requires more intensive research. Examples of property types for this theme include doctors' and lawyers' offices and funeral parlors.

10D Transportation and Communication. In the 1850s a north-south rail link was extended from Wilmington down through Middletown, west Smyrna, and Dover. Not only did the railway provide easier, faster access to urban market, it also provided the economic spark for the creation of new towns like Clayton, Townsend, Felton, and Harrington. At the same time, traffic on the canal intensified, and the towns of Delaware City, St. Georges, and Summit grew rapidly. Newer ports at Port Penn, Odessa, Leipsic, and Little Creek diminished in economic significance and became feeders for a larger coastal and railroad trade network. By 1880, village development around new transportation points had increased. Examples of property types for this theme include railroad towns and train depots.

Cultural Trends

11D Settlement Patterns and Demographic Change. The middle decades of the nineteenth century witnessed the rise of agricultural reform, regional marketing, architectural renewal, and a capitalist rural economy. It is during this period that, architecturally and economically, the Upper Peninsula Zone was redefined as the Wilmington back country and assumed the first characteristics of a proto-suburban rural landscape. Steadily rising land values and returns on agricultural products reinforced the pattern of village growth and the reconfiguration of rural settlement through the 1860s. Although land values and farm income declined dramatically in the 1870s, the old settlement patterns remained intact.

The overall population in the region rose dramatically in this period. While growth reflected in new architecture was concentrated in developing towns, there were also significant increases in the rural population. From the very beginning of this time period, the population in the northern part of the zone began to increase at a very rapid rate and continued to do so through 1880. For the first half of this time period, the population in the southern section barely grew at all. After 1850, it did begin to increase more rapidly but never matched the rate of growth in the grain region.

The reorganization of rural society developing in the previous era solidified in the middle decades of the 1800s. The gentleman farmer/scientific agriculturalist evolved into the agrarian capitalist. In certain areas of the Upper Peninsula Zone, particularly the richer farm lands, the economic and social power of the landed few produced tenancy rates as high as 80 percent. With the opening of the Chesapeake and Delaware Canal in 1829 and the railroad's arrival in the 1850s, the economic pressure on landholders intensified along the transportation routes. The result was the intensive settlement of poor and even marginal farmlands in areas such as the Forest of Appoquinimink. At the same time, the unlanded population--both black and white--began to be concentrated at the edges of towns or along "waste" areas such as New Discovery. Examples of property types for this theme include town growth, increased numbers of buildings in towns, and railroad towns.

12D Architecture, Engineering, and Decorative Arts. It was during the later part of this period that many of the so-called "peach mansions" were constructed out of the fortunes made by many farmers from the peach market. Examples of property types for this theme include architectural renewal resulting in Italianate and eclectic popular styles.

13D Government. Continued self-governance produced a number of new or rebuilt village and rural structures. This theme requires more intensive research and the identification of property types.

14D Religion. In this period the rapid growth of Methodism resulted in the construction of many new churches. Examples of property types for this theme include Methodist meeting houses and camp meeting grounds.

15D Education. Rural education produced a number of new or rebuilt village and rural structures. This theme requires more intensive research. Examples of property types for this theme include rural schools.

16D Community Organizations. Fraternal movements produced a number of new or rebuilt village and rural structures. This theme requires more intensive research. Examples of property types for this theme include fraternal halls and neighborhood houses.

17D Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include grange halls and tenant housing.

18D Major Families, Individuals, and Events. Individuals and families key to this period include the Cleavers, the Polks, Samuel Townsend, the Bradys, William Wilson, Benjamin Corbit, and Anthony Higgins. Examples of property types for this theme include dwelling houses of major landholders, merchants, and railroad company owners and managers.

Urbanization and Early Suburbanization

1880 - 1940 +/-

The location patterns of resources from the 1880-1940 +/- period were affected by the themes of agriculture and settlement patterns and demographic change. The entire Upper Peninsula Zone back country contained an even distribution of farm complexes that by 1880 had fallen to their 1850 values. The greatest architectural growth occurred around the edges of most towns in the form of extended residential neighborhoods in an early suburban settlement pattern. Suburbs were most notable around Milford, Dover, Smyrna, Middletown, and south Wilmington (Urban Zone). Urban development in towns included resources related to transportation and communication, manufacturing, retailing and wholesaling, finance, and professional services.

Survival rates for property types in this time period are most notable in and around urban and suburban communities. The architectural character of the 1830-1880 +/- period continues to dominate most rural areas. Direct threats to cultural resources from this time period include more recent suburban developments, loss of agricultural lands in the northern portion

of the zone and around Dover, transportation improvements particularly in automobile and air traffic, and the economic decline of central business districts. Architectural integrity should be critically evaluated for all historic cultural resources from this period. This is the period for which there is the least amount of comprehensive cultural resource survey documentation.

Economic Trends

1E Agriculture. By the agricultural census of 1880, farm values had dropped to their 1850 levels. The advent of the automobile and accompanying road improvements intensified the markets for truck farming, enabling many farmers to carry their own goods to street markets in Wilmington and Philadelphia, bypassing commission merchants. Rural social movements, such as the Grange, grew to meet the needs of the rural populace. The Depression years of the 1890s and 1930s undermined the local landholding patterns of the area, resulting in the diversification of land ownership and the reallocation of property. Proprietors of twenty or more farms in the 1860s now found themselves reduced to five or six properties or completely dispossessed. During this period the agricultural economy continued its trend toward greater commercialization. Large canning companies purchased extensive tracts of land and contracted for the produce of owner-occupied farms. These large companies were able to bring in the most up-to-date machinery, effectively decreasing their costs in manpower and making it very difficult for the small independent farmers to compete. Many of these small farmers turned instead to producing fresh vegetables and fruit for local markets. Examples of property types for this theme include diversified farming orchards resulting in new multi-use buildings.

2E Forestry. This theme requires more intensive research and the identification of property types.

3E Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4E Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5E Fishing and Oystering. This theme requires more intensive research

and the identification of property types.

6E Manufacturing. Rural industry outside of towns served almost exclusively a local clientele; village industry was directed toward the export and marketing functions of agriculture. Canneries, grader sheds, and village storage and manufacturing facilities increased in numbers while rural facilities, often relying on native power, diminished.

7E Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include gasoline service stations and commercial blocks.

8E Finance. This theme requires more intensive research and the identification of property types.

9E Professional Services. This theme requires more intensive research. Examples of property types for this theme include the offices of doctors, lawyers, dentists, and insurance agents.

10E Transportation and Communication. This theme requires more intensive research. Examples of property types for this theme include highways, airplane hangars, the du Pont Highway, service stations, railroad tracks, and depots.

Cultural Trends

11E Settlement Patterns and Demographic Change. New industries provided employment: various Du Pont factories, the United States Air Force base in Dover, the oil refineries near Delaware City. The region was no longer so completely dependent upon farming for the economy, although the majority of the land was still used for farming.

After World War II the urban areas began to grow fairly quickly. Tract housing began to rise in response to the growing population. Although early suburbanization began around established towns, the large-scale pattern of suburban development was to be a product of the post-World War II era.

The structure of the population in this zone changed in several significant ways during this period. First, by 1880 the value of land had dropped back to 1850 levels with the result that many farm families were reoriented to a less profitable (but financially less risky), diversified

agricultural pattern stressing the cultivation of cereals, truck crops, and dairy products. Examples of property types for this theme include the removal of hedge rows, loss of agricultural structures, peripheral town growth, and early suburbs such as Elsmere.

12E Architecture, Engineering, and Decorative Arts. Examples of property types for this theme include bungalows and suburban tract housing.

13E Government. This theme requires more intensive research and the identification of property types.

14E Religion. This theme requires more intensive research. Examples of property types for this theme include churches and meetinghouses.

15E Education. This theme requires more intensive research. Examples of property types for this theme include the "du Pont schools" and suburban country day schools.

16E Community Organizations. This theme requires more intensive research and the identification of property types.

17E Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include union and grange halls.

18E Major Families, Individuals, and Events. The personalities and families that controlled the resources of land, market, and wealth in the 1830-1880 +/- period remained influential throughout the close of the nineteenth century. Specifically important family names included--in New Castle County--Clayton, Cochran, Cleaver, Vandegrift, Townsend, and Deak-yne, and--in Kent County--Emerson, Walker, Hayes, and Ridgely. The influence of the du Pont family, particularly in the funding of public works, such as schools and highway improvements, was an important factor here and throughout the state. This theme requires more intensive research and the identification of property types.

3. Lower Peninsula/Cypress Swamp Zone

Occupying the southern third of the state, this zone contains Broad-kiln, Indian River, Lewes and Rehoboth, Cedar Creek, Nanticoke, Northwest Fork, Seaford, Georgetown, Mispillion, Broad Creek, Gumborough, Little Creek, Dagsborough, and Baltimore hundreds. The natural environment of the Lower Peninsula/Cypress Swamp Zone shares many qualities with the Upper Peninsula Zone. The soil in the area ranged from moderately well to poorly drained with a subsoil of sandy clay or loam. Major flora include cypress, loblolly pine, tulip, magnolia, Atlantic white cedar, maple, ash, and oak. Early historical descriptions of the area typically label it as forest. The Nanticoke River, draining southwest into the Chesapeake Bay, is the main waterway in the zone. The other major body of water is the freshwater Cypress (or Burnt) Swamp. The entire zone was full of smaller streams and ponds.

Exploration and Frontier Settlement

1630 - 1730 +/-

The earliest historic cultural resources were located close to waterborne transportation routes, particularly those associated with the inland bays and the Nanticoke River. Location patterns for resources related to major families, individuals, and events, agriculture, forestry, trapping and hunting, retailing and wholesaling, settlement patterns and demographic change, transportation and communication, architecture, engineering, and decorative arts, religion, and education are represented by nonnucleated historic settlement patterns beginning along navigable water courses and penetrating inland. Settlement patterns and demographic change, transportation and communication, and retailing and wholesaling also appear in conjunction with developing overland trade routes, crossroads, and landings. Architectural remains are likely to reflect impermanent construction techniques and survive almost entirely in archaeological contexts. Historic cultural resources may also be identified with early contact sites and formative overland transportation

systems.

Survival rates for all property types representing the earliest historic period in the Lower Peninsula/Cypress Swamp Zone are extremely low for above-ground remains and unknown for below-ground archaeological features. Later historical developments (culminating in current developmental pressures) have left few standing architectural remains for the Lower Peninsula/Cypress Swamp Zone, 1630-1730 +/- . Coastal and Nanticoke-drainage related development pressures threaten early historic resources throughout the zone. Any resource identified as representing this historic period should be given a high historic preservation priority regardless of its overall material integrity and/or physical condition.

Economic Trends

1A Agriculture. In a 1728 letter, William Becket remarked that the business of the country was largely agriculture. This theme requires more intensive research. Examples of property types for this theme include tobacco sheds and impermanent farm buildings.

2A Forestry. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumber yards.

3A Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4A Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5A Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6A Manufacturing. This theme requires more intensive research and the identification of property types.

7A Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include rural and village stores.

8A Finance. This theme requires more intensive research and the identification of property types.

9A Professional Services. This theme requires more intensive research and the identification of property types.

10A Transportation and Communication. This theme requires more intensive research. Examples of property types for this theme include wharves, landings, early trails, ships, and roads.

Cultural Trends

11A Settlement Patterns and Demographic Change. The Lower Peninsula/Cypress Swamp Zone shares many of its developmental patterns with the Upper Peninsula Zone. In the earliest historical period, much of the area was contained within the lands disputed by William Penn and Lord Baltimore. Although proprietary patents and transactions with the local Indian population transferred some of these lands to European control in the seventeenth century, the zone remained largely unsettled by anyone other than trappers and "foresters" until the mid-eighteenth century.

Early settlement here may be described in terms of a back country rural economy oriented to the town of Lewes in the east and to the navigable westward drainages leading to the Chesapeake Bay. The interior was mostly unsettled during this period, but there is evidence that paths through the area connected the Chesapeake Bay drainages with the Atlantic coast and may have been used in the 1670s by the troops involved in the burning of Lewes. Settlement patterns suggested by documentary, archaeological, and architectural analysis follow the ephemeral non-nucleated tradition generally associated with the Chesapeake Bay country. Earth-fast construction techniques, tobacco cultivation, and widely dispersed settlement (three elements usually associated with the early historic occupation of the southern colonies) were common here.

Settlement in this zone began as large patent tracts averaging three hundred to four hundred acres and given names such as Prog's Rock, Strife, Spencer Hall, Mill Plantation, King's Adventure, and Long Neck. Areas of the Lower Peninsula/Cypress Swamp Zone where these sites may survive archaeologically are in eastern Cedar Creek and Indian River Hundreds. Current high density, low-level land development, however, represents a major threat to these resources.

William Becket's 1728 description of demographic patterns indicated that back country settlement patterns extended well into the zone, but that

the majority of Europeans in the area resided in and around the Coastal Zone community of present-day Lewes.

The first settlers in this country were for the greatest part originally English, some few however there are of Dutch families, but of late years great numbers of Irish, (who usually call themselves Scotch-Irish) have transported themselves from the north of Ireland... The taxable persons in Sussex are (at a mean computation) are one year with another about 420 of which 350 are heads of families. The number of Negroes, (freemen and slaves) in this country are 241.¹

Becket and other scattered commentaries make little or no reference to native American peoples known to be occupying the area. There is, in fact, no measurable amount of information on historic contact demographics and settlement issues here or elsewhere in Delaware.

Examples of property types for this theme include unoccupied virgin timberland swamp, increased arable land laid out in two- and three-unit field patterns, contact Indian sites, reservations, and little inland settlement.

12A Architecture, Engineering, and Decorative Arts. The Maston House near Seaford and Walnut Landing in Little Creek Hundred were the earliest standing houses in the zone and illustrated a preference for Chesapeake Bay building traditions. The majority of architecture appears to have been more impermanent in construction, framed on timber blocks or posts in the ground. As a consequence, archaeological surveys focused on the 1630-1730+/- period of the Lower Peninsula/Cypress Swamp Zone are a high priority to determine adequately the extent of the area's early historic cultural resource materials. Examples of property types for this theme include impermanent earthfast buildings and very early durable housing (such as the Maston House).

13A Government. This theme requires more intensive research and the identification of property types.

14A Religion. The Anglican Church established itself as the politically dominant religion, but Presbyterians, Quakers, and non-

¹ William Becket, minister of the Society for the Propagation of The Gospel, in a 1728 letter.

believers were plentiful. Examples of property types for this theme include early Anglican churches, Quaker meetinghouses, and Presbyterian meetinghouses.

15A Education. William Becket described the schools of the "Forrest of Sussex" in his 1728 letter:

...here is no public school in all the county, the general custom here being for what they call a neighborhood (which lies sometimes 4 or 5 miles distant one port from another) to hire a person for a certain term and come to each their children to read and write english for whose accomodation they meet together at a place agreed upon, cut down a number of trees, and build a log house in a few hours.²

Examples of property types for this theme include subscription schools.

16A Community Organizations. This theme requires more intensive research and the identification of property types.

17A Occupational Organizations. This theme requires more intensive research and the identification of property types.

18A Major Families, Individuals, and Events. Major events of consequence to the architectural and archaeological environment of the Lower Peninsula/Cypress Swamp Zone included proprietary and border disputes, insurrection in the 1670s, the intensification of settlement, the growth of the Scotch-Irish population, and the acquisition of large land patents by numerous individuals in residence. Important individuals in the early historic period represented Dutch, Scandinavian, Scotch-Irish, and English ethnic influences. Family names including Fisher, Wiltbank, Clowes, Ponder, Hart, Clark, and Bowman were found in the eastern range of the zone. Western and central Lower Peninsula/Cypress Swamp Zone surnames such as Burton, Stockley, Adams, Cannon, and Richards appeared in this period and remain common in the twentieth century as both family and place names. In all cases, the early family names represented individuals engaged in land speculation, plantation development, and coastal-oriented trade. Examples of property types for this theme include fortifications, archaeological sites resulting from the burning of Lewes in the 1670s, and

² Ibid.

houses of early landowners, royal proprietors, and their agents.

Intensified and Durable Occupation

1730 - 1770 +/-

Location patterns for resources related to agriculture, forestry, trapping and hunting, mining and quarrying, retailing and wholesaling, professional services, transportation and communication, architecture, engineering, and decorative arts, settlement patterns and demographic change, religion, education, occupational organizations, and major families, individuals, and events remain scattered and oriented to water and overland transportation routes in a nonnucleated fashion. Inland settlement increased dramatically in this time period as timber was cleared and arable lands developed. Some nucleated settlement patterns developed around emerging transportation and market centers such as Woodland Ferry, Dagsborough, and Laurel and are represented by resources related to transportation and communication, retailing and wholesaling, professional services, architecture, engineering and decorative arts, settlement patterns and demographic change, and major families, individuals, and events.

Survival rates for all property types related to the Lower Peninsula/Cypress Swamp Zone, 1730-1770 +/-, are low for above-ground historic cultural resources and largely unknown for below-ground materials. A few widely scattered dwellings survive--almost all of which have been moved at least once from their original site. The most common architectural remains are those related to agriculture, transportation and communication, and religion. The degree to which property types related to existing transportation routes survive is unknown. Other property types survive to an undetermined extent as archaeological resources. Property types representing this period remain highly significant despite possible integrity and condition issues.

Economic Trends

1B Agriculture. Arable land increased as the forests were cut, but the soil was very poor for continuous agricultural use. The organic

materials in the sandy soil enhanced cultivation (primarily corn) for a few years, but they were easily and rapidly exhausted. Husbandry was subsistence-oriented with most households maintaining a few hogs, geese, and a cow. Farming was also primarily at a subsistence level. Corn was grown as feed for livestock (mostly swine and a few cattle). Farmscapes were composed of two to four fields, that were extensively fenced, and a series of outfields. In several locales wetlands were developed for logging and ditching undertaken to drain swampy lands. Examples of property types for this theme include few farm buildings other than corn cribs.

2B Forestry. The primary economic structure of the zone was organized around forestry. Standing timber (including oak, cypress, poplar and pine) was cut, and buried cypress was mined for the production of shingles, plank, barrel staves, tanbark and ship stores. Forest products were shipped by water to Philadelphia, Wilmington, and New York. The forest economy produced several significant by-products such as improved transportation systems, shipbuilding concerns, local sawmills, and land reclamation efforts. An unfortunate side effect was the increased occurrence of devastating fires that ravaged wood land and ignited the underground peat layers. Examples of property types for this theme include sawmills and lumberyards.

3B Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4B Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5B Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6B Manufacturing. Besides agriculture and forestry, the local economy involved home manufactures such as textile production. This theme requires more intensive research. Examples of property types for this theme include kitchens and dwellings as the sites of home manufactures.

7B Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include rural and village stores.

8B Finance. This theme requires more intensive research and the identification of property types.

9B Professional Services. This theme requires more intensive research. Examples of property types for this theme include the offices of doctors, lawyers, and surveyors.

10B Transportation and Communication. This theme requires more intensive research. Examples of property types for this theme include wharves, landings, shipyards, roads, ships, and early trails.

Cultural Trends

11B Settlement Patterns and Demographic Change. The overall landscape of the Lower Peninsula/Cypress Swamp Zone through the middle decades of the eighteenth century remained little altered from its natural state. The large tracts of natural forest existed as an untapped economic resource, and the first efforts at extensive tillage had not yet been undertaken. There were, however, two significant exceptions to this pattern: the back country around the town of Lewes, and the Inland Bays and the upper reaches of the Nanticoke Drainage.

Settlement was significant enough in Lewes at the time of Bacon's Rebellion and related troubles (1676-1677) to warrant its near destruction by raiders from the Chesapeake Bay region. Still, Lewes survived and prospered as a port and as the seat of county government. By the 1730-1770 +/- period, the back country of present day Broadkilln, Baltimore, Dagsborough, Indian River, and Cedar Creek hundreds had been significantly settled. Few buildings associated with this early occupation have survived. Extant examples are the Fisher-Martin House and the Hopkins House. What does remain, however, are archaeological sites that require extensive inventory fieldwork. Landscape changes for this backcountry include the introduction of durable building techniques, cultivation of marsh meadows, development of roads and landings, fencing associated with subsistence-oriented agriculture, and the accelerated clearing of arable land.

Durable settlement in the west remained limited by the uncertain boundaries between Delaware and Maryland until the exact boundary was

finalized. One effect of legally recognized and undisputed borders was that landscape changes--such as new buildings, land reclamation, field patterns, and transportation routes--began to be developed in ways more consistent with statewide cultural geographical patterns.

Society in this zone developed and mutated along the lines of a southern plantation system. At the top of the social and economic ladder were the proprietors and major landholders, of which John Dagworthy was the most eminent. Lesser landholders composed the remainder of this upper stratum. Beneath landholders were farm managers and forest overseers, whose job was to monitor and regulate the production of the estates. In descending order under overseers were tenants, laborers, and slaves. The developing lumber industry also required a resident population of "foresters" (shingle cutters, draymen, and sawyers) and shippers (schooner and ram captains and crews as well as longshoremen). Also present in this community were Indians, who were being rapidly acculturated and who held and sold land to European settlers. Because of the unsettled Delaware-Maryland boundary disputes during this period, it is difficult to postulate broader demographic patterns because detailed reconstruction of materials from the Maryland, Pennsylvania and Delaware archival repositories would be required.

Examples of property types for this theme include new towns, town planning (Laurel, Dagsborough), increased arable land, timber fencing, disappearance of forests, and land reclamation by ditching.

12B Architecture, Engineering, and Decorative Arts. Scattered settlements produced buildings with a close affinity to Chesapeake Bay architectural traditions. Certainly the Maston House and Walnut Landing of the 1630-1730 +/- period served as local forerunners of sub-regional building traditions. Farm buildings, store houses, and other work-related structures continued to be built in a insubstantial manner. Examples of property types for this theme include more durable buildings and open plans.

13B Government. During this period the Delaware-Maryland boundary disputes were settled, and the Lower Peninsula/Cypress Swamp Zone came under the permanent jurisdiction of Delaware. This theme requires more

intensive research and the identification of property types.

14B Religion. Anglicanism was the strongest religious force during this period. One indication of this pattern is the development in the 1720s of new Anglican churches at locations inland from Lewes. Examples of property types for this theme include churches and Presbyterian meetinghouses.

15B Education. This theme requires more intensive research and the identification of property types.

16B Community Organizations. This theme requires more intensive research and the identification of property types.

17B Occupational Organizations. This theme requires more intensive research and the identification of property types.

18B Major Families, Individuals, and Events. In the 1750s John Dagworthy initiated his acquisition of forest lands, and by 1774 all his individual holdings were consolidated under "Dagworthy's Conquest," representing a total acreage of 20,393. Examples of property types for this theme include the transpeninsular line, increased numbers of sites and buildings, and the houses of large landowners, merchants, and shippers.

Early Industrialization

1770 - 1830 +/-

Location patterns for resources related to agriculture, forestry, mining and quarrying, retailing and wholesaling, professional services, religion, transportation and communication, architecture, engineering and decorative arts, settlement patterns and demographic change, government, education, and major families, individuals, and events remain nonnucleated in character. At the same time, historic property types may now be identified throughout the whole of the Lower Peninsula/Cypress Swamp Zone. However, the possible locations of resources related to themes such as agriculture, architecture, engineering, and decorative arts, transportation and communication, settlement patterns and demographic change, government, religion, education, and major families, individuals, and events extended in this period into previously unsettled tracts of the Cypress Swamp and the uplands away from navigable water courses. Resources related to

settlement patterns and demographic change increased significantly in this period, as towns and other nucleated settlements were laid out and began to grow.

Survival rates for property types related to the Lower Peninsula/Cypress Swamp Zone, 1770-1830 +/-, are high and well known compared to earlier historic periods. Most above-ground remains are located in rural settings or in the waterside neighborhoods of towns like Laurel. Although there was a dramatic rise in the total number of resources related to agriculture and its allied categories, these still stood in largely forested settings. Resources related to town growth in this period also survive with some frequency. Little developmental pressure away from the coastal reaches of the Lower Peninsula/Cypress Swamp Zone and the early character of durable building techniques require a more critical assessment of material integrity, physical condition, rarity, and significance than with earlier time periods.

Economic Trends

1C Agriculture. At the same time as the amount of improved or arable land increased through lumbering, the pursuit of agriculture remained economically marginal. Principal crops were corn and hogs, supplemented by limited cultivation of wheat, oats, tobacco, and cotton. Also in this period the lands between the major drainages out of the swamp were cleared and populated. The opening of new farm lands provided new, more extensive, fencing and field patterns. Marsh or salt meadows in the east were carefully ditched and maintained as were low lands in the interior. Some evidence of ditching and other 1770-1830 +/- land reclamation projects remain clearly visible in the late twentieth century. The most dramatic description of land reclamation for agricultural purposes is contained in George Alfred Townsend's *The Entailed Hat*. With the loss of natural timber stands, the value of wood for fencing and other purposes soared. Court records for this period contain legal language designed to protect the value of land by restricting lumbering and the over-cultivation of corn. Examples of property types for this theme include cornhouses.

2C Forestry. The forestry and home manufactures-based economy

flourished in this period. John Dagworthy died in the 1780s, but his landholdings remained intact under the stewardship of his son-in-law William Hill Wells (died 1829). While the basic economic structures instituted in the mid-eighteenth century remained intact and were refined, the forest came to be seen as a finite resource. Facing the spectre of diminishing timber lands, local proprietors began to diversify their holdings by acquiring other forest tracts in the Virginia-North Carolina Dismal Swamp and the New Jersey Pine Barrens. Examples of property types for this theme include sawmills and lumberyards.

3C Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4C Mining and Quarrying. This theme requires more intensive research. Examples of property types for this theme include iron ore mines and bog iron furnaces.

5C Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6C Manufacturing. Toward the end of the period, experimentation with local manufactures (iron furnaces and tanneries) began. Economic development in this period could be described as a combination of maintenance and expansion within existing circumstances. Examples of property types for this theme include tanneries, bloomeries, and bog iron mines.

7C Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include rural and village stores.

8C Finance. This theme requires more intensive research and the identification of property types.

9C Professional Services. This theme requires more intensive research. Examples of property types for this theme include offices of doctors and lawyers.

10C Transportation and Communication. This theme requires more intensive research. Examples of property types for this theme include wharves, landings, ships, roads, and bridges.

Cultural Trends

11C Settlement Patterns and Demographic Change. This period witnessed crucial transformations in the historical development of the Lower Peninsula/Cypress Swamp Zone. Land continued to be acquired in large tracts, and with the resolution of the Delaware/Maryland boundary disputes, landholders became secure in their tenure. In this period, landscape of natural environment and early historic settlement was transformed into a less forested and more dramatically cultural landscape. The key landscape change in the period centered around the removal of the county government from Lewes to Georgetown in the 1790s. Corresponding to the relocation of the county seat was the intensive deforestation of land throughout the interior reaches of the zone, the rapid development of sub-regional building traditions, and a dramatic improvement in overland transportation routes. Town growth swelled in relationship to rural development, and places like Bridgeville and Milton grew as centralized market places.

During this time period, the population of the Lower Peninsula/Cypress Swamp Zone represented between 39 and 43 percent of the total population of the state. In 1800, blacks (free and slave) represented 22 percent of the total population at both the state and zone level. By 1830, this figure had risen, in both cases, to 25 percent. The slave population was steadily decreasing in this period--by 1830, well over half the slave population had disappeared and what remained represented only 4 percent of the total population. In 1800, over half of the black population had been slaves; by 1830, more than 80 percent were free. These figures indicate that slavery did not provide a viable work force for the landowners of this zone. Despite slave holding, there was a chronic labor shortage, especially for workers in the forestry trades. By this time the local Indian population was largely acculturated, although period accounts describe the retention of some native customs and beliefs. At the time of the 1782 census, the median age of the total population tended to be younger than in the Piedmont and Upper Peninsula zones. Households with younger heads of household indicate a growing population and increased development of agricultural and home manufacture industries.

With the settlement of the disputed border line, the population of the

Lower Peninsula/Cypress Swamp Zone stabilized and then began to increase. Improved transportation networks enabled people to move through and around the area with ease. Although the number of owners of smaller tracts of land rose in this time period, the fundamental stratified organization of society remained essentially unchanged from the preceding period. Examples of property types for this theme include small houses with diminishing household populations, steady population growth resulting in more steadings, the decline of slave-holding resulting in free black and tenant communities, town growth, crossroad villages, early town planning, timber fencing, outfields, land reclamation by ditching, and intensive deforestation.

12C Architecture, Engineering, and Decorative Arts. With the exception of a very few buildings, the bulk of the earliest surviving architecture in this zone dates to this period. On the average, farmsteads were smaller in this zone than elsewhere in the state, with fewer buildings that were in worse repair than those in the northern zones. Buildings were constructed primarily of log or frame with only a very few instances of brick. Farmsteads were typically composed of a house, a service structure such as a smokehouse, and one or two small farm buildings such as a log cornhouse or barn and (though less likely) a stable, grooming, or combination building. These farmsteads were also characterized by a high percentage of houses with no farmbuildings. As land was more intensively tilled, a new generation of farmbuildings was erected--several of which survive in the Lower Peninsula/Cypress Swamp Zone. Small hay and feed barns (such as the Martin Barn near Cool Spring), corn houses of log and frame construction, brick and frame dairies, tenant or outfield housing, stables, granaries, and other work structures were widely built and continue to survive today, though much endangered and in rapidly decreasing numbers. Many of these early durable agricultural buildings were also replaced in the course of subsequent landscape and farm economy changes associated with the 1830-1880 +/- and 1880-1940 +/- periods. Less is known about the architectural organization of towns in the 1770-1830 +/- period.

Finally, with growing towns and an increasingly cultivated back county, the landscape of the zone was dotted with a variety of public and

religious structures. Churches and meeting houses representing a wide range of Protestant religions were built throughout the area only to be replaced in the ensuing time periods. Post offices, schools, and stores were widely built in the Lower Peninsula/Cypress Swamp Zone, as they were throughout the state. Examples of property types for this theme include impermanent and early durable architecture, few agricultural buildings, and open-plan dwellings.

13C Government. The 1791 relocation of the Sussex County courthouse to the center of the county and the laying out of Georgetown represented the opening of the Lower Peninsula/Cypress Swamp Zone backcountry. The geographic centralization of government in Sussex County effectively linked the communities oriented to the Delaware Bay in the east and those focused on the Chesapeake Bay in the west.

The historical development of the zone in this period took some interesting turns in the annals of Delaware law. Throughout the 1820s the most common crimes in Sussex County were theft, assault, and kidnapping. Crimes of violence were particularly noted in the Lower Peninsula/Cypress Swamp Zone. Patty Cannon, who kidnapped and sold slaves and free blacks, lived in Northwest Fork Hundred (present day Seaford Hundred) and was the subject of numerous later literary treatments. The general nature of personal violence in this rural area is worthy of concern, especially in light of its relationship to settlement pressure.

Examples of property types for this theme include the new courthouse in Georgetown, fortifications, and new post offices.

14C Religion. As in much of rural Delaware, this time period witnessed the introduction and rise of Methodism and the continued social organization around the Anglican/Episcopal churches in the area. Lay preachers and circuit riders, rural chapels and meeting houses, and annual camp meetings became common features in the zone. This theme requires more intensive research. Examples of this property type include new churches, camp meeting grounds, and meetinghouses.

15C Education. In the early part of the period, public schools were run mostly by subscription. By the end of the period, however, the area was divided into formal districts that still used many of the original

subscription schoolhouses. This theme requires more intensive research. Examples of property types for this theme include rural subscription schools.

16C Community Organizations. This theme requires more intensive research and the identification of property types.

17C Occupational Organizations. This theme requires more intensive research and the identification of property types.

18C Major Families, Individuals, and Events. Major individuals for this period include John Baynard, Judge Thomas White, William Hill Wells, Simon Kollock, Joseph Derrickson, and Reverend Tingley (Society for the Propagation of the Gospel). Important family names include Waples, Collins, Hickman, Houston, Aydelott, Haslett, Wiltbank, Jacobs, and Cannon. Major events in this period included the Revolutionary War, the War of 1812, and the Black Camp Revolt. Examples of property types for this theme include encampments, and the houses and offices of attorneys, county government officials, plantation owners, merchants, shippers, and timber proprietors.

Industrialization and Early Urbanization

1830 - 1880 +/-

Location patterns for resources related to agriculture, forestry, transportation and communication, architecture, engineering, and decorative arts, settlement patterns and demographic change, religion, education, and major families, individuals, and events remain nonnucleated on the landscape. The fringes of the Cypress Swamp continue to be cleared and farmed, but most building activity occurred on previously developed sites. Resources related to the advent of the railroad and related property types (from transportation and communication, trapping and hunting, professional services, manufacturing, finance, architecture, engineering, and decorative arts, settlement patterns and demographic change, community organizations, and major families, individuals, and events) occur in relation to existing towns along the current railroad line. The southward extension of the railroad sparked renewed growth in pre-existing towns as well as influencing the appearance of new functional building types in rural

settings.

Survival rates for aboveground cultural resources for the Lower Peninsula/Cypress Swamp Zone, 1830-1880 +/-, are significantly higher than for earlier periods. In fact, it is this generation of property types which continues to characterize the historic character of the Lower Peninsula/Cypress Swamp Zone landscape. Preservation priorities established relative to physical condition, material integrity, rarity, and areas of significance should be closely evaluated for historic cultural resources representing this time period.

Economic Trends

1D Agriculture. Agriculture also changed in the 1830-1880 +/- period. Agricultural reform began to infiltrate customary farming practices by the 1840s. A few correspondents to national journals wrote in describing the quality of soils, soil enrichment programs, and crop types. Compared to their contemporaries in the Piedmont and Upper Peninsula Zones though, they represented a small percentage of local practice and sentiment. While corn remained the principal crop, important cash crops developed around the cultivation of fruits and vegetables to be sold in urban markets like Wilmington and Philadelphia. Cash crops, like peaches or strawberries, required significant capital outlay to get underway, and the availability of a sizeable short-term labor force for harvest, processing, and packing.

In 1850 the southern part of the zone (Dagsborough, Broad Creek, and Baltimore hundreds) was still significantly unimproved. Over half of the total acreage in Broad Creek Hundred was listed as unimproved in the 1850 agricultural census. In Indian River and Broadkill hundreds and the upland reaches of the Nanticoke River drainage, considerably more land was cleared for agriculture. Economically, agriculture remained generally unprofitable. Examples of property types for this theme include cornhouses, orchards, grading sheds, stables, and barns.

2D Forestry. Timber reserves continued to be depleted, accelerated by the introduction of steam-powered milling machinery toward the close of the period. Steam-powered plants for the fabrication of barrels, baskets, and other wood products, coupled with access to rail markets, accelerated the

growth of towns such as Frankford, Laurel, and Selbyville. This theme requires more intensive research. Examples of property types for this theme include sawmills and lumber yards.

3D Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4D Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5D Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6D Manufacturing. Home manufactures involving lumbering declined, while other pursuits such as shell button making and weaving continued as the mainstays in a cash-and-barter local economy. This theme requires more intensive research. Examples of property types for this theme include small factories (basketmaking, furniture, and wagon makers) and pottery kilns.

7D Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include town and crossroad stores.

8D Finance. This theme requires more intensive research and the identification of property types.

9D Professional Services. This theme requires more intensive research. Examples of property types for this theme include offices of attorneys and surveyors.

10D Transportation and Communication. The extension of the railroad south down the spine of the Delaware Peninsula in the 1850s sparked new economic growth and architectural development in the latter half of the 1830-1880 +/- period. In 1868 the railroad in this zone was composed of two lines: a principal line (Delaware Railroad) running north to south from Harrington through Farmington, Greenwood, Bridgeville and Seaford; and a spur line (Junction and Breakwater Railroad) connecting Harrington, Houston Station, Milford, Lincoln, Georgetown, and Lewes. Rapid transit routes provided the initiative for new population centers built around marketing, shipping, and industry. Examples of property types for this theme include wharves, landings, roads, ships, bridges, and railroad tracks and stations.

Cultural Trends

11D Settlement Patterns and Demographic Change. The major landscape changes of the 1830-1880 +/- period concern the political subdivision of several Lower Peninsula/Cypress Swamp Zone hundreds and the intensification of activity focused on the conversion of mature forest to arable land. Both relate directly to a rapidly growing population and the opening of railroads through the area.

Far more real, and still visible today, were the landscape changes associated with the railroads built in the mid-1800s, agricultural intensification, and post-Civil War architectural renewals. Agricultural change here occurred first as the reclamation of waste and forest lands. At the time of the 1850 census, a large portion of the zone was still unimproved. By the 1880s this trend was reversed, and agricultural intensification which began as reclamation moved on to soil improvement. Drainage of the swamps made the land useful for agriculture on a short-term basis. Virtually everyone farmed on a subsistence level, producing wheat for family use and possessing probably one cow for the family dairy needs. In addition, they grew corn to feed the cattle and swine that were now the major source of income. Meat and hides were sold as part of the home manufacturing system that had developed in the area. These occupations were seasonal, allowing the farmers to spend part of the year working in the dwindling lumber and carpentry industry. Finally, towns and town planning emerged as a major landscape theme. The geometric plan of Georgetown in the 1790s found equivalence in the grid plans of new houses like Lincoln (Cedar Creek Hundred) and growing older villages such as Milton.

Population growth in the Lower Peninsula/Cypress Swamp Zone was constant throughout this period. Despite this growth, however, the population in the zone dropped from representing over 40 percent of the state's population in 1830 to only 30 percent in 1880. This change was due largely to the growth of Wilmington, which held fully one-third of the state's population by 1880. The black population in the zone remained generally constant overall, but the slave population decreased slightly,

representing only 3 percent of the total population in 1860.

Sustained demographic increases can be traced to the reclamation of new agricultural lands, declining mortality rates, and improved transportation networks. The deforestation of the Cypress Swamp opened new farmlands and created a demand for a more extensive farm labor pool. Rapid transportation systems provided the means to move perishable truck crops (such as strawberries or peaches) to urban markets. With the cutting back of the Cypress Swamp and improved drainage of open lands through ditching, seasonally related fevers and agues were reduced. Also, improved household conditions in the areas of sanitation, potable water, and diet contributed to greater life expectancy.

Improved transportation networks dramatically influenced demographic growth in the 1830-1880 +/- period. The shipyards at Bethel, and the maritime landings and railroad stops at Seaford, Laurel, and Delmar moved people and goods through the zone as well as providing employment with directly and indirectly related industries.

The growth of seasonal and migrant labor were significant changes and require more extensive research. Tied to labor demographics was the effect of emancipation on black labor and family life in this zone.

Examples of property types for this theme include migrant labor camps, town growth, town planning and new towns, railroad lines, conversion of forest to arable land, timber fencing, and ditching.

13D Architecture, Engineering, and Decorative Arts. Housing also improved dramatically in the 1830-1880 +/- period. By 1860 the open-plan dwellings, which represented the dominant house type in the preceeding periods, were being enlarged or replaced by a two-story, hall-parlor or center-passage, single pile dwelling with a complement of barns, corn cribs, stables, and sheds. In the decades following the Civil War, service functions that were formerly housed in various outbuildings were connected to the house. Crossroads stores, local mills, and other industrial and commercial elements in a non-nucleated landscape were also significant to the back country economic and social environment. More specifically, public places important to the zone, such as schools and post offices, were local reflections of other statewide and national historic landscape

patterns. Examples of property types for this theme include hall-parlor or stair-passage plan houses, incorporation of service wings, increased numbers of farm buildings and Federal and late Georgian-style building.

13D Government. With the removal of the county government from Lewes to Georgetown in 1791, settlement activity in central Sussex County accelerated. One result of this demographic pressure was the creation of several new hundreds. Gumborough Hundred was created in 1873. Georgetown Hundred was partitioned from Broadkill in 1833, reunited in 1835, and separated again in 1861. Seaford Hundred was removed from Northwest Fork Hundred in 1869, and Milford Hundred from Mispillion Hundred in 1830. Although these divisions were mandated by legislative enactments, they appear to have had no effect on landscape and governance. Examples of property types for this theme include new public buildings, fortifications, and prisoner-of-war camps.

14D Religion. During this period, the rise of Methodism continued, with many new churches and camp meetings being constructed. Earlier churches and meetinghouses were replaced with larger, more fashionable, and durable structures. This theme requires more intensive research. Examples of property types for this theme include Methodist meetinghouses and new churches.

15D Education. Many of the Methodist churches had held subscription schools prior to 1829. After that, the state was divided into districts with a public school serving each one. In many cases the new schools continued to use the old subscription buildings. This theme requires more intensive research. Examples of property types for this theme include public school district schoolhouses.

16D Community Organizations. This theme requires more intensive research and the identification of property types.

17D Occupational Organizations. This theme requires more intensive research and the identification of property types. Agriculture declined slightly during this period, and greater numbers of people were to be found working in such industries as mills, canneries, tanneries, and ship yards.

18D Major Families, Individuals, and Events. There are several key figures related to historical and architectural developments in the Lower

Peninsula/Cypress Swamp Zone. Governor Ross, whose rural estate was located outside of Seaford, was a figure of statewide political importance and a strong voice for nineteenth century agricultural reform. The Ralph family (Charles Thomas, William, and James English) developed a distinctive architectural furniture style in the period. Other important families in this period included the Clarks, the Wilsons, the Pettijohns, and the Ponders. Examples of property types for this theme include the houses and offices of factory owners, county government officials, railroad and "truck" farm agriculturists, timber proprietors, and millers, and Civil War encampments.

Urbanization and Early Suburbanization

1880 - 1940 +/-

The location of property types for this period follows the generally nonnucleated pattern described for earlier Lower Peninsula/Cypress Swamp Zone time periods. Resources allied with aspects of agriculture remain rural in their appearance as do the majority of resources related to settlement patterns and demographic change, religion, education, and major families, individuals, and events. The improvement in overland transportation networks and the advent of the automobile focused the development of new roadside communities relative to settlement patterns and demographic change, especially as characterized by transportation and communication, retailing and wholesaling, manufacturing, finance, professional services, government, religion, education, community organizations, and occupational organizations.

Survival rates of property types for this time period remain the highest for the Lower Peninsula/Cypress Swamp Zone, although it should be noted that the shifts away from first the railroad and later truck farming has threatened whole functional categories of buildings, like sweet potato houses, grader sheds, and railroad related structures. Architectural integrity should be a consistently high measure of significance for property types associated with the Lower Peninsula/Cypress Swamp Zone, 1880-1940 +/-, but it should not restrict the preservation of certain categories of structures that as a group are at once common and uniformly

threatened by changing markets and developmental pressure.

Economic Trends

1E Agriculture. Agriculture and related businesses formed the core of the area's economic development. Improved highways and overland transportation routes sparked the cultivation of perishable seasonal crops such as peppers, melons, tomatoes, peaches, berries, and other fruits and vegetables. In addition to being exported, these "new" crops were often processed and canned locally. The broiler industry also grew dramatically in the 1880 to 1940 period. Corn cultivation for chicken feed, broiler houses, and packing plants are aspects of this industry. Another agricultural pursuit that left distinctive buildings was sweet potato farming, which peaked in 1919. The Great Depression crippled the local economy, and it was not until new agricultural practices, power equipment, and the early broiler industry that farming began to recover. The process of deforestation led to intensive agricultural use of the sandy soils and accelerated wind and runoff erosion. Still, the land remained largely agricultural with farm economy based on cereals, chickens, and truck produce. Examples of property types for this theme include broiler houses and sweet potato houses.

2E Forestry. As the amount of arable land was increased, the old forests remarked upon by earlier observers were greatly reduced in size. By the early twentieth century the economic significance of lumbering had declined along with revenues from processed wood materials such as shingles, stairs, and ship stores. The Cypress Forest, heavily lumbered throughout the nineteenth century, is now a natural preserve and less than a tenth of its approximate size in 1800. Examples of property types for this theme include sawmills and lumberyards.

3E Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4E Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5E Fishing and Oystering. This theme requires more intensive research and the identification of property types.

6E Manufacturing. The home manufacture of holly and boxwood Christmas ornaments seems to have left little above-ground or archaeological evidence. The outskirts of towns became the setting for new canning, basket making, button making, and other plants. This theme requires more intensive research. Examples of manufacturing include canneries, packing plants, and lumber yards.

7E Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include town and rural crossroad stores.

8E Finance. This theme requires more intensive research and the identification of property types.

9E Professional Services. This theme requires more intensive research. Examples of property types for this theme include offices for doctors, lawyers, and surveyors, as well as funeral homes.

10E Transportation and Communication. Public spaces in both rural and town settings were completely changed by the automobile. Highway improvement meant new roads, resurfacing of old roads, and changing alignments. This theme requires more intensive research. Examples of property types for this theme include roads, railroads, bridges, depots, and airports.

Cultural Trends

11E Settlement Patterns and Demographic Change. Landscape and market changes altered the architectural character of the land in this period. Broiler houses for chickens dominated farmstead layouts and are mapped on revised United States Geological Survey maps. Potato houses, corn houses, and barns became obsolete and stand more as endangered relics than viable work places. Housing improved along the lines developing in the 1830-1880 +/- period: the two-story three- or five-bay farmhouse with a kitchen wing became increasingly popular and all but eclipsed earlier house types. Villages and towns grew as they shifted orientation from water to railroad to highway transport. The overland transport system brought on by the automobile led to the accelerated growth of "urban" centers with new commercial and residential buildings including false front stores and

pattern book bungalows. As some towns grew throughout this period, others lost population and buildings. Cannon's Ferry and Bethel, both substantial enclaves in the late 1800s, decreased in size and importance through the twentieth century.

During this period, most towns and villages reached their present size and general appearance. Towns expanded rapidly during this period as evidenced in a rich architectural tradition. Established town centers and work areas were transformed with new commercial buildings including banks, stores, offices, and factories. As the towns' populations grew so did their physical size, resulting in new neighborhoods being laid out around old ones. The resulting landscape was more broadly and intimately connected than in previous decades. New buildings filled new needs here as in other zones in the state.

Of particular interest is the fact that during the 1880s George Alfred Townsend published his novel, *The Entailed Hat*, detailing life in and around the Lower Peninsula/Cypress Swamp Zone of a generation before.

Little is currently known about broad demographic patterns in the Lower Peninsula/Cypress Swamp Zone. Other evidence, specifically economic development and landscape change, offers limited insight into population changes. (These patterns should be checked against modern census totals and selected taxlists, voter registration, and vital statistics maintained in the twentieth century.) Rural population increased significantly through the 1920s as a result of increases in arable land and the maintenance of labor intensive agriculture --truck farming and animal power. The Great Depression and the widespread use of power machinery displaced at least some of the rural population. At the same time, the era of the automobile enhanced the growth of urban and crossroad centers, with the effect of relocating elements of the rural population within the overall zone but in a different landscape context. It is in this period that more rigorously racially segregated neighborhoods began to appear in town settings. The overall demographic pattern in this period may well have been one of relocation, where population concentrations shifted geographically within the zone.

Examples of property types for this theme include land reclamation,

establishment of forest preserves, new towns, growth of old towns, large fields mechanically cultivated, natural forestation restricted to preserves or along watercourses and fields, and an intricate network of paved roads collapsing the distances between back country and town centers with great efficiency.

12E Architecture, Engineering, and Decorative Arts. Older dwellings, churches, and farm buildings that had begun to be replaced in the middle decades were now renewed at an increased pace. The family farm was the basic unit of the landscape in this period. Owner-occupied or tenanted, the farmsteads of 1880-1940 +/- were architecturally transformed from the design and appearance of earlier periods. First, the dominant house type became the two-story, three- or five-bay, single-pile dwelling with a kitchen wing. Outbuildings generally included a smokehouse, milkhouse, garage, and detached summer kitchen. Laid out in a partial court behind the house were groupings of two to ten buildings (small combination barns and granaries, dairy barns, corn cribs, granaries, potato houses, grader sheds, cary and tractor sheds, and/or broiler houses). Houses representing a variety of stylish trends--Queen Anne, bungalow, four-square, and late Victorian eclecticism--line the avenues and sidestreets of towns like Bridgeville, Milford, Seaford, and Greenwood. In the 1920s and 1930s, Henry Chandlee Forman and George Fletcher Bennett began to collect architectural information in the general area. Examples of property types for this theme include a shift to two-story, three- or five-bay dwellings, early bungalows, and larger numbers of farm buildings.

13E Government. This theme requires more intensive research. Examples of property types for this theme include rebuilt public service buildings and World War I fortifications and camps.

14E Religion. This theme requires more intensive research. Examples of property types for this theme include new and rebuilt churches.

15E Education. This theme requires more extensive research. Rural schools were also rebuilt and roughly standardized. This theme requires more intensive research. Examples of property types for this theme include rebuilt public schools.

16E Community Organizations. This theme requires more intensive

research and the identification of property types.

17E Occupational Organizations. This theme requires more intensive research. Examples of property types for this theme include agricultural halls, and small industries.

18E Major Families, Individuals, and Events. If individuals must be singled out for the Lower Peninsula/Cypress Swamp Zone, the contributions of George Alfred Townsend to the birth of the broiler industry must be recognized. The advent of the automobile, the decline of large scale lumber industries (largely through deforestation), and extensive land reclamation transformed the forest economy of earlier periods to one of truck farming and light manufactures. Other major events included the initial construction of present-day Route 13, the peak and gradual decline of maritime related industries, and the extension of public/government services into the region. Examples of property types for this theme include the houses of factory owners and large landowners.

4. Coastal Zone

The Coastal Zone encompasses the coastline of Delaware and extends out to the three-mile limit or the state line on the water side; on the inland side, it reaches to the head of navigation. Because the head of navigation changes as erosion and silting alter the rivers and streams, the inland boundary of the Coastal Zone is variable from one period to another. The zone boundary is not a line running parallel to the coastline, but also includes the land in the immediate vicinity of a river or stream up to the head of navigation. The zone is the area in which water-related activities take place; in certain time periods that includes the navigable streams as far inland as the ports of Odessa, Smyrna, and Bethel. Primarily, however, the zone consists of the eastern boundary of Delaware, all of which is shoreline for river, bay, or ocean. From Brandywine Hundred south to about St. Georges Hundred is considered the shore of the Delaware River; from St. Georges to Cape Henlopen, the Delaware Bay; the remaining coastline, the Atlantic Ocean. The zone also includes such coastal water-oriented towns as Lewes, Leipsic, Port Penn, and Delaware City. The bay and ocean sections of the zone have been subject to heavy erosion from wave activity over the centuries. Anywhere from one to nine feet of beach has disappeared in a year. Consequently, the coastline continually changes, particularly during the hurricane season.

The northernmost part of the zone faces the fresh-water Delaware river fed by small streams from the Piedmont and Upper Peninsula Zones. The soil of the river basin ranges from moderately well-drained and medium textured to tidal marsh land. The marshes contain a variety of vegetation (arrow-
arum, spatterdock, water-willow, smartweed, red oak, white oak) and wildlife (turtles, many kinds of fish, muskrat, wood ducks, great blue herons, ospreys, turkey vultures, and bald eagles). Pea Patch Island, the site of Fort Delaware, was built up by the collection of river silt deposits.

The middle portion of the zone is associated with the Delaware Bay. The northern section consists of tidal wetlands with marsh mud banks

containing saltmarsh cordgrass and salt hay. These wetlands also provide a habitat for a wide variety of wildlife: muskrat, rabbit, waterfowl, shorebirds, longlegged waders. Vegetation in the marshes includes soapwort gentian, sweet gum, red maple, highbush blueberry, red cedar, and wild black cherry. Further south the coast consists of narrow sandy beaches with salt marshes behind them. This area is particularly vulnerable to change during storms because of the low elevation of the barrier dunes. Closer to the mouth of the bay the beaches become very wide and sandy with multiple rows of sand dunes protecting the marsh areas.

The southernmost section of the zone faces directly onto the Atlantic Ocean. Most of this section is a barrier beach/inland bay system. The beach on the ocean side is sandy, wide, and fairly steep. The dunes behind it are well-vegetated and approximately seventeen feet above sea level. On the inland side, the bay shoreline is made up of back barrier salt marshes containing sea rocket, seaside goldenrod, poison ivy, wild black cherry, holly honeysuckle, Virginia creeper, bayberry, winged sumac, red cedar, beach plum and much more. Two major topographical features of this part of the zone are Cape Henlopen and Rehoboth Bay.

Exploration and Frontier Settlement

1630 1730 +/-

Location patterns for resources in the Coastal Zone are restricted to the tidal reaches and immediate uplands adjacent to the coast. Property types related to settlement patterns and demographic change, transportation and communication, retailing and wholesaling, and architecture, engineering, and decorative arts are generally nucleated in the earliest settlement period and then becoming dispersed throughout the latter half of the seventeenth century. Some resources related to transportation and communication, fishing and oystering, and retailing and wholesaling--such as shipwrecks, navigational aids, and wharves and small craft--are entirely marine.

Survival patterns for property types in the Coastal Zone, 1630-1730 +/-, are almost entirely archaeological. So little material information has been documented for this period that all sites identified with early

colonial occupation in the Coastal Zone should be given the highest research and preservation priorities. This is particularly crucial due to the absolute lack of protective legislation regarding the salvage of marine cultural resources from any historic time period.

Economic Trends

1A Agriculture. Farmers were most likely engaged in subsistence watering pursuits. This theme requires more intensive research and the identification of property types.

2A Forestry. This theme requires more intensive research and the identification of property types.

3A Trapping and Hunting. This theme requires more intensive research and the identification of property types.

4A Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5A Fishing and Oystering. Scattered probate records for Coastal Zone estates contain mention of shallops and other small craft along with listings of netting, salt fish, oars, sails, traps, and other water-related materials. This theme requires more intensive research. Examples of property types for this theme include boats, ships, docks, and sheds.

6A Manufacturing. This theme requires more intensive research and the identification of property types.

7A Retailing and Wholesaling. The general pattern seems to be one where merchants, millers, and others used the water courses for the transportation and marketing of import goods (such as ceramics and textiles) and export materials (grain, leather, and lumber). This theme requires more intensive research. Examples of property types for this theme include trading stations and contact sites.

8A Finance. This theme requires more intensive research and the identification of property types.

9A Professional Services. This theme requires more intensive research. Examples of property types for this theme include surveyors' offices and houses.

10A Transportation and Communication. Delaware's earliest historic

settlement patterns are documented as water-oriented, and accordingly, coastal waters and tributaries provided the primary access in and out of most communities and steadings. This theme requires more intensive research. Examples of property types for this theme include navigational aids, landings, and harbors.

Cultural Trends

11A Settlement Patterns and Demographic Change. Population trends and occupational patterns relative to the Coastal Zone are largely unknown for the early historic period. Delaware's coastline from the Atlantic Ocean to the Delaware River was the scene of the colony's earliest historical settlements. In the sixteenth century, European explorers reputedly had undertaken reconnaissance along the shores of ocean, bay, and river. By the second quarter of the seventeenth century, settlement had begun to take place in and around fortified outposts at Cape Henlopen, New Castle, and the mouth of the Christina River. These earliest settlements included communities sponsored by European trading companies representing a variety of national interests, including those of Britain, Sweden, and the Netherlands. In the second and third quarters of the seventeenth century, settlement began to extend from the original clustered communities and into the surrounding countryside. Competing European national interests afforded little security for early landholders, with the result that little wealth was invested in durable architectural expression. Finalized colonial boundaries for Delaware were not drawn until the end of the eighteenth century. In 1730, streets for the port of Willingtown (Wilmington) were laid out. The early historic Coastal Zone population requires significant further research.

Examples of property types for this theme include fortifications, contact Indian sites, early habitation sites, and early planned towns.

12A Architecture, Engineering and Decorative Arts. This theme requires more intensive research. Examples of property types for this theme include early impermanent housing and support buildings.

13A Government. In 1682, William Penn assumed the disputed proprietorship of Delaware (the three lower counties of Pennsylvania). Lord

Baltimore continued to press claims for the southern reaches of the territory. In 1704, the three lower counties (New Castle, Kent, and Sussex) separated from Pennsylvania in a move away from direct European control and toward self-governance. This theme requires more intensive research. Examples of property types for this theme include early fort sites.

14A Religion. This theme requires more intensive research and the identification of property types.

15A Education. This theme requires more intensive research and the identification of property types.

16A Community Organizations. This theme requires more intensive research and the identification of property types.

17A Occupational Organizations. This theme requires more intensive research and the identification of property types.

18A Major Families, Individuals, and Events. The major historical patterns in the 1630-1730 period relate to the age of exploration, initial European occupation, and the achievement of durable settlements. Key dates are:

- 1609 Henry Hudson "discovers" Delaware Bay and River for the Dutch East India Company.
- 1631 Dutch establish first settlement at present-day Lewes.
- 1638 Swedes establish settlement near what would become the eighteenth-century city of Wilmington.
- 1651 Dutch establish Fort Casimir at present-day New Castle.
- 1655 Swedes surrender settlement claims to Dutch.
- 1659 Lord Baltimore's agents present English claims to territories along Delaware River.
- 1664 Duke of York's representatives seize the Delaware territory.

Examples of property types for this theme include landfalls, shipwrecks, coastal fortifications, and the dwellings of shipbuilders and mariners.

Intensified and Durable Occupation

1730 - 1770 +/-

Location patterns for property types related to the 1730-1770 +/- period follow those of the 1630-1730 +/- period. Important changes include the development of increased numbers of localized landing sites all along the Coastal Zone, more durable navigational aids, and the growth of a mixed agricultural/maritime economy. Early colonial forts were abandoned in this time period, but coastal fortifications were developed at other sites. Resources related to settlement patterns and demographic change and transportation and communication are connected to ports, including Lewes, Fast Landing, New Castle, Flemings Landing, and Port Penn.

Survival rates for property types associated with the Coastal Zone, 1730-1770 +/-, are mixed. In the vicinity of Wilmington and the industrialized reaches of the Delaware River portion of the zone, both architectural and archaeological historic resources are in constant jeopardy. The same pattern holds for the ocean and inland bay areas of the Coastal Zone in the south. Areas of least developmental pressure range from present day Port Penn south to Prime Hook. The most extensive resources are archaeological in nature, and priority should be given to their identification and preservation.

Economic Trends

1B Agriculture. During this time period, increasing numbers of coastal farmers undertook land reclamation projects in order to make use of tidal marsh as meadow and grazing land. Nonnucleated coastal settlements assumed a uniformly agrarian character. This theme requires more intensive research and the identification of property types.

2B Forestry. This theme requires more intensive research and the identification of property types.

3B Trapping and Hunting. This theme requires more intensive research. Examples of property types for this theme include trading stations, wharves, landings, and other related facilities.

4B Mining and Quarrying. This theme requires more intensive research

and the identification of property types.

5B Fishing and Oystering. This period witnessed the first emergence of water-oriented fishing and trapping communities. Off-shore whaling enterprises were given up during this time. This theme requires more intensive research. Examples of property types for this theme include wharves, landings, docks, and ships.

6B Manufacturing. Shipbuilding and related industries began to emerge as economic factors in this period. This theme requires more intensive research. Examples of property types for this theme include shipyards and related facilities.

7B Retailing and Wholesaling. The eighteenth-century colonial period witnessed the growth and improvement of landings and anchorages all along Delaware's coastline in response to the growth of inter- and intra-coastal commerce, including trans-Atlantic trade networks. This theme requires more intensive research. Examples of property types for this theme include shipchandlers' shops and village stores.

8B Finance. This theme requires more intensive research and the identification of property types.

9B Professional Services. This theme requires more intensive research. Examples of property types for this theme include the offices of surveyors, doctors, and attorneys.

10B Transportation and Communication. As Delaware's backcountry and uplands were settled, the development of coastal transportation networks was of increasing importance. Prior to the completion of a railway line to Salisbury, Maryland, in the mid-1800s, the Coastal Zone landings and ports provided Delaware with transportation outlets to urban markets on the Atlantic coast. The coming of rapid ground transportation via rail, automobile, and truck later relegated the use of Delaware's landings to true backwaters. Still, many of the landings and ports survive in name on maps and as untested archaeological sites. Others are now incorporated into town plans that expanded in the 1830-1880 +/- period.

Significant landings in New Castle County included Coxes Neck, Reedy Island, Augustine Beach, Thomas Landing, Stave Landing, Liston Point, Blackbird Landing, Flemings Landing, Eagles Nest Landing, and Brick Store

Landing. Towns (such as Odessa, Noxontown, Port Penn, Newport, and Delaware City) grew in later years from earlier landing sites. In Kent County towns and landings with early antecedents include Smyrna, Barkers Landing, Leipsic, Little Creek, Shorts Landing, Whites Landing, Frederica, and Snowland. In light of extensive modern coastal development, Sussex County landings are more difficult to identify, but sites of particular interest may be found all along the inland bays from Assawoman Bay north to Rehoboth Bay. Allusions in period documents refer to various wharves and landfalls all along Indian River, Slaughter Neck, Cedar Neck, Prime Hook Neck, Cedar Creek, and Broadkill River.

Landing sites evoke images of shipping, and shipping summons up the problem of shipwrecks. Wrecks varying from workboats to merchantmen are known to exist for all time periods all along the coastal reaches of Delaware. While famous underwater sites such as the *De Braak* or China wreck date from later periods, it is clear that the advent of significant numbers of historic wrecks dates to the colonial development of landings and shoreline navigational aids. Currently, we know very little about Delaware's early historical underwater cultural resources or about historical patterns in the incidence and location of shipwrecks.

This theme requires more intensive research. Examples of property types for this theme include ships, landings, and the development of navigational aids such as early lighthouses and charts.

Cultural Trends

11B Settlement Patterns and Demographic Change. Although subject to occasional pirate raids and political disputes, the Coastal Zone continued as the major geographic orientation for Delaware's growing interior settlements. One result of the Coastal Zone's becoming a water-borne highway of sorts was the urbanization of key port towns, particularly Lewes, New Castle, and Wilmington. The development of new landing sites, wharves, stores, and crossings was directly related to emerging backcountry economic and social developments. Surface archaeological collections made along the banks of the Mispillion River in Cedar Neck for example, indicate extensive waterside settlement. Because so much of the Coastal Zone cultural

resource materials for the 1730-1770 +/- period exists archaeologically, it is important that all urban, resort, and land reclamation projects be evaluated with great care.

As in the early historic period, little is known about the population and occupational trends in the 1730-1770 +/- time frame. The earlier population, composed of an ethnic mix representing Dutch, Scandinavian, and British interests, became overwhelmingly Anglo-American in character. Again, increased emphasis on demographic and settlement patterns throughout the Coastal Zone remains a research priority. While some limited information exists for Lewes, Port Penn, Leipsic, and other nucleated communities, the overall situation is one of deficient historical information.

This theme requires more intensive research and the identification of property types.

12B Architecture, Engineering, and Decorative Arts. This theme requires more intensive research and the identification of property types.

13B Government. This theme requires more intensive research and the identification of property types.

14B Religion. This theme requires more intensive research and the identification of property types.

15B Education. This theme requires more intensive research and the identification of property types.

16B Community Organizations. This theme requires more intensive research and the identification of property types.

17B Occupational Organizations. This theme requires more intensive research and the identification of property types.

18B Major Families, Individuals, and Events. This theme requires more intensive research. Examples of property types for this theme include shipyards and the houses of shipbuilders and ship's captains.

Early Industrialization

1770 - 1830 +/-

Location patterns for property types identified with the Coastal Zone, 1770-1830 +/-, are consistent with earlier, colonial patterns. Major additions are historic changes affecting agriculture, transportation and

communication, trapping and hunting, fishing and oystering, manufacturing, retailing and wholesaling, architecture, engineering, and decorative arts, and settlement patterns and demographic change. Waterfront areas began to show evidence of early industrialization and a more developed coastal trade, particularly in and around established Coastal Zone towns and villages. Small craft construction also continued in nonnucleated settlements; dispersed agricultural activities extended to the ditching and damming of tidal lands for salt hay pastures.

Survival rates for all property types related to Coastal Zone, 1770-1830 +/-, remain relatively high compared with other zones in the state. The earliest surviving architectural fabric of most coastal towns reflects this period of development and can be seen in communities such as Port Penn, New Castle, Lewes, and Milton. The extent and nature of archaeological materials for the Coastal Zone in this period are largely unexplored. Sub-zone survival patterns and recommendations are the same as for the preceeding Coastal Zone time period.

Economic Trends

1C Agriculture. During the late colonial period, increased resources were spent on projects involving the ditching, diking, and draining of wetlands for conversion to agricultural or building purposes. Evidence for these early land reclamation projects is still visible through high level aerial and satellite photography. Projects designed to rehabilitate marsh as meadow or arable land were implemented along the entire length of the coastal zone. Individual landholders and farmers hired day labor or employed slaves to ditch and drain wetlands for use as grazing land or hay fields. Diking, ditching, and fencing were also undertaken by land speculation companies such as the New Castle Marsh Company in the 1790s and similar operations were conducted all the way down the Delaware coast. Examples of property types for this theme include ditching, fencing, and other forms of land reclamation.

2C Forestry. This theme requires more intensive research and the identification of property types.

3C Trapping and Hunting. This theme requires more intensive research

and the identification of property types.

4C Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5C Fishing and Oystering. It was during this period that commercial fishing began to flourish as a major economic enterprise. References to shad galleys used to attack British ships off of Pea Patch Island and listings of nets, boats, and barrels of salted fish in cellars provide early indications of Delaware's growing fishery. This theme requires more intensive research. Examples of property types for this theme include docks and ships.

6C Manufacturing. This theme requires more intensive research and the identification of property types.

7C Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include town stores and shipchandlers' stores.

8C Finance. This theme requires more intensive research and the identification of property types.

9C Professional Services. This theme requires more intensive research and the identification of property types.

10C Transportation and Communication. The improvement in navigation and of other transportation networks led to a market reorientation of towns and water-side settlements. The most basic element was the private landing associated with a farm, boatyard, or fishing operation. Traffic to and from the landings by means of shallop, scow, or bateau was directed toward coastal ports. Here cargo was transferred to coastal trading schooners and shipped on to urban markets. An important element in this backcountry-to-urban market network was the growing role of small ports as centers of local trade, industry, and shipbuilding. Examples of property types for this theme include ships, ports, and crossings.

Cultural Trends

11C Settlement Patterns and Demographic Change. The 1770-1830 +/- period in the Coastal Zone's historical development is crucial in terms of the relationships between broad historical patterns and surviving architec-

tural and structural resources. In this period, water-oriented villages and towns were spatially regularized through the use of grid town plans. Wilmington, New Castle, Lewes, and Port Penn were all built on grid plans as population centers designed in conjunction with sheltered anchorages, local landings, coastal markets, and established land transportation networks. Port Penn, New Castle, and Wilmington also incorporated market squares into their overall plans. Other established towns with similar economic and ecological land associations developed in a more piecemeal fashion along the intersection of roads and water. Toward the end of the period, towns such as Odessa and Leipsic began to be reorganized into more regular plans.

Land reclamation had a visible impact on landscape patterns through town planning efforts that called for new towns and cities to be built on recovered land. The scale of such schemes is particularly apparent in early town plans. For Port Penn and Delaware City, the founders extended, on paper, a grid of streets and blocks well out into the Delaware River. Evidence for early dikes, canals, windmills, and customs house remain at Port Penn. Wilmington, particularly from Fourth Street to the river, also expanded its waterfront on reclaimed land. In New Castle, bulkheads were constructed and the first ice piers installed as part of a shoreline stabilization process. Although similar town growth activities took place in the lower reaches of the state, they were not of the scale found in New Castle County.

The 1770-1830 +/- period represents the first time period for which there is more than minimal demographic information relative to the Coastal Zone. Several economic and cultural trends produced clear shifts in Coastal Zone occupational and population characteristics. First, an occupational group akin to modern watermen emerged; second, coastal town and village populations increased; third, maritime-related activities produced population centers oriented away from all agricultural concerns.

Census takers in this period listed town and village populations, with their occupations, separately from the surrounding countryside. From Port Penn to Milton, Coastal Zone towns became the focal points for ship and boat builders, ship chandlers, blacksmiths, sailmakers, oystermen, fisher-

men, and individuals engaged in all aspects of water born work and trade. In Wilmington, watermen and others related to maritime-oriented enterprises were enumerated in the 1814 street directory. As a representative maritime population center, Wilmington was home to sea captains, ship carpenters, shipchandlers, rope makers, shipwrights, blacksmiths, watermen, customs house officials, and oyster sellers. All the allied occupations were just as important. Scores of laborers, carters, and draymen worked the wharves. Lumber dealers, dry goods merchants, and iron mongers acted as brokers for ship cargos; hucksters and fish mongers sold produce and seafood in open market places or door to door through the city. Although Wilmington's maritime population was distinctively urban in flavor, it contained all the elements found in smaller nucleated coastal settlements.

Ethnic, economic, social, occupational, and market relationships remain unstudied for coastal Delaware in this period. This theme requires more intensive research. Examples of property types for this theme include diking, ditching, fencing, and planned towns.

12C Architecture, Engineering, and Decorative Arts. This theme requires more intensive research and the identification of property types.

13C Government. State and federally financed projects exerting a direct input on Delaware's coastal landscape included fortifications such as Fort Delaware on Pea Patch Island and the Lewes Breakwater. The role of government in land stabilization and coastal improvement has remained constant since its first appearance in this time period. This theme requires more intensive research and the identification of property types.

14C Religion. This theme requires more intensive research and the identification of property types.

15C Education. This theme requires more intensive research and the identification of property types.

16C Community Organizations. This theme requires more intensive research and the identification of property types.

17C Occupational Organizations. This theme requires more intensive research and the identification of property types.

18C Major Families, Individuals, and Events. Major individuals in Delaware's historic coastal culture are also largely unidentified. This

theme requires more intensive research and the identification of property types.

Industrialization and Early Urbanization

1830 - 1880 +/-

Location patterns for property types remain essentially unchanged from the preceding time period for the Coastal Zone. Resources related to the themes of transportation and communication, major families, individuals, and events, agriculture, manufacturing, fishing and oystering, retailing and wholesaling, professional services, and settlement patterns and demographic change, however, represent major changes in navigational methods, coastal trade routes, overland trade routes, and agricultural practices. While location patterns remain constant, it is important to recognize that the theme of settlement patterns and demographic change is characterized by expansion or stasis relative to overland transportation developments, ship building, and aquaculture (oystering, menhaden fishing, etc.)

Survival rates for all property types from the Coastal Zone, 1830-1880 +/-, are quite good along the lower river and bay portions of the zone; at the northern urban and southern ocean extremes however, survival is threatened by current developmental pressures related to industrialization, landfill, and the resort economy. Subaqueous resources require intensive survey and mapping; shoreside historic cultural resources need to be evaluated relative to their integrity, representativeness, and areas of significance.

Economic Trends

1D Agriculture. This theme requires more intensive research. Examples of property types for this theme include salt hay meadows and horseshoe crab mills.

2D Forestry. This theme requires more intensive research and the identification of property types.

3D Trapping and Hunting. Market gunners, like Sam Armstrong of Delaware City, shot wild fowl for market. Muskrats, terrapin, and snapping turtles were trapped using prods and snares. This theme requires more

intensive research and the identification of property types.

4D Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5D Fishing and Oystering. In the 1830-1880 +/- period, the Delaware fisheries emerged as a major element in the state economy. Oysters, known as "white gold," were dredged from two-masted Jersey schooners anchored in ports like Leipsic and Little Creek. Shad, eels, herring, sturgeon, and other fish were trapped with fykes, drift nets, seines, and pound nets. Delaware's coastal fishery developed as a collection of individually run operations economically directed toward regional urban food markets. The primary exception to the market orientation of the fishery was in the area of agricultural fertilizers such as ground horseshoe crabs, fishmeal, and pulverized shell. From Wilmington south to the inland bays a strong water-ing tradition took hold with watermen working a seasonal round of oyster-ing, clamming, trapping, pound netting, seining, trot lining, market gunning, etc. Examples of property types for this theme include oyster schooners, pound nets, and shucking houses.

6D Manufacturing. Photographic evidence and documentary references reveal that the reaches of the Delaware (known as the "American Clyde") were the site of numerous ship building concerns, in this period. Ports like Wilmington, Milford, Milton, and Bethel became regional centers for the design, construction, and outfitting of vessels varying from coastal sailing rams to watermen's bateaux. While Wilmington was the scene of the most innovative advances in ship architecture, other towns and landings were distinguished by the regional boat types produced in major yards and individual shops. Boatyards and backyards all along the coast were the setting for the design and construction of a host of smaller (and less well documented) water craft. Significant types of regional small and medium sized craft include double-ended rail bird boats, Delaware duckers, Jersey schooners, shad skiffs, bateaux, scows, sailing rams, coastal schooners, shad galleys, and melon seeds.

A variety of satellite industries developed in the coastal communities. Net making, boat building, oyster packing houses and ship chandlers all responded to the need for diversified maritime support occupa-

tions. Examples of property types for this theme include fisheries, shipyards, water craft, and landings.

7D Retailing and Wholesaling. This theme requires more intensive research. Examples of property types for this theme include town stores and shipchandlers' shops.

8D Finance. This theme requires more intensive research and the identification of property types.

9D Professional Services. This theme requires more intensive research. Examples of property types for this theme include offices and lifesaving stations.

10D Transportation and Communication. Vastly improved navigational aids ranging from lighthouses to ice piers were created all along the coastline during this period. Although the majority of surviving lighthouses date to the 1880-1940 +/- period, they remain associated with older sites established in the 1830-1880 +/- period. Thus, the Port Mahon Lighthouse, Fenwick Island Lighthouse, and Bay View Lighthouse represent mid-nineteenth century navigational beacon sites. Major changes in navigation include the opening of the Chesapeake and Delaware Canal, the improvement of anchorages at key ports such as Lewes, New Castle, and Wilmington, continued work on the Lewes Breakwater, the development of Delaware City as the eastern terminus of the Chesapeake and Delaware Canal, the rebuilding of Fort Delaware on Pea Patch Island, and the connection of the state's first railroads to selected coastal towns. Examples of property types for this theme include the Chesapeake and Delaware Canal and the Lewes Breakwater, as well as range lights, lighthouses, piers, ferries, wharves, canals, harbors, ships, landings, and bridges.

Cultural Trends

11D Settlement Patterns and Demographic Change. Besides work and wharf spaces for the production and maintenance of watercraft of all sorts, landscape changes included wreck sites for abandoned vessels all along Delaware's coast. At least a half-dozen Jersey schooner wrecks are noted in the Leipsic harbor vicinity. The *State of Pennsylvania* remains mired in the Christiana River, and numerous wrecks representing all periods of

Delaware's Coastal Zone history have been identified. The Great Hurricane of 1878, however, destroyed many of the dikes along the coast and caused the loss of much of the land that had been reclaimed for settlement and tillage. Watermen and related artisans concentrated in settlements like Leipsic, Little Creek, Taylors Bridge, Woodland Beach, Oak Orchard, Lewes, Odessa, Port Penn, Pickering Beach, New Castle, and Delaware City. The first comprehensive population indices to Delaware's coastal culture were compiled in the 1830-1880 +/- period. First, manuscript population census schedules contain comprehensive occupational listings beginning in the mid-1800's; second, D. G. Beer's *Atlas of the State of Delaware* (1868) itemized selected businesses in short directories associated with town plots; third, George Brown Goode summarized Delaware's fisheries in a report published in 1887.

Little work has been undertaken in Delaware dealing with manuscript census returns describing coastal community population patterns. Notable, but inadequate, studies have been initiated as regards National Register of Historic Places related research for Port Penn, Delaware City, Leipsic, Little Creek, Milton, Lewes, Bethel (see Lower Peninsula/Cypress Swamp Zone), and other Coastal Zone population centers. D. G. Beer's *Atlas of the State of Delaware* (and other period atlases, in particular those for New Castle County) listed some maritime-related trades and businesses with specific street locations. Equally significant for this period are the mapped locations of Victorian hotels and resorts such as Hygenia House, Kittshamack Hotel, Augustine Beach, Logan Hotel, and the Pier Hotel. Residential navigational aids, such as the Port Mahon, Fenwick Island, and Cape Henlopen lighthouses, and the Lewes Steamboat Pier, are also listed.

The most detailed source for Coastal Zone population and occupational patterns in the 1830-1880 +/- period is Goode's 1887 description of Delaware's fishery. Goode specified fishery interests as including oysters, clams, shad, sturgeon, and menhaden. He also noted specifics concerning boat types, fishing equipment, and crew composition and he recorded this information in aggregate and local totals.

Examples of property types for this theme include navigational aids, town planning, new towns, wharves, shipyards, improved landings, processing

plants, boat houses, net drying racks, shucking houses, blacksmiths shops, sail lofts, rope walks, skinning sheds, store houses, and work buildings.

12D Architecture, Engineering, and Decorative Arts. This theme requires more intensive research. Examples of property types for this theme include lighthouses and shipbuilding yards.

13D Government. This theme requires more intensive research and the identification of property types.

14D Religion. This theme requires more intensive research and the identification of property types.

15D Education. This theme requires more intensive research and the identification of property types.

16D Community Organizations. This theme requires more intensive research and the identification of property types.

17D Occupational Organizations. This theme requires more intensive research and the identification of property types.

18D Major Families, Individuals, and Events. This theme requires more intensive research and the identification of property types.

Urbanization and Early Suburbanization

1880 - 1940 (1980) +/-

Location patterns for property types identified with the Coastal Zone, 1880-1940 +/-, remain consistent with those described for the 1830-1880 +/- period. Of particular note are increased numbers of identifiable property types related to trapping and hunting, fishing and oystering, retailing and wholesaling, and major families, individuals, and events that were associated with small-scale economic enterprises.

Survival rates for the Coastal Zone, 1880-1940 +/-, property types are, at present, high. But with current changes in the economic, social, and topographical patterns, the projected survival rate is poor. Resort development, industrialization, over-fishing, pollution, erosion, and silting have accelerated since 1945. The resulting pressures on Coastal Zone historic cultural resources are extreme. Underwater archaeological resources from this and earlier time periods are equally threatened by changes in navigation, dredging, and technological advances in remote

sensing used by salvors without regard for historic resource protection. Without adequate information on the full nature and extent of property types for any time period in the Coastal Zone, matters of preservation priorities based on condition and integrity must be deferred pending the development of a baseline inventory and broad patterns of object-represented significance.

Economic Trends

1E Agriculture. This theme requires more intensive research. Examples of property types for this theme include salt hay meadows and reclaimed marginal lands.

2E Forestry. This theme requires more intensive research and the identification of property types.

3E Trapping and Hunting. The migratory wildfowl laws of 1913 and 1918 ended legal water fowling for market. This theme requires more intensive research. Examples of property types for this theme include muskrat skinning houses and hunting blinds.

4E Mining and Quarrying. This theme requires more intensive research and the identification of property types.

5E Fishing and Oystering. Fisheries in this period continued to develop as noted in the previous one. Notable developments in the Delaware fisheries were recorded in an 1887 federal report. By the mid-twentieth century, pollution and overfishing had reduced the scope of the economy. Menhaden fisheries in the south, horseshoe crab harvests along the bay, and trapping all along the coast flourished. Oystering and sturgeon fishing for caviar began to decline toward the end of the period. Examples of property types for this theme include docks, oyster schooners, shucking houses, bateaux, and other work boats.

6E Manufacturing. This period saw the advent of fish-processing plants and oyster-shucking and crab-picking houses where sea produce was prepared for everything from fertilizer to table delicacies. These "preparation" industries appear to be closely related to statewide developments in the canning industry and a growing truck-farm economy.

Following the introduction of steam- and diesel-powered engines in

major vessels, ship building dropped off in many coastal towns. The Great Depression of the 1930s speeded the approaching end of Delaware's position as a center for naval architecture. Small craft forms continued to be built and developed into new forms from Claymont (first form-cast concrete pontoon) to Selbyville (northern edge in the development of the flat-bottomed scow). Examples of property types for this theme include fish-processing plants and shipbuilding yards.

7E Retailing and Wholesaling. This theme requires more intensive research and the identification of property types.

8E Finance. This theme requires more intensive research and the identification of property types.

9E Professional Services. This theme requires more intensive research. Examples of property types for this theme include offices, pilots' stations, and lifesaving stations.

10E Transportation and Communication. New navigational aids, like the Reedy Island, Christina River, and Liston Point range lights, were commissioned and maintained by the federal government. Day trips by steamer and later on excursion boats like the *State of Pennsylvania* were a must for urbanites of the late Victorian and Edwardian periods. The age of the automobile ushered in the possibility of day trips to points further from home, with the result that summer colonies at Rehoboth, Lewes, and Fenwick Island began to grow in the mid-1900s.

Examples of property types for this theme include ships and landings.

Cultural Trends

11E Settlement Patterns and Demographic Change. Resorts strung along Delaware's shoreline had been a fact since the late eighteenth century. In this period, Delaware's resort industry began to flourish. Sussex County accounts from the federal period describe fairs on the beaches near modern Rehoboth. Resort hotels (such as the Augustine Beach Hotel and Hygenia House) began to be built and drew on an urban clientele ready to travel for health and vacation. Coastal resorts, some of which began as Methodist campgrounds, grew rapidly in the late twentieth century with a corresponding loss of earlier architectural and archaeological remains.

Landscape changes to the Delaware coastline have been most dramatic in

the last century. Major transformations in the environments along the ocean, bay, and river shore lines may be grouped as erosion, landfill and reclamation, urbanization, and floral and faunal changes.

Erosion has a number of assigned causes including rain runoff, prop wash, subsidence, and storm damage. While the great storms of the 1870s and 1930s wreaked extensive damage with tidal surges and high surf, they tend to be representative of cataclysmic events paralleling more subtle changes. Intensive agriculture in the 1880-1940 +/- period, for example, accelerated rainwater runoff, so that the torrential rains associated with tropical storms produced more extensive damage. Likewise, increased water-borne traffic along tidal creeks and the intensified use of land up to the water's edge undermined and otherwise weakened shore banks.

Average annual erosion rates recorded from the 1840s through the 1960s varied considerably, with the most extreme losses occurring at Port Mahon and North Indian River Inlet. More stable areas include South Bethany, Fenwick Island, and Bowers Beach. In some instances the shoreline has grown dramatically, particularly at Cape Henlopen, which has been extended over 4,000 feet since 1842. Finally, despite major changes in flora and fauna, the riparian shoreline of New Castle County has remained stable, although runoff and landfill have reduced the extent of adjacent marshes.

The most dramatic manmade change in this period was the growth of intensive resort developments. Early beach-front developments included Augustine Beach, Woodland Beach, and Rehoboth. Resort development in the Victorian era centered on a single gun club or hotel, like Hygenia House. By the 1920s whole neighborhoods began to spring up in communities such as Rehoboth. The most extensive manmade changes, however, took place after 1945 as low-level, high-density resort developments appeared along the entire length of Delaware's Coastal Zone.

As in earlier time periods, historic patterns in population are difficult to discern. The reason for this problem rests in the fact that coastal populations have been historically documented in relationship to land-oriented settlements. Still, population patterns as evidenced in coastal communities such as Port Penn, Lewes, or Rehoboth suggest can some basic characteristics for the peopling of the Coastal Zone.

Coastal Zone population centers may be geographically clustered by specific coastal environments: ocean (Rehoboth, Ocean View, and Bethany Beach), bay (Lewes, Bowers, Leipsic, and Little Creek), and river (Port Penn, Delaware City, Wilmington, New Castle, and Odessa). Several of these communities have been the subjects of National Register of Historic Places research focused on aspects of maritime living (see Leipsic/Little Creek, Port Penn, and Delaware City).

Overall population trends relative to the Coastal Zone are difficult to measure due to census taking by political rather than geographic units. Still, looking at coastal town populations from 1880 through 1940 reveals, first, the initial appearance of new towns like Bethany Beach and Ocean View, and second, little growth in other towns such as Lewes, Delaware City, and Port Penn. Also significant are the early notations made for seasonal populations in places like Rehoboth, where at the turn of the century, the town increased its population five-fold in the summer months.

The 1880-1940 +/- population patterns for the Coastal Zone (as in all other Coastal Zone historic periods) is a critical research concern. Town occupations and populations may be measured, but information on isolated residences or unincorporated villages is almost totally undeveloped.

This theme requires more intensive research and the identification of property types.

12E Architecture, Engineering, and Decorative Arts. This theme requires more intensive research and the identification of property types.

13E Government. This theme requires more intensive research and the identification of property types.

14E Religion. This theme requires more intensive research and the identification of property types.

15E Education. This theme requires more intensive research and the identification of property types.

16E Community Organizations. This theme requires more intensive research and the identification of property types.

17E Occupational Organizations. This theme requires more intensive research and the identification of property types.

18E Major Families, Individuals, and Events. Notable families invol-

ved in maritime activities include the Cleavers, Foxes, Storys, Shorts, and Armstrongs. This theme requires more intensive research. Examples of property types for this theme include houses and factories of processing plant owners.

Appendix A:

CHRONOLOGY OF DELAWARE HISTORY³

- 1609 August 28. Henry Hudson, an Englishman in the service of the Dutch East India Company, discovers Delaware Bay and River.
- 1610 August 27. Capt. Samuel Argall names what is now called Cape Henlopen "Cape de la Warre" for the Governor of Virginia, Sir Thomas West, Lord de la Warre.
- 1614 Near site of present-day Wilmington, Captain Cornelis Hendricksen ransoms from Indians the first three white men known to have trod Delaware soil.
- 1631 April. Expedition from Holland sent by David Peterson de Vries for the patroons settles 28 colonists at Swanendael (Lewes).
- 1632 December 6. De Vries arrives at Swanendael to find the settlement completely wiped out by Indians.
- 1638 March 29 (or earlier). First Swedish expedition commanded by Peter Minuit arrives at The Rocks (Wilmington), establishing the first permanent settlement on Delaware soil.
- May 6. Dutch at New Amsterdam protest right of Swedes to trade or settle on the river.
- 1640 April 17. Reorus Torkillus, first Lutheran preacher to have a charge in this country, arrives at Fort Christina.
- 1643 February 15. Johan Printz arrives at Fort Christina as Governor of New Sweden.
- 1651 July-August. Peter Stuyvesant, Dutch director of New Netherland, builds Fort Casimir at Sand Hook (New Castle).
- 1653 September-October. Johan Printz returns to Sweden with 25 soldiers and settlers.
- 1654 May 21. Johan Classon Rising, new Swedish Governor, captures Fort Casimir and renames it Fort Trinity.
- 1655 September 1. Peter Stuyvesant recaptures Fort Trinity, which thereby again becomes Fort Casimir.
- September 15. Fort Christina and all Swedish claims surrendered to Dutch.

³ Taken from Jeanette Eckman, Delaware: A Guide to the First State (New York: Hastings House, 1955).

- November 29. Jean Paul Jacquet appointed by Stuyvesant as vice-director on South River at Fort Casimir.
- 1657 April 21. Jacob Alrichs arrives at Fort Casimir as director for the burgomasters of Amsterdam, who name the place New Amstel.
- 1659 September 6. Colonel Nathaniel Utie presents, at New Amstel, Lord Baltimore's claim to Dutch settlements on South River.
- December 30. Jacob Alrichs dies, after having appointed Alexander D'Hinoyossa his successor.
- 1663 July. Peter Cornelius Plockhoy establishes a Mennonite colony of "41 souls" at Swanendael (Lewes).
- 1664 October. Sir Robert Carr seizes the Delaware territory for the Duke of York.
- 1667 Crane Hook Church built by the Swedes near the mouth of Christina Creek.
- 1669 December 20. Count Konigsmark, "The Long Finn," is condemned for insurrection in the first trial by jury on the Delaware.
- 1673 Dutch regain control and establish courts at New Castle and Hoorn-kill, or Hoerekill (Lewes).
- 1674 Dutch possessions in North America again pass to British.
- 1676 September 22. Duke of York's laws established and courts at Whore-kill (Hoerekill, later Lewes) are continued.
- 1680 St. Jones' County formed by dividing territory south of Bombay Hook.
- 1682 October 28. William Penn, new Quaker proprietary, welcomed at New Castle.
- November 2. First court under Penn meets at New Castle.
- December 4. Representatives of the three Lower Counties attend Penn's first Assembly at Upland (Chester, Pennsylvania).
- December 25. Deale and St. Jones Counties, the two parts of Hoorn-kill (Whorekill) renamed Sussex and Kent counties, respectively.
- 1683 May 30. First conference between William Penn and Lord Baltimore upon the exact boundaries of their respective provinces proves fruitless.
- 1686 May 26. Maryland Council appropriates supplies for men at Talbot's Fort at Christina Bridge to enforce Lord Baltimore's territorial claim.
- 1698 August 27. Pirates land at Lewes and pillage the town.

- 1699 June 4. Swedish church at Christina dedicated on Trinity Sunday.
Crew of brigantine *Sweepstakes* mutinies at New Castle and seizes the ship which is "piratically taken away."
- 1700 April. Captain Kidd visits Delaware Bay and trades with Lewes residents.
- 1701 First survey of the boundary circle is made with "ye end of ye horse dyke" in New Castle as its center.
- 1704 November. Three Lower Counties under charter of 1701 convene in first separate Assembly at New Castle.
- 1709 May 7. Lewes plundered by French privateer.
- 1711 Gustavus Hesselius, first notable painter in America, arrives at Old Swedes Church (Wilmington).
- 1717 General Assembly at New Castle appoints commissioners to lay out town of Dover as county seat of Kent.
- 1718 July 30. William Penn dies; Hannah Penn, his wife, is made executrix for proprietaries.
- 1722 Home of Colonel John French in New Castle destroyed by fire; legislative minutes and other records burned in the house.
- 1730 Andrew Justison, father-in-law of Thomas Willing, has the first streets of Willingtown surveyed.
- 1734 Voting for members of General Assembly made compulsory for citizens of the Three Lower Counties, under penalty of 20 shillings.
- 1735 August 9. William Shipley, "Father of Wilmington," buys land in Willingtown.
- 1738 Autumn. First Friends' Meetinghouse in Willingtown erected at High (Fourth) and West Streets.
- 1739 November 16. Willingtown becomes by charter the Borough of Wilmington; its population is 610.
- 1740 Scotch-Irish residents of Wilmington erect First Presbyterian Church.
March 31. Land is purchased in Wilmington on Market Street above Third for erection of gaol, stocks, and whipping-post.
September 8. William Shipley chosen chief Burgess at the first election in Wilmington.
- 1748 Summer. Quakers help other Wilmington residents erect redoubt on site of Fort Christina, to repulse expected attack by French and Spanish privateers.

- 1750 November 15. Boundary commissioners fix upon the Court House as center of twelve-mile circle about New Castle.
- 1751 The seal of the three counties with the inscription "Delloware" is replaced with a new great seal of silver, containing arms of King of Great Britain and "Counties on Delaware."
- 1754 David Ferris and Joseph Tatnall are members of library company formed in Wilmington.
- 1761 James Adams establishes at Wilmington the first printing press in Delaware.
- 1767 November 30. First of John Dickinson's "Letters from a Farmer in Pennsylvania to the Inhabitants of the British Colonies" appears.
- 1769 June 3. Scientists, from point near Cape Henlopen, observe transit of Venus over the Sun.
- November 10. John Penn, representing Thomas and Richard Penn, proprietaries, signs the charter establishing Newark Academy.
- 1774 August 22. Caesar Rodney, Thomas McKean, and George Read appointed delegates to the first Continental Congress.
- 1775 Population of Delaware 37,219; of Wilmington 1,229.
- December 22. Friendship Fire Company, first in the state, organized at Wilmington.
- 1776 January 19. John Haslet is commissioned colonel of the Delaware Regiment.
- May 8-9. The schooner *Wasp* and several row-galleys harass British frigates *Roebuck* and *Liverpool* opposite mouth of Christina Creek until they retire down the river.
- June. 1,000 Tories assemble in Cedar Creek Hundred; disperse after conference with members of Council of Safety.
- June 3. "Flying Camp" is established with Colonel Samuel Patterson in command.
- July 1-2. Caesar Rodney rides from Dover to Philadelphia to break tie between McKean and Read over Delaware's vote on Declaration of Independence.
- September 10. Convention at New Castle frames first constitution for "The Delaware State."
- October 28. First legislature under the new state constitution meets at New Castle.

- 1777 January 17. Legislature adopts design for Great Seal of the Delaware State.
- April 5. David Hall is commissioned colonel of the new Delaware Regiment.
- May 12. Dover supersedes New Castle as seat of government.
- August 24-25. Main body of Continental Army, under the personal command of General Washington, passes through Wilmington.
- August 26. General Anthony Wayne, under orders from Washington, comes to Wilmington.
- September 3. Battle of Cooch's Bridge, the only Revolutionary War engagement on Delaware soil.
- September 13. Vessel with Delaware documents, monies, and private valuables is seized under guns of the fort at Wilmington; President of Delaware John McKinly taken prisoner.
- October 20. First meeting of the General Assembly at Dover.
- 1778 September 12. Freeboro Garrettson, a Methodist missionary, preaches from Academy steps in Dover.
- 1779 February 1. Assembly ratifies Articles of Confederation and authorizes Washington to quarter Pulaski's cavalry within the state.
- 1780 August 16. Casualties in the Delaware Regiment at Battle of Camden, S.C. reach 265; remnants organized into two companies under Captain Robert Kirkwood.
- 1781 July 10. Thomas McKean of Delaware elected President of Continental Congress.
- November 15. State schooner *Vigilant* ordered to protect trade on Delaware Bay and River.
- 1782 September 11-12. British ships in Delaware Bay attack French ships *La Gloire* and *L'Aigle*; Louis Philippe, Comte de Sègur, and other French officers and soldiers escape to Delaware shore with one-half million livres in gold to pay French soldiers of Lafayette.
- 1783 September 13. Richard Allen, later A.M.E. bishop, is the first African-American to preach in Wilmington.
- 1784 November 14. Francis Asbury meets Thomas Coke and Richard Whatcoat at Barratt's Chapel near Frederica; the outcome is the organization of the Methodist Episcopal Church at the Baltimore conference of Methodist societies during Christmas week of 1784.

- 1787 February 3. John Fitch granted exclusive rights by the General Assembly to use the steamboat he invented.
November 10. Oliver Evans granted exclusive rights by the General Assembly to manufacture and sell the steam-carriage he invented.
December 7. Delaware becomes the first state to ratify United States Constitution.
- 1789 February 3. The Medical Society of Delaware is incorporated.
- 1790 Population of Delaware (U.S. Census) 59,096.
August 5. John Fitch's steamboat makes a scheduled trip from Philadelphia to Wilmington and "Christeen" Bridge.
- 1791 Heirs of Penn sue through Thomas McKean for quit rents and proprietary land.
Robert Coram, a Wilmington schoolmaster, publishes his "Plan for the General Establishment of Schools Throughout the United States."
Outbreak of revolution in Santo Domingo brings many French refugees to Wilmington.
October 29. The General Assembly designates Georgetown as county seat of Sussex.
- 1792 June 12. Second state constitution is adopted.
October. William Cobbett, later a noted English writer and reformer, arrives in Wilmington, where he teaches school.
- 1793 Wilmington becomes a port of safety for ships and people avoiding the yellow fever epidemic in Philadelphia.
- 1795 First cotton factory opened in Old Academy, Wilmington, by Jacob Broom.
February 9. Bank of Delaware, in Wilmington, chartered as the first bank in the state.
- 1796 The General Assembly creates a public school fund, made up of all money from the sale of marriage and tavern licenses.
- 1797 May 12. Vice President Thomas Jefferson stays overnight at Patrick O'Flynn's Tavern in Wilmington.
- 1798 Yellow fever, brought to Wilmington by refugees from Philadelphia, claims 250 victims.
May 25. British sloop-of-war *DeBraak* sinks off Lewes with the loss of 40 lives and its cargo, reputed to be gold valued at \$1,000,000.

- 1799 February 1. The General Assembly permits "free black persons and free mulattoes" to testify in criminal cases.
- 1800 Population of Delaware 64,273.
Custom House moved from New Castle to Wilmington.
- 1802 June. Eleuthère Irénée du Pont Nemours buys land on the Brandywine and begins to manufacture gunpowder.
- 1803 January 10. Vice President Aaron Burr is detained in Wilmington for three days by deep snow.
- 1805 July 25. Thousands attend first Methodist camp-meeting in Delaware, three miles south of Smyrna.
- 1806 February 5. Robert Montgomery Bird, author and dramatist, born at New Castle.
- 1807 January 20. President Jefferson appoints Caesar A. Rodney as attorney-general of the United States.
- 1810 Population of Delaware 72,674.
- 1811 By Act of Apportionment by Congress, the number of Delaware's representatives in Congress is increased from one to two.
- 1813 March. Fort Union constructed at "The Rocks" (landing place of Swedes).
April 6. Lewes is bombarded for 22 hours by the British fleet; "one chicken killed, and one pig wounded, leg broken."
May 27. Pea-patch Island ceded to United States for the erection of fortifications.
August 11. Dr. James Tilton of Wilmington is appointed physician general of United States Army.
September 13. "United Church of Africans," Wilmington, the first church in United States organized and entirely controlled by African-Americans, is legally recorded.
- 1814 February 4. Commodore Oliver Hazard Perry, hero of Lake Erie, visits Wilmington.
September 11. Commodore Thomas Macdonough, native of Delaware, victorious over British Fleet on Lake Champlain.
December 24. James A. Bayard signs Treaty of Peace at Ghent, ending the War of 1812.
- 1820 Population of Delaware 72,749.

- 1822 February 22. Dam broke and mills damaged when the Brandywine River rises 20 feet.
- 1823 January 27. Caesar A. Rodney appointed Minister Plenipotentiary to Buenos Aires.
- 1824 January 20. "The African school society of Wilmington" incorporated by African-Americans for the education of their children.
- April 23. The Strand in New Castle is devastated by "great fire," entailing loss of \$100,000.
- October 6. General Lafayette feted in Wilmington.
- 1828 May 23. Congress makes a first appropriation of \$250,000 to construct Delaware Breakwater at Lewes.
- 1829 February 12. First general free school law of Delaware is enacted; counties divided into school districts.
- April 18. Louis McLane of Delaware appointed minister to Great Britain.
- July 22. Martin Van Buren attends Louis McLane dinner in Wilmington Town Hall.
- October 17. Chesapeake and Delaware Canal opened.
- 1830 Population of Delaware 76,748.
- 1831 Joseph Bancroft establishes Bancroft Cotton Mills at Rockford on the Brandywine River.
- February 8. \$100,000 fire almost destroys Fort Delaware.
- July 4. One and one-half miles of New Castle and Frenchtown Railroad officially opened; horse cars used.
- December 2. Third state constitution framed.
- 1832 January 18. The General Assembly grants a city charter to Wilmington.
- March 7. Richard H. Bayard chosen first mayor of Wilmington.
- September 10. First steam locomotive used on New Castle and Frenchtown Railroad.
- 1833 May 29. Louis McLane of Delaware, U.S. secretary of treasury, is appointed U.S. secretary of state.
- June 28. President Andrew Jackson is given reception at City Hall in Wilmington.
- 1834 May 8. Opening ceremonies of Delaware College at Newark.

- 1835 February 11. General Assembly authorizes lottery to raise money for state and school purposes.
- 1839 April 2. Hezekiah Niles, editor of Niles' Register, dies in Wilmington.
- 1840 Population of Delaware 78,085.
October 20. Daniel Webster addresses Whig meeting of 6,000 persons in Wilmington.
- 1841 March 11. Charles Dickens visits Wilmington.
- 1844 May. The *Bangor*, the first iron seagoing propeller steamer constructed in the United States, is launched at Wilmington.
- 1846 June 5. Tornado wreaks damage in Wilmington; two killed, buildings unroofed, trees uprooted.
- 1847 February 19. General Assembly passes the first local option law in the state. (Court of Errors and Appeals declares law unconstitutional on ground that it had been submitted to the people.)
April 8. Delaware Regiment leaves for Mexico.
August 23. Henry Clay visits John M. Clayton; greeted at New Castle wharf by large crowd.
- 1848 May 29. Chief Justice Roger B. Taney of U.S. Supreme Court and U.S. District Judge Willard Hall, at New Castle, fine Thomas Garrett, Quaker abolitionist of Wilmington, \$5,400 for aiding fugitive slaves.
June 10. Congressman Abraham Lincoln, campaigning for Zachary Taylor, addresses Delawareans from the balcony of the Athenaeum (Fourth Street Market House) at Wilmington.
- 1849 January 21. Dr. John Lofland, known as "The Milford Bard," dies in Wilmington and is buried in St. Andrew's Churchyard.
March 7. John M. Clayton appointed U. S. secretary of state.
- 1850 Population of Delaware 91,532.
April 19. John M. Clayton signs Bulwer-Clayton Treaty between Britain and United States.
- 1851 May 12. President Millard Fillmore and his cabinet visit Wilmington.
- 1853 April 29. Richard Tucker, African-American, wins \$10,000 in Delaware Lottery.
July 15. President Franklin Pierce and Secretary of War Jefferson Davis speak at City Hall in Wilmington.

- 1854 May 30. Three wagon loads of du Pont powder explode on 14th Street near Market in Wilmington; five are killed and several wounded.
- 1855 June 1. Prohibition becomes effective by legislative act; prohibition repealed January 30, 1857.
- 1856 January 1. First train over Delaware Railroad runs to Dover.
- 1860 Population of Delaware 112,216.
- 1861 January 3. Hon. Henry Dickinson of Mississippi addresses the General Assembly, inviting Delaware to secede from the Union.
- April. Civil War begins. Troops from Philadelphia garrison Fort Delaware, which becomes prison camp of importance.
- May 11. Henry du Pont commissioned major-general of Delaware troops.
- June 27. Peace Convention at Dover favors peaceable recognition of Confederacy.
- November 21. Dr. Watson F. Quimby, of Wilmington, patents an apparatus, with parachute attached, for navigating the air.
- 1862 April 3. Flags captured at Port Royal by Admiral S. F. du Pont hung on walls of City Hall in Wilmington.
- November 4. William Cannon, a former Democrat, is elected governor on Union ticket.
- December 22. U.S. Senator Willard Saulsbury offers resolutions in the Senate to investigate armed interference at the Delaware polls.
- 1863 March 2. Explosion at du Pont powder packing plant at Hagley Yard on the Brandywine River; 17 killed.
- 1864 May 31. Historical Society of Delaware is organized with Judge Willard Hall as its first president.
- June 29. First horse cars run on tracks of the Wilmington City Railway.
- 1865 April 9. Brigadier-General Thomas A. Smyth dies three days after receiving mortal wound at Farmville, Virginia. (Buried in Wilmington and Brandywine Cemetery, April 17.)
- 1870 Population of Delaware 125,216.
- 1871 April 20. Masonic Temple and Grand Opera House dedicated in Wilmington.
- October 9. Earthquake shakes Wilmington and vicinity.
- 1873 February 6. President Ulyses S. Grant entertained in Wilmington by the governor and the General Assembly.

- 1874 Spring. Michael Pupin (later a noted electrical engineer and physicist) immigrates to Delaware as a boy and works on farm as muledriver.
- 1878 April. First telephone installed in Wilmington.
- 1880 Population of Delaware 146,608.
- 1881 January 4. Robert Ingersoll speaks at Grand Opera House in Wilmington, to approximately 600 people on "What Must We Do to be Saved?"
April 13. Moses America is first African-American drawn for jury service in Delaware.
- 1882 December 23. First electric street lights installed in Wilmington.
- 1883 June 1. Municipal Court in Wilmington established by act of General Assembly.
- 1885 March 5. Senator Thomas F. Bayard appointed U.S. secretary of state.
- 1887 September 30. *Volunteer*, steel-hulled racing yacht built in Wilmington, defeats *Thistle*, in International Cup Race.
- 1888 January 24. First trip over Wilmington electric street railway.
- 1889 February 26. Law passed forbidding the punishment of women at the whipping-post or pillory.
September 10-12. Many ships wrecked and 40 lives lost at Delaware Breakwater during storm.
- 1890 Population of Delaware 168,493.
- 1891 September 12. 700 workmen made idle by a fire at the Delaware Iron Company's plant at New Castle which also caused damage worth \$300,000.
August 16. Delmar nearly destroyed by fire.
- 1893 March 31. Thomas F. Bayard appointed first ambassador to Great Britain.
April 8. President Grover Cleveland visits Ambassador Bayard in Wilmington.
- 1895 May 9. General Assembly adopts Peach Blossom as the floral emblem of Delaware.
May 9. General Assembly adjourns without electing a U.S. senator, the first of a series of deadlocks occasioned by the candidacy of J. Edward Addicks.
June 15. Single-tax campaign starts in Delaware.

- October 3. Liberty Bell is exhibited at Wilmington on its way to the exposition at Atlanta.
- October 18. First Arbor Day celebration in Wilmington.
- November 3. Henry George, author of *Progress and Poverty*, addresses meeting at the Opera House in Wilmington.
- 1897 June 4. Fourth state constitution adopted; property qualifications for voting abolished.
- 1898 April 26. First Delaware Regiment encamps at Middletown to undergo training for the Spanish-American War.
- 1900 Population of Delaware 184,735.
- Howard Pyle, nationally known illustrator, opens a school of art at Wilmington.
- February 9. Robert Ingersoll indicted for blasphemy as per instructions of Chief Justice Joseph P. Comegys.
- June 12. Frank Stephens purchases 163 acres near Grubb's Corner to found the Single Tax village of Arden.
- June 27. Ordinance passed in Wilmington requiring register of vital statistics.
- 1901 February 12. General Assembly ratifies 13th, 14th, and 15th Amendments to U.S. Constitution.
- September 3. Monument unveiled at Cooch's Bridge to commemorate first (claimed) unfurling of American flag in battle, September 3, 1777.
- November 22-25. Prisoners transferred from old county jail at New Castle to New Castle County Workhouse at Greenbank.
- December 24. George K. Rudert, a Wilmington jeweler, operates an automobile in Wilmington.
- 1902 Delaware not represented in U.S. Senate because of deadlock.
- 1903 Night of June 22. George White, African-American, taken from Workhouse and burned at stake. (First and only lynching in Delaware.)
- 1905 March 20. General Assembly abolishes use of pillory in Delaware, the last state to do so.
- 1908 May 30. Monument in memory of Brigadier General John Dagworthy, in graveyard of Prince George's Church, near Dagsboro, is unveiled.
- 1909 March 18. General Assembly transfers title of the Chesapeake and Delaware Canal to the federal government.

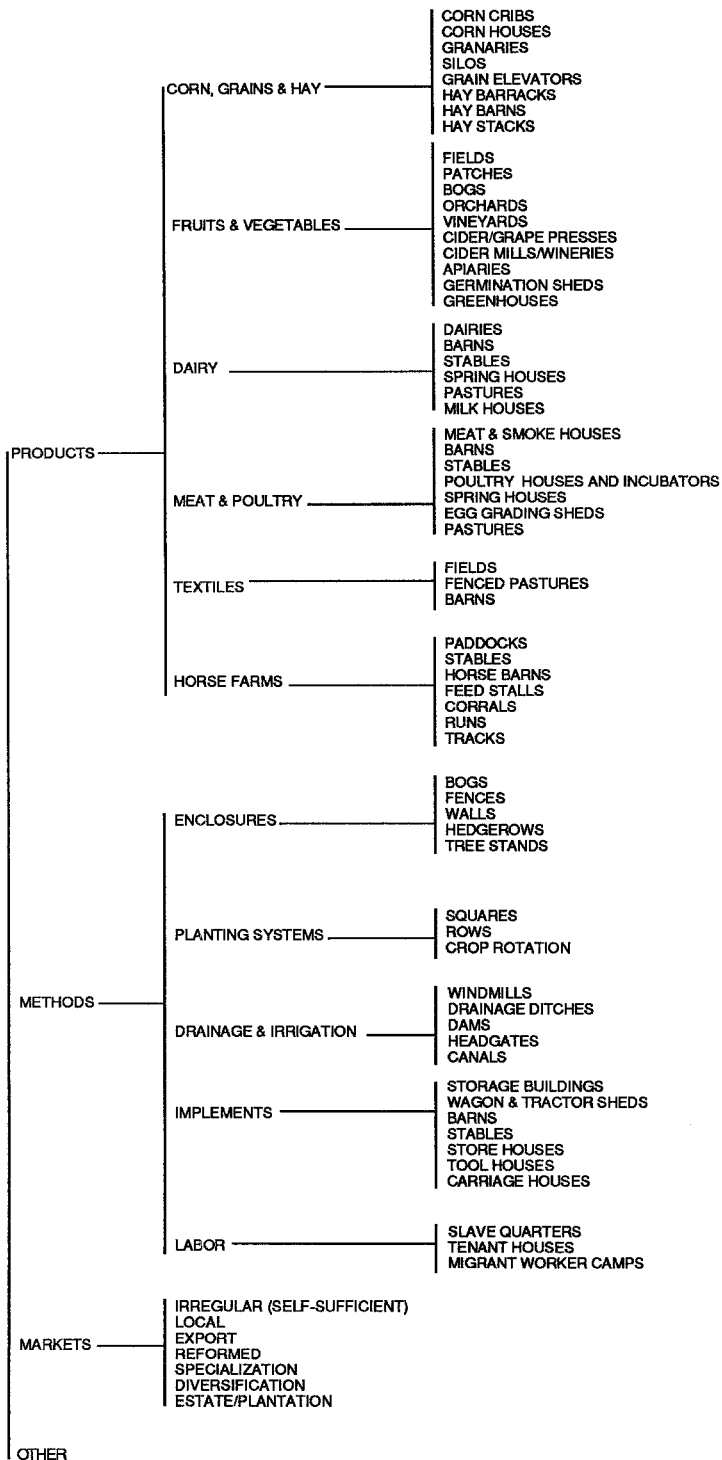
- 1910 Population of Delaware 202,322.
- 1911 General Assembly modifies corporation law to permit incorporation of du Pont Boulevard Corporation.
- 1912 July 24. A state flag is adopted, its background of Colonial blue surrounding a diamond of buff in which is placed the state's coat of arms with words "December 7, 1787" below.
- 1916 July 25. Delaware National Guard sent to Deming, New Mexico, as part of General Pershing's pursuit of Pancho Villa.
- 1917 State Highway Department created.
- 1918 August 29. First Delaware troops embark from Hoboken, New Jersey, for First World War service in France.
- September 29. Edward Thomas Demby, a native of Wilmington, is appointed suffragan bishop of the Episcopal Church in Arkansas and the Southwest, becoming the first African-American bishop of the American church with jurisdiction in the United States.
- 1920 Population of Delaware 223,003.
- December 9. All city volunteer fire companies fight a fire for 26 hours at Wilmington Leather Company; the loss was \$2,250,000.
- 1921 Wilmington volunteer fire companies merge into a single paid fire department.
- March. New School Code, basis of present educational system, is enacted.
- March 21. General Assembly ratifies boundary survey of 1892 settling boundary dispute with Pennsylvania.
- 1923 May 5. Public Library dedicated at Tenth and Market Streets, Wilmington.
- 1924 January 11. Jefferson S. Coage, Wilmington African-American, is appointed to investigate conditions in Virgin Islands.
- 1925 May 31. Crown Prince Gustavus Adolphus and Crown Princess Louise of Sweden visit Old Swedes (Holy Trinity) Church in Wilmington.
- 1930 Population of Delaware 238,380.
- 1936 October 29. President Franklin D. Roosevelt, from rear platform of a train, addresses largest gathering ever assembled in Delaware, at Delaware Avenue Station in Wilmington.
- 1937 March 27. Postmaster General James A. Farley dedicates new Post Office at Wilmington.

- June 26. Delaware Park opens at Stanton, the state Constitution having been amended in 1935 to permit pari-mutuel betting.
- June 30. Franklin D. Roosevelt, Jr. and Ethel du Pont married at Christ Church in Christiana Hundred.
- 1938 June 27. Tercentenary Celebration of the landing of the Swedes, first permanent settlement on Delaware's soil.
- 1940 Population of Delaware 266,505.
- 1941 Wholesale arrests (500) for "blue law" violations made by the attorney general to find out whether these laws were enforceable.
- December 7. The Pearl Harbor attack coincided with Delaware Day, anniversary of Delaware's ratification of the federal constitution.
- 1945 Pension system for state employees inaugurated.
- 1946 President Truman signs bill authorizing the Delaware River Bridge.
- 1947 November 29. Scheduled passenger, express and freight service opened at the New Castle County Airport.
- 1948 March. Fort Delaware, with the rest of Pea Patch Island in the Delaware River, was officially returned to the state.
- October. The Governor Bacon Health Center was opened at the site of Fort du Pont; site and buildings were transferred to the state in 1947.
- 1949 Revised public school program including state-supported uniform salary schedule for teachers and all personnel was established.
- 1950 Population of Delaware 318,085.
- 1951 Separate state Supreme Court created by Constitutional amendment; also Constitutional provision for county zoning.
- June 17. Tercentenary of New Castle's founding by the Dutch celebrated.
- August 16. The \$46 million Delaware Memorial Bridge opened to traffic.
- 1953 General Assembly directs all schools to teach Delaware state government and the Delaware and federal Constitutions.

Appendix B:

CATALOG OF PROPERTY TYPES

1. AGRICULTURE



2. FORESTRY

FORESTS
SAWMILLS
CHARCOAL FURNACES
DAMS
LOGGING CARWAYS
LUMBERYARDS
TURNING MILLS
OTHER

3. TRAPPING AND HUNTING

SHEDS
HUNTING BLINDS
OTHER

4. MINING AND QUARRYING

MINES	IRON	
	ZINC	
	ARGILLITE	
	COPPER	
	COKE	
	GEM	
	TALC	
	GRAPHITE	
	OTHER	
	QUARRIES	CEMENT ROCK
		TRAP ROCK
		LIMESTONE
WHITE MARBLE		
SANDSTONE		
GRANITE-GNEISS		
BLACK AND BROWNSTONE		
SHALE		
VERDE-ANTIQUE MARBLE		
SLATE		
SOAPSTONE		
TALCOSE		
BORROW PITS	GYP SUM	
	OTHER	
	CLAY	
	SAND	
	GRAVEL	
	SAND-LIME	
	LIME	
	GREENSAND MARL	
	PEAT BOGS	
	GROUND FELDSPAR	
OTHER		

5. FISHING AND OYSTERING

EQUIPMENT	HOMES USED FOR NETMAKING	
	NET-DRYING RACKS	
	BOATS	
	SHIPS	
	DOCKS	
	WHARVES	
	PIERS	
	OTHER	
	PROCESSING	SHEDS
		SHUCKING HOUSES
HATCHERIES		
SHELLFISH CULTIVATION SHEDS		
ICE PLANTS		
ICE HOUSES		
REFRIGERATION UNITS		
CANNERIES		
OTHER		

6. MANUFACTURING

FOOD PROCESSING	GRIST MILLS FANNING MILLS CANNERIES (VEGETABLE, FRUIT, SEAFOOD) STOCKYARDS FOOD PROCESSING PLANTS (VEGETABLE, FRUIT, SEAFOOD) ICE HOUSES BREWERIES AND SOFT DRINK PROCESSING PLANTS
TOBACCO PROCESSING	CIGAR ROLLING PLANTS
TEXTILE, APPAREL, AND LEATHER PRODUCTION	HOME MANUFACTURE - LOOMS COTTON MILLS FULLING MILLS WOOLEN MILLS INDIGO/WOOL MILLS TANNERIES
WOOD PROCESSING	HOME MANUFACTURE - BASKET MAKING, FURNITURE COOPERAGES CARPENTRY SHOPS
PAPER PRODUCTION, PRINTING, AND PUBLISHING	BARK MILLS PAPER MILLS PAPER PLANTS PRINTING PRESSES NEWSPAPER/ BOOK PUBLISHING HOUSES
CHEMICAL PRODUCTION AND PETROLEUM PROCESSING	CEMENT PLANTS PAINT MANUFACTURING PLANTS PLASTER MILLS LINSEED MILLS SOAP FACTORIES FUEL BRIQUET FACTORIES OIL REFINERIES CHEMICAL PROCESSING PLANTS FILM PROCESSING PLANTS PLASTIC PRODUCTS MANUFACTORIES
GLASS, STONE, AND CLAY PRODUCTION	GLASSWORKS POTTERY, TILE, AND BRICKWORKS
MACHINERY PRODUCTION AND METAL PROCESSING AND MANUFACTURE	HOME MANUFACTURES IRON FORGES SMITHS AND METAL WORKING SHOPS IRON MILLS STEEL MILLS NAIL MILLS WOOD SCREW MILLS IRON ROPE/CABLE FACTORIES IRON RAIL MANUFACTORIES TOOL AND DIE FACTORIES MACHINE MANUFACTORIES BUTTON MILLS HOME APPLIANCE MANUFACTORIES
	BUTTON MAKING TRAPPING TOOLS AGRICULTURE ELEMENTS TILT HAMMER SQUEEZER HAMMER STAMPING ROLLING SLITTING AGRICULTURAL IMPLEMENTS
TRANSPORTATION EQUIPMENT PRODUCTION	WAGON AND CARRIAGE MANUFACTORIES RAILROAD MANUFACTORIES RUBBER COMPONENT PLANTS BICYCLE ASSEMBLY PLANTS AUTOMOBILE ASSEMBLY PLANTS SHIPYARDS SCIENTIFIC INSTRUMENT ASSEMBLY FACILITIES
	WAGONWRIGHT SHOPS WHEELWRIGHT SHOPS ROLLING STOCK FACTORIES COMPONENT MANUFACTORIES BOAT HOUSES DRY DOCKS SAIL LOFTS ROPE WALKS RESEARCH FACILITIES AND LABORATORIES CLOCK AND WATCH MANUFACTORIES
OTHER	

7. RETAILING AND WHOLESALING

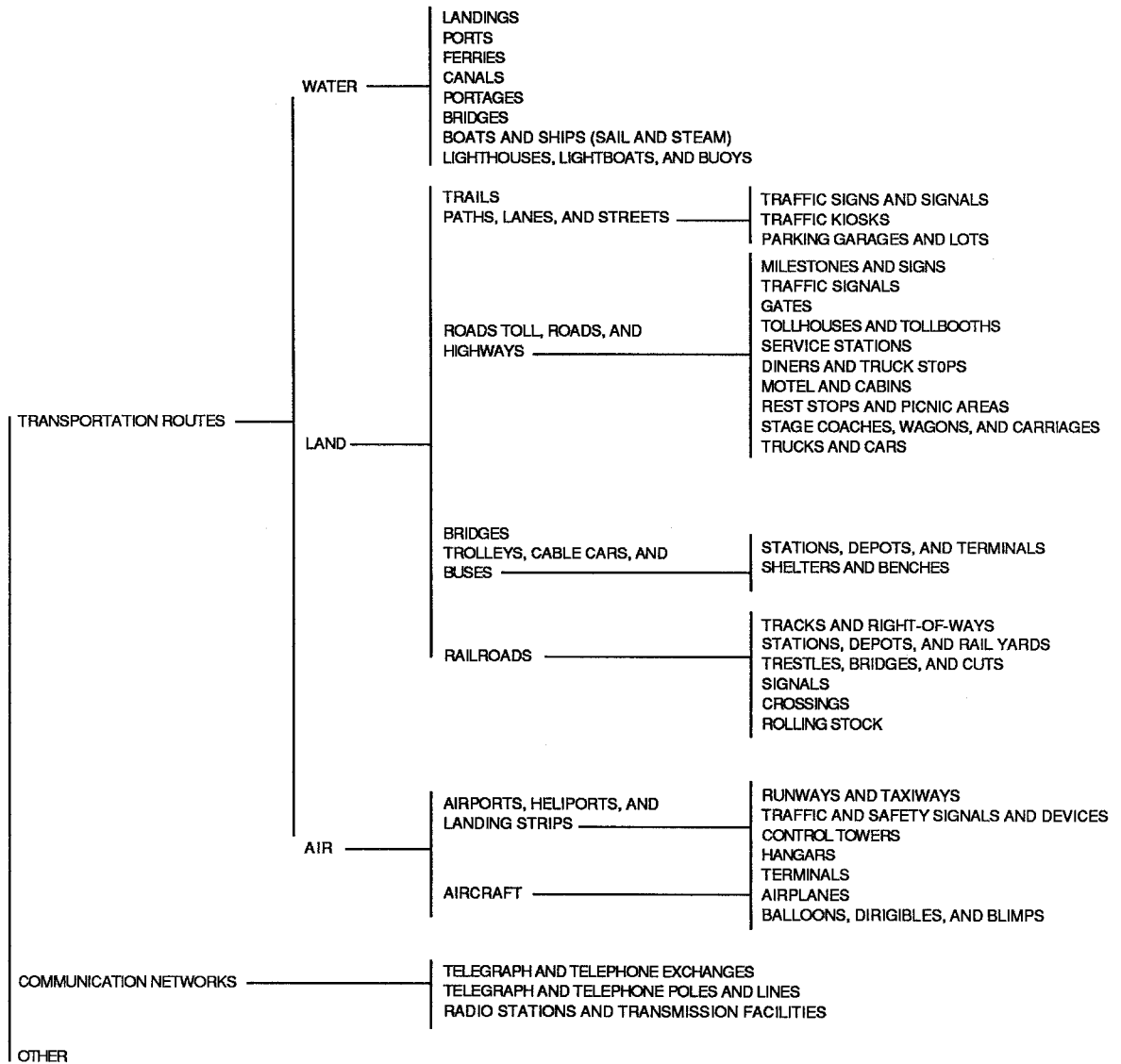
STORES	
SHOPPING ARCADES	
FARMER'S MARKETS	
CHANDLERIES	
SHIPPING DEPOTS	
WAREHOUSES	
OFFICES AND OFFICE BUILDINGS	
TRADING SITES	
REPAIR SHOPS	
RESTAURANTS	
LAUNDRIES	
BARBER SHOPS AND BEAUTY SALONS	
ENTERTAINMENT AND RESORTS	SPAS
	SPRINGHOUSES
	BEACH HOUSES
	BATH HOUSES
	HOTELS
	ARCADES, AMUSEMENT PARKS, AND PIERS
	CONVENTION CENTERS
	CABINS AND MOTELS
	HORSE RACETRACKS
	AUTO RACETRACKS
	POOL HALLS
	HOUSES OF ILL REPUTE
	TAVERNS, INNS, AND ORDINARIES
	MOVIE THEATERS
OTHER	

8. FINANCE

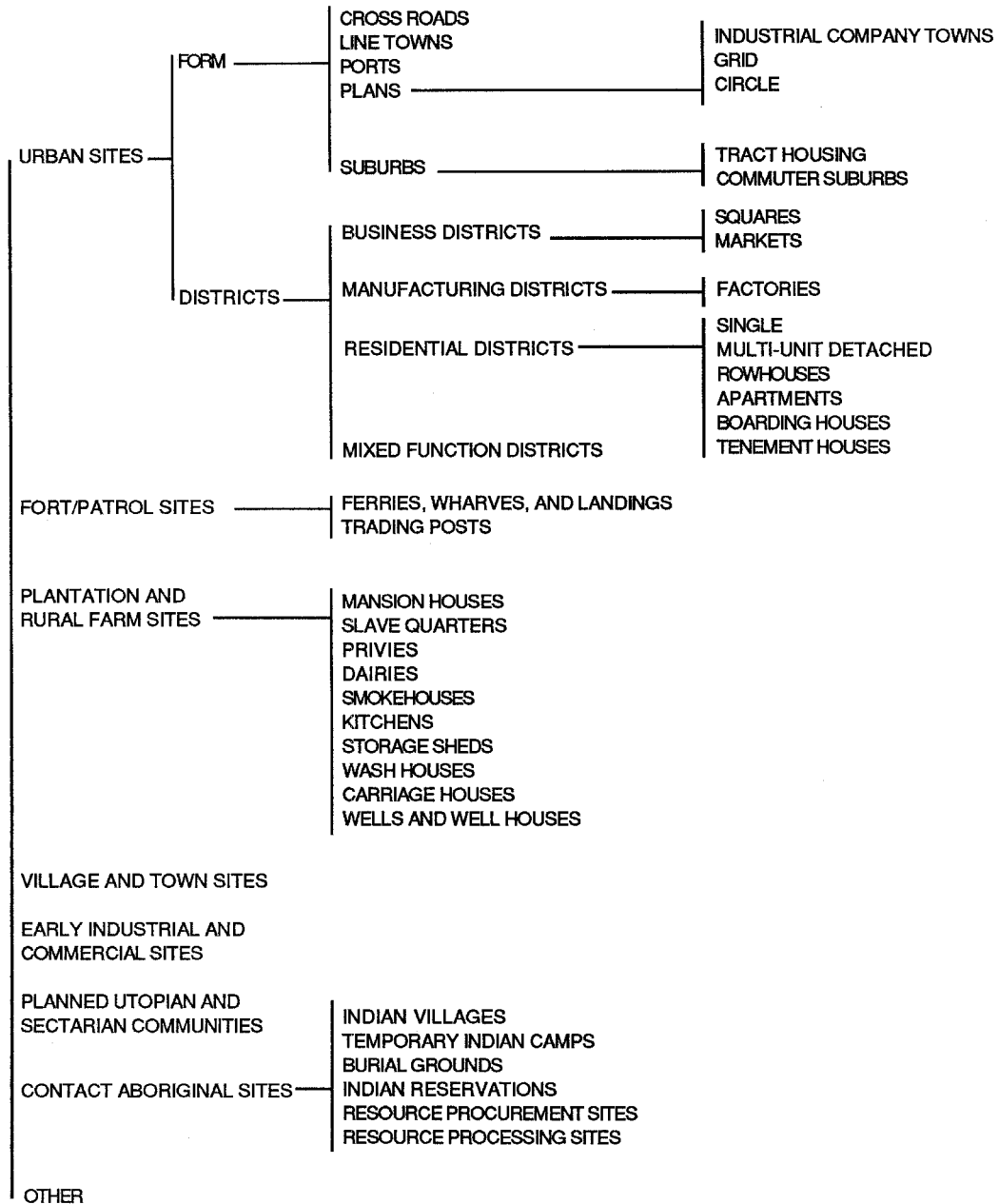
BANKS
SAVINGS AND LOAN OFFICES
STOCK EXCHANGE BUILDINGS
BROKERS' OFFICES
PAWNSHOPS
BOOKMAKERS OFFICES
OFF-TRACK BETTING OFFICES
OTHER

9. PROFESSIONAL SERVICES

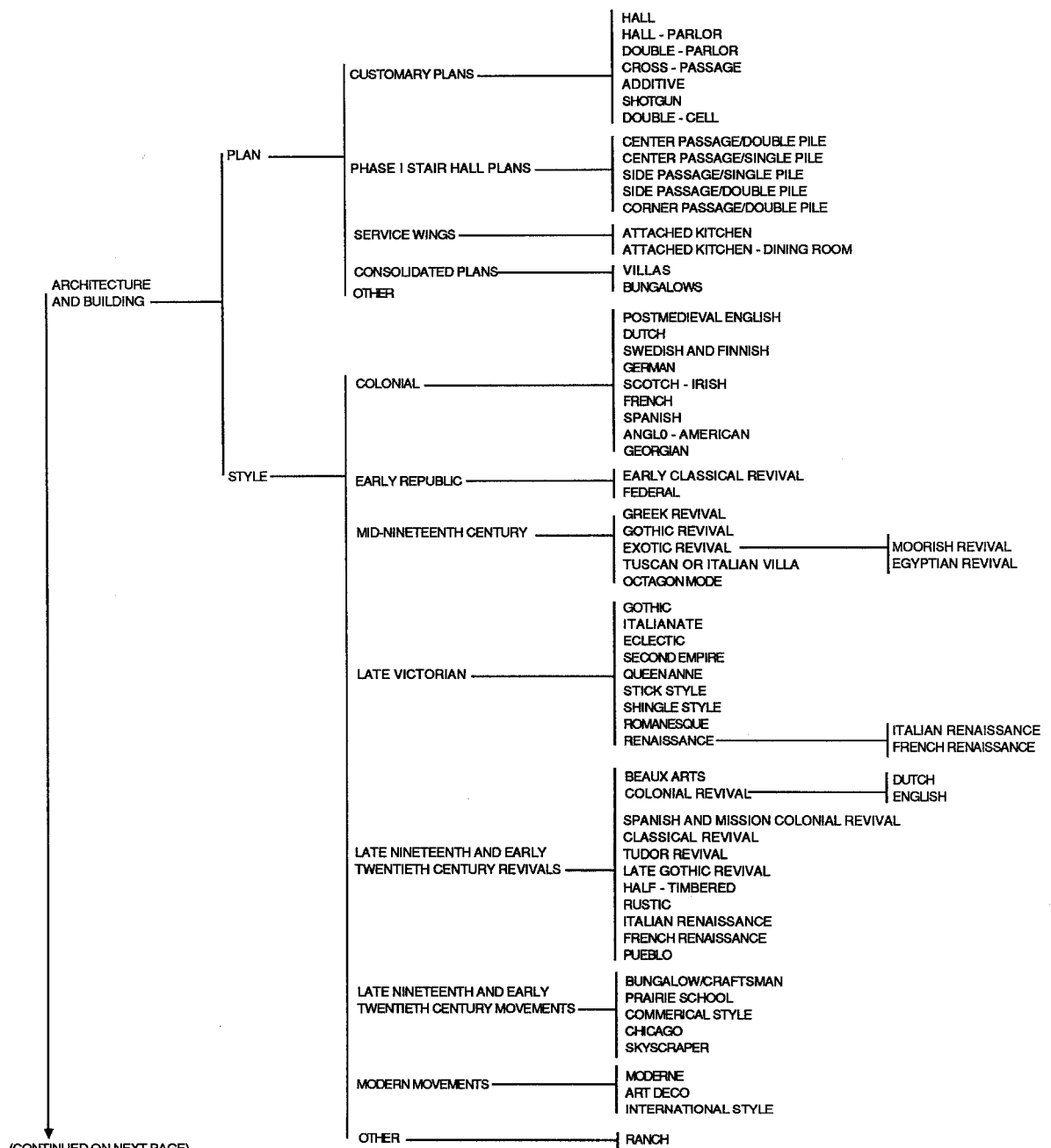
DOCTORS' OFFICES AND CLINICS
DENTISTS' OFFICES
LAWYERS' OFFICES
ARCHITECTS' STUDIOS
INSURANCE AGENTS' OFFICES
ENGINEERS' OFFICES
UNDERTAKERS' OFFICES
FUNERAL PARLORS
OTHER

10. TRANSPORTATION AND COMMUNICATION

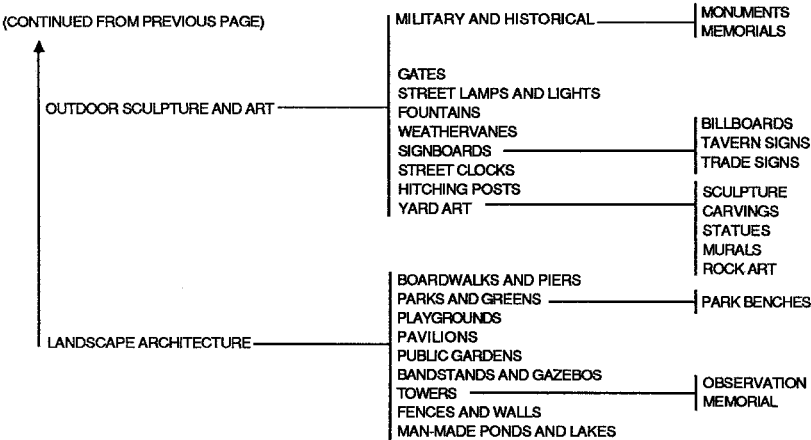
11. SETTLEMENT PATTERNS AND DEMOGRAPHIC CHANGE

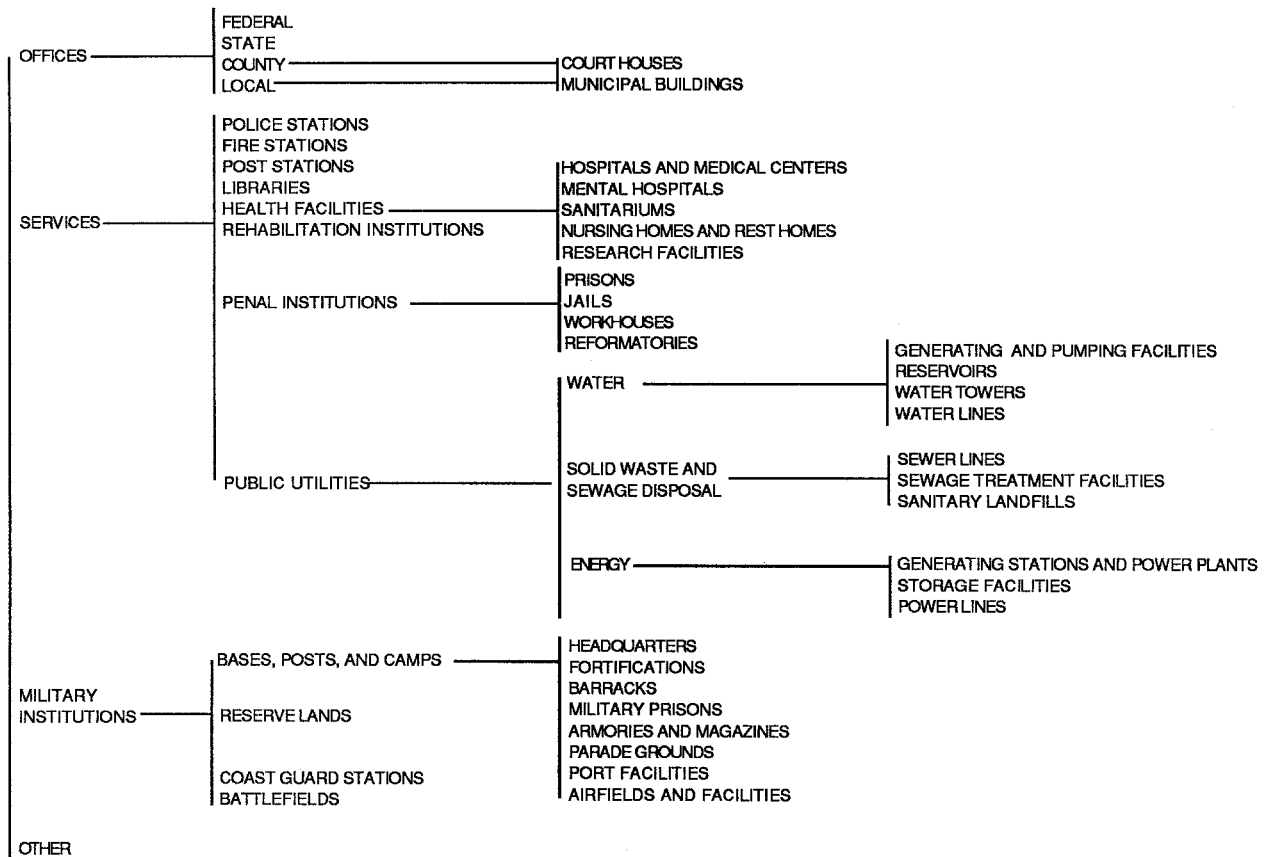


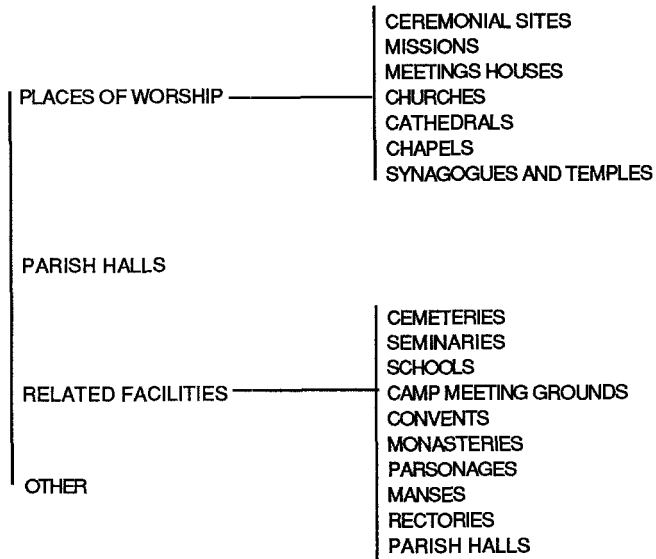
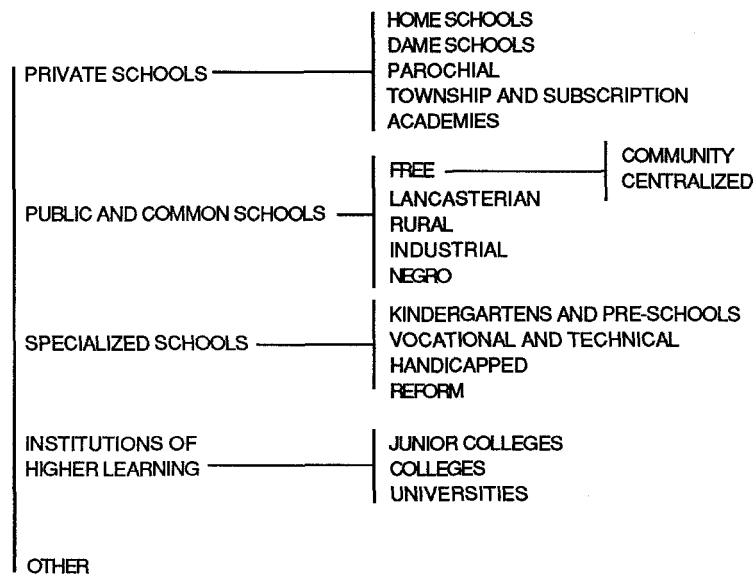
12. ARCHITECTURE, ENGINEERING, AND DECORATIVE ARTS



12. ARCHITECTURE, ENGINEERING, AND DECORATIVE ARTS



13. GOVERNMENT

14. RELIGION**15. EDUCATION**

16. COMMUNITY ORGANIZATIONS

	FAIRGROUNDS
	THEATRES
	AUDITORIUMS
	MUSIC HALLS
	OPERA HOUSES
	SYMPHONY HALLS
	MUSEUMS
	HISTORICAL SOCIETY LIBRARIES
	BOTANICAL GARDENS
	CONSERVATORIES
RECREATIONAL AND CULTURAL	ARBORETUMS
	ZOOLOGICAL GARDENS
	AQUARIUMS
	PLANETARIUMS
	ATHLETIC FIELDS
	STADIUMS
	GYMNASIUMS
	ARENAS
	TENNIS COURTS
	GOLF COURSES
	LAWN BOWLING GREENS
	SHUFFLEBOARD COURTS
	MUNICIPAL SWIMMING POOLS
	ORPHANAGES
VOLUNTEER AND	RESCUE MISSIONS
CHARITABLE	SOUP KITCHENS
	DISASTER RELIEF HEADQUARTERS
	SOCIAL CLUB BUILDINGS
PRIVATE	LITERARY CLUB BUILDINGS
	GARDEN CLUB BUILDINGS
	SPORTS CLUB BUILDINGS
	LODGE HALLS
OTHER	

17. OCCUPATIONAL ORGANIZATIONS

GRANGES
UNION HALLS
CHAMBER OF COMMERCE BUILDINGS
PROFESSIONAL ASSOCIATIONS
OFFICES AND MEETING HALLS
OTHER

18. MAJOR FAMILIES, INDIVIDUALS, AND EVENTS

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