Cultural Resources
Site Examination Report of

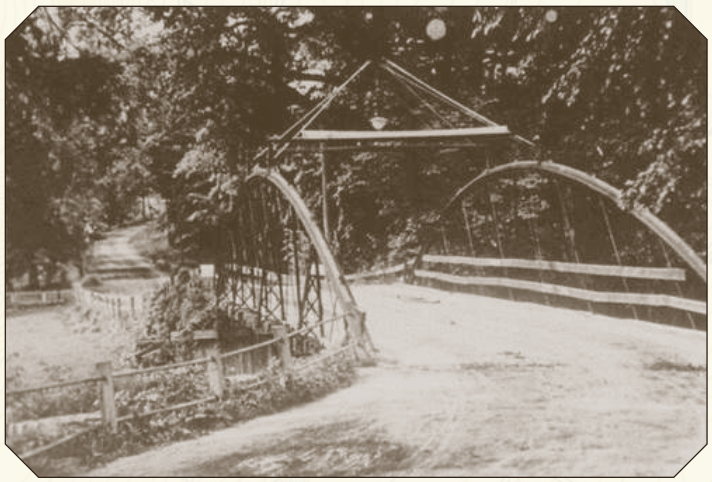
The Vroman I Site
(NYSM #10146 and 10148)

and

The Vroman II Site
(NYSM #10147)

for PIN 9125.05.121
ROUTES 30/30A INTERSECTION *and*
VROMAN CORNERS INTERSECTION

TOWN *of* SCHOHARIE,
SCHOHARIE COUNTY, NEW YORK



Prepared by:
Christina B. Rieth, Ph.D.
Principal Investigator

CULTURAL RESOURCE SURVEY PROGRAM SERIES NO. 6

CULTURAL RESOURCES
SITE EXAMINATION REPORT

of

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Vroman Corners Intersection
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Cover: Historical view of the old bridge over Fox Creek, Town of Schoharie, Schoharie County, New York (Photo courtesy of the New York State Archives, Albany, New York.) Cover design by Jill Cozzy and volume layout by Anne Moissev.

Management Summary

A. DOT PIN/BIN: PIN 9125.05.121.

B. PROJECT GOAL: Complete site examinations for the Vroman I and II sites so that information can be collected to assess the site's eligibility for the National Register of Historic Places prior to completion of NYSDOT PIN 9125.05.121. This project involves the improvement of the intersection of Routes 30A and 443 in the Town of Schoharie, Schoharie County, New York.

C. USGS QUADRANGLE MAP: 1943 7.5 Minute Schoharie, New York.

D. SITE IDENTIFICATION: The Vroman I Site (NYSM # 10146 and 10148)

SITE LOCATION AND PROJECT LIMITS: The Vroman I site is located along the southwest corner of the intersection of Route 30 and 443 approximately 20 m (64 ft) from the northern bank of Fox Creek. According to the current project workscope, the project area will be confined to the eastern and northern lawns of MDS 1. Within the current project limits, the portion of the site that will be impacted measures 573.75 m^2 (5,875 ft^2) and extends to within 2.25 m (7.2 ft) of the edge of the pavement.

CONTEXT STATEMENT: The Vroman I site is located on a small floodplain overlooking the main channel of Fox Creek. Approximately 0.8 kilometers (1/2 mile) west of the project area is the main channel of the Schoharie Creek, which is the primary waterway through the valley. The site is surrounded on the east by a small terrace and a series of rolling hills, which form the western edge of the Helderberg Mountains. Although the Schoharie Valley has produced sites dating to the Archaic, Transitional, Woodland, and Historic Periods, the limited amount of professional work in the county has not afforded archaeologists the opportunity to address larger research issues related to the prehistoric and historic occupation of the region. When compared with the adjacent Susquehanna and Mohawk Valleys, the lack of archaeological work in this region has left a large gap in our understanding of the history of eastern New York. The Vroman I site could not only provide information about the prehistoric and historic settlement of the region, but could also help to refine our understanding of the chronology and development of the Town of Schoharie.

DESCRIPTION OF SITE AND TESTING RESULTS: The Vroman I site consists of a small multi-component site. The historic component is associated with the occupation of the property as a small farmstead while the range of chipped stone tools suggests that the prehistoric deposits are related to the occupation of the property as a small camp. Five units and 8 shovel test pits were excavated within the project limits. Four units measured 1 m^2 while the fifth test unit measured 0.75 m^2. These units were excavated to an average depth of 1 m (3.2 ft) and in the majority of the units, 6 stratigraphic layers were identified. The first two layers were composed of fill that was deposited during the removal of MDS 1. Underneath was an artifact bearing Ap-horizon. The artifacts that were recovered from this horizon consist of a mixture of prehistoric and nineteenth century remains that are associated with the occupation of MDS 1 by the Snyder, Fisher, Dietz, and Cary families. The buried B-horizon produced a low density of chert flakes and expedient tools. A sterile C-horizon and glacial till layer were also encountered in Units 1, 2, and 4. One Woodland-like projectile point tip was recovered from the buried Ap-horizon. According to the current property owner, other projectile points have also been recovered from the property. Presently, 2,391 artifacts have been recovered from the site. One thousand three hundred and fifty-nine artifacts were historic, 956 were prehistoric, and 73 remain unidentified. Three pieces of fire-cracked rock and charcoal were also recovered and suggest that intact features may be located within the site limits.

SIGNIFICANCE STATEMENT:
Integrity: Although the site has been minimally impacted by plowing and the removal of MDS 1, the site contains some of its original integrity with an artifact bearing buried Ap- and B-horizon being identified at the site.

Significance of Site: Given the limited amount of professional work that has been completed within the larger Town of Schoharie, the Vroman I site has the potential to contribute to our understanding of the prehistoric and historic occupation of the Fox Creek watershed. Given the integrity and research potential of the site, the site is recommended to be eligible for the National Register of Historic Places.

POTENTIAL IMPACTS AND RECOMMENDATIONS: The portion of the Vroman I site that lies within the current project limits will be impacted during the realignment of the existing Route 443 roadway. Given the research value of this site, the site is recommended to be eligible for the National Register of Historic Places under Criterion D as a property that is likely to contribute to our understanding of the prehistory and history of the Town of Schoharie.

E. SITE IDENTIFICATION: The Vroman II Site (NYSM # 10147)

SITE LOCATION AND PROJECT LIMITS: The Vroman II site is located along the western side of the Route 30 roadway in an open field that is currently being cultivated. Within the current project limits, the portion of the site that will be impacted measures 1137.5 m^2 (11,250 ft^2) and extends to within 3.8 m (12.5 ft) of Route 30.

CONTEXT STATEMENT: Like the Vroman I site, Vroman II is located on the secondary floodplain of the Schoharie Creek approximately 0.8 km (1/2 mile) from the confluence of the Fox and Schoharie Creeks. The Schoharie Creek is the primary waterway through the valley and forms a direct corridor to the adjacent Mohawk Valley. Over 50 prehistoric sites are located within 3.2 km (2 mi) of the site with 3 prehistoric sites reported within the same field as the Vroman II site. The largest of these sites is the Westheimer site, which is located 152 m (500 ft) west of the Vroman II site. Although sites dating to the Archaic, Transitional, and Woodland Periods have been identified near the project limits, the limited amount of professional work in the region has not provided archaeologists with the opportunity to study larger research issues associated with the prehistoric occupation of the valley. When compared with the adjacent Susquehanna and Mohawk Valleys, the lack of professional work in this region has left a large gap in our understanding of the prehistoric occupation of southeastern New York. The Vroman II site could help to fill this gap by providing important information, which could help to refine our understanding of the chronology and prehistoric settlement of the region.

DESCRIPTION OF SITE AND TESTING RESULTS: Four 1 m^2 units and 13 shovel test pits were excavated within the current project limits. The units were excavated to a depth of more than 1 m (3.2 ft) below the ground surface and intersected the Ap-, A-, B-, and C-horizons. Two hundred and fifty two artifacts were recovered from the Ap-, A- and B-horizons. Seventy-seven percent of these artifacts were recovered from the Ap-horizon while the remaining 23% were recovered from the A- and B-horizons. Of the 252 artifacts that have been recovered from the site, 47 were historic, 141 were prehistoric, 37 were unidentified, and 27 were modern. The historic artifacts represent a field scatter of artifacts and are not associated with the historic occupation of the site. The prehistoric artifacts are believed to be associated with the occupation of the site as a temporary work station. No diagnostic artifacts or bifacially worked tools were recovered from the site. The majority of the flakes that were recovered consist of pieces of lithic shatter and late stage reduction flakes. No features were identified during the site examination.

SIGNIFICANCE STATEMENT:
Integrity: Although the site has been minimally impacted by plowing, the site contains some of its original integrity with artifact bearing Ap-, A-, and B-horizons being identified.

Significance of Site: Due to the paucity of artifacts recovered from the site, this site is considered to have limited research potential and is not recommended to be eligible for the National Register of Historic Places.

POTENTIAL IMPACTS AND RECOMMENDATIONS: The portion of the Vroman II site that is located within the current project limits will be impacted during the reconfiguration of the intersection of Route 30 and 443. Since the site has produced a small number of artifacts, the site is not recommended to be eligible for the National Register of Historic Places and no additional work is recommended. However, in the event that the site boundaries are changed to include deposits located beyond the site boundaries, additional work is recommended to determine if these deposits are eligible for the National Register of Historic Places.

F. AUTHOR/INSTITUTION: Christina B. Rieth, New York State Museum, Cultural Resource Survey Program, Anthropological Survey, Albany, New York.

G. SPONSOR: New York State Department of Transportation and The Federal Highway Administration.

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NYSDOT Project Overview

Staff from the Cultural Resource Survey Program at the New York State (NYS) Museum completed a site examination for the Vroman I and II sites (NYSM # 10146, 10147, and 10148) during the fall of 1998 (Figure 1). This work was completed through an interagency agreement between the New York State Department of Transportation (NYSED) and the New York State Education Department (NYSED) and conformed to guidelines and specifications outlined in the New York State Education Department's *Cultural Resource Survey Program Work Scope Specifications for Cultural Resource Investigations on New York State Department of Transportation Projects* (NYSED 1998). The results of this project were determined based upon subsurface testing and historic records of the project area. Maps and information concerning the project workscope were provided by Mr. Joseph Pollock of the New York State Department of Transportation, Region 9.

The PIN 9125.05.121 project area is located in the Town of Schoharie, Schoharie County, New York, and involved the realignment of the Route 30 and 443 intersection approximately 75 meters (240 feet) north of its current position. According to the current project workscope, the realignment of these two roadways will require that a curve in Route 443 be created so that the roadway can intersect Route 30 at a 90-degree angle. As a result of the realignment of this roadway, a small crossroad will also be constructed so that access to the covered bridge can be maintained. All of the existing roadways that are present in this area are to be removed. According to the current project workscope, NYSDOT, Region 9 indicates that deposits located within 15 meters (50 feet) of the existing pavement will be impacted.

One extant structure (Structure Q, no address #) is currently located within the PIN 9125.05.121 project limits. This post-1995 building consists of a small kiosk that is located along the southeast corner of Structure N (no address #). Although this structure is not shown on the project maps that were provided by Region 9, it is assumed that the structure will be removed during the realignment of the existing roadway.

Fieldwork for this project was completed by Aaron Gore, George Bailey, and Tracey Thomas, working under the direction of Christina Rieth. The artifacts that were recovered during the site examination were washed and catalogued by Tracey Thomas, and the maps were drawn by Sylvie Browne.

Overview of Reconnaissance Survey Results

A reconnaissance survey for Routes 30/30A Intersection and Vroman Corners Intersection was completed during the spring of 1995 (Schafer 1995). As discussed in the prehistoric and historic background sections of this report, the Vroman Corners project area was assigned a high sensitivity rating due to the large number of known archaeological sites nearby. Among the most important of the sites is the Westheimer Site (Ritchie and Funk 1973), which is located in the same field as the Vroman II Site.

Of the 113 shovel test pits (STPs) that were excavated within the project limits, 37 STPs produced prehistoric and historic remains (Figure 2). The majority of these artifacts were recovered from the plowzone at a depth of 0–26 centimeters (0–10 inches) below the ground surface. Due to the clustering of artifacts within the STPs, two archaeological sites (Vroman I and Vroman II) were identified within the project limits. Several extant structures were also determined to be eligible for the National Register of Historic Places (Schafer 1995). One of these buildings, the former Tory Tavern, is currently a candidate for the National Register of Historic Places (Hartgen 1989 as cited in Schafer 1995).

The Vroman I Site (NYSM # 10146 and 10148) is located along the southeast corner of the intersection of Route 30 and 443 (see Figure 2). This multi-component site was intersected in STPs 4, 4N, 4E, 4W, 4S, 5, 5N, 5E, 5W, 5S, 6, 7, 8, 9, 9N, 9E, 9W, and 9S. The first component consists of a small concentration of historic artifacts that are associated with the occupation of map-documented structure (MDS) 1 during the mid-/late nineteenth century. The second component consists of a scatter of prehistoric flakes and bifacially worked tools that are believed to be associated with the occupation of the property as a small residential camp. One hundred and thirty artifacts were recovered from both of these components, including the following items: utilized and non-utilized flakes, bone and shell fragments, decorated and undecorated ceramic sherds, architectural debris (e.g., brick fragments, window glass, nails, pieces of mortar, etc.) and other miscellaneous domestic remains (e.g., coal, cinder, and slag fragments, amethyst and aqua bottle glass, etc.). Although the historic artifacts that were recovered from the site could be dated to the nineteenth century, no prehistoric diagnostics were identified and the prehistoric deposits could not be assigned to a particular time period or cultural tradition.

The Vroman II Site (NYSM # 10147) is located along the north side of Route 30 and was also identified during the 1995 reconnaissance survey (Schafer 1995) (see Figure 2). The results of the reconnaissance survey suggest that the Vroman II Site consists of a small single component site located along the eastern floodplain of the Schoharie Creek. The site was intersected in STPs 19, 19N, 19S, 19E, 19W, 20, 20N, 20E, 20W, 20S, 21, 21E, 21W, 21N, 21S, 22, 23, 24, 25, 26, 27, 28, 29, 30, 30N, 30E, 30W, 30S, 31, 31N, 31S, 31E, and 31W. Twenty-four artifacts were recovered from the site.

The majority of these artifacts consisted of small chert flakes that were recovered from the first soil horizon at a depth of 0–30 centimeters (0–12 inches) below the ground surface. Like the Vroman I Site, no diagnostic artifacts were recovered during the reconnaissance survey of the Vroman II Site and the site could not be assigned to a particular time period or cultural tradition.

Given the large number of artifacts that were recovered and the integrity of the deposits, additional work was recommended for both of these properties to determine if the sites were eligible for the National Register of Historic Places.

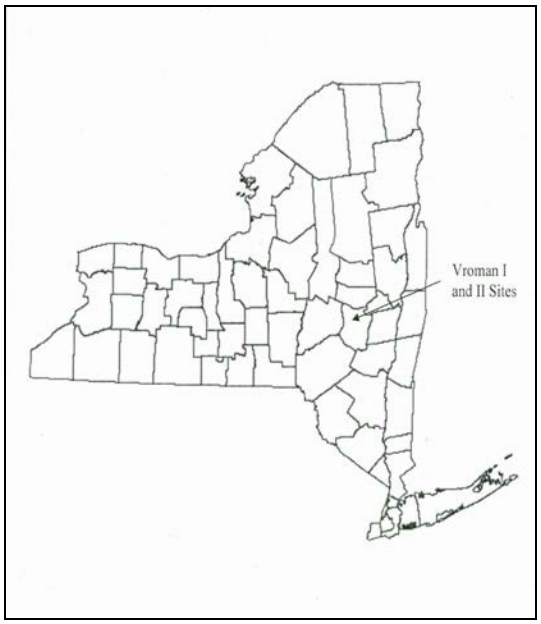


Figure 1. Map Showing the Location of the Vroman I (NYSM # 10146 and 10148) and Vroman II (NYSM # 10147) Sites within Schoharie County, New York

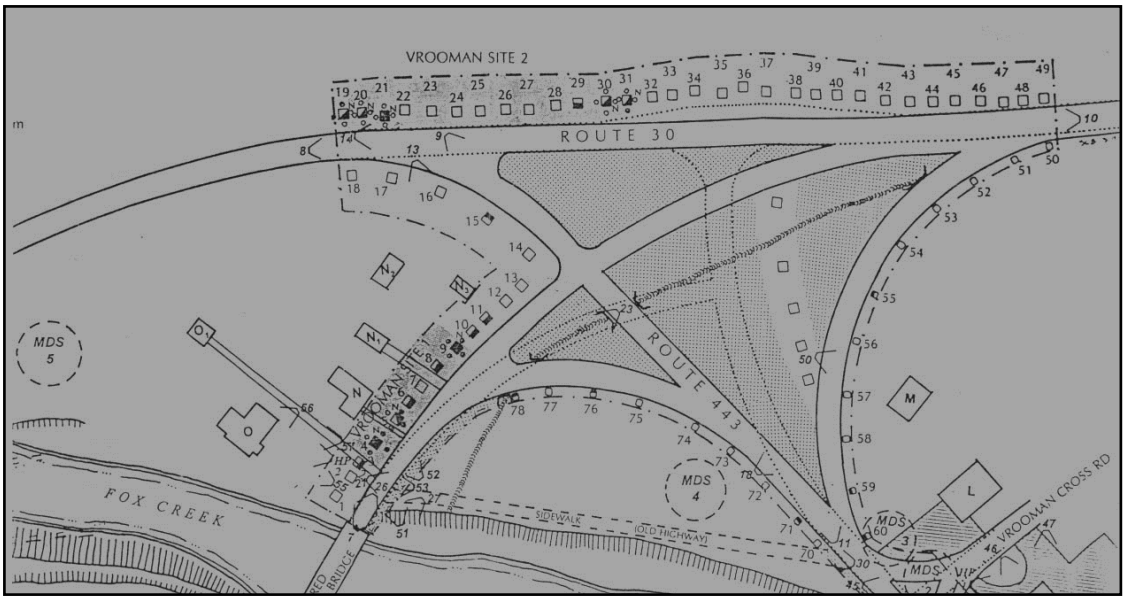


Figure 2. Map Showing the Portions of the Vroman I and II Sites that Were Tested During the 1995 Reconnaissance Survey. (Map reproduced from original project report prepared by Schafer 1995.)

Background Research

Environmental Context

Regional Context

The current project area is located along the intersection of Routes 30 and 443, in eastern Schoharie County. Schoharie County is located in eastern New York and is often characterized as part of the Appalachian Uplands Region (Van Driver 1985). The Town of Schoharie is commonly regarded as part of the Mohawk Lowlands and contains deposits that are associated with the middle/late Ordovician Schenectady formation deposits. Although these deposits are quite variable, the most common materials that are found within these deposits have been identified as graywackes, sandstones, siltstones, and shales.

The current project area contains deposits that are associated with the Barbour-Basher-Middlebury Formation. This association consists of well-drained and moderately well drained soils. The *Soil Survey of Schoharie County* (USDA 1969:2–3) indicates that these soils are medium-textured and are slightly acidic. Due to their location along major rivers and streams, these soils are subject to annual flooding. Due to the depth of these soils, they are often cultivated and/or used as animal grazing areas. Approximately 55% of the soils that comprise this association belong to the Barbour soils (USDA 1969). These soils tend to be well drained and are often deeply stratified.

The *Soil Survey of Schoharie County* (USGS 1917, 1969) indicates that most of the deposits that are found in the Town of Schoharie are well drained. Despite the fact that these deposits are well drained, flooding occurs on an annual basis. Lindner (1987 as cited in Dineen 1987:5) argues that the Schoharie Valley has experienced 16 catastrophic floods since 1784. These floods have damaged mills, canals, dams, and buildings along the creek. Flooding along these waterways may have been facilitated by nineteenth-century agricultural practices (Lindner 1987 as cited in Dineen 1987:5).

Site-specific Context

The Vroman I and II sites are located along the secondary floodplain of the Schoharie Creek near its confluence with Fox Creek. Fox Creek is located along the southern boundary of the project area. Deposits associated with the Vroman I Site can be found at an elevation of 201 meters (660 feet) above sea level, and the deposits associated with the Vroman II Site can be found at an elevation of 188 meters (620 meters) above sea level. Although the portion of the Vroman II Site that is located within the project limits is largely flat, the terrain surrounding the Vroman I Site gently slopes toward the north bank of Fox Creek.

According to the *Soil Survey of Schoharie County* (USDA 1969), the Vroman I and II sites both contain soils that are associated with the Barbour and Tioga loam series. These soils are generally found in areas that are level to slightly undulating and have a slope of 0–5%. These soils are generally found along major streams in the county. In various locations, greater concentrations of Barbour and/or Tioga soils may be found intermixed within the deposits. In general, this soil series contains a brown to dark brown friable loam topsoil or plowzone layer that extends to a depth of 15–21 centimeters (6–8 inches) below the ground surface. The subsoil usually consists of a brown to reddish-brown friable loam that extends to a depth of 61–97 centimeters (24–38 inches) below the ground surface. Underneath is a layer of dark reddish-gray or dark reddish-brown friable sand, gravel, and silt (USDA 1969). Although these soils tend to flood on an annual basis, the fertile deposits that are associated with these deposits make them well suited for cultivation and for use as pastures and animal grazing areas.

The Vroman I and II sites are separated from each other by Route 30. This roadway represents an arbitrary boundary between the Vroman I and II sites, and the relationship between these two sites has previously not been determined. Given the absence of testing prior to the construction of Route 30, it is not currently known whether deposits associated with these two sites previously extended underneath the existing roadway.

The Vroman I Site is presently occupied as a small residential property. Changes to the property between the 1995 reconnaissance survey and the 1998 site examination include the removal of one residence (MDS 1) and two extant structures (MDS 2 and 3) on the property. As discussed below, MDS 1–3 are located beyond the current project limits. Although the northern half of the Vroman II Site continues to be cultivated, the eastern half of the site has previously been impacted by road construction and berm. As discussed in the Site Boundary section of this report, the area within 4 meters (12.5 feet) of the edge of the pavement could not be excavated due to a considerable amount of road berm and fill along the western shoulder of Route 30.

Prehistoric Context

General Background

The prehistory of the PIN 9125.05.121 project area and the Town of Schoharie spans the last 12,000 years and resembles that of eastern New York and New England. For the purpose of this discussion, the Late Archaic (10,000–4000 years before present [B.P.]), Transitional (4000–3000 B.P), and Woodland (3000–400 B.P.) time periods will be discussed since deposits dating to these three time periods are most likely to be identified within the PIN 9125.05.121 project area.

According to Ritchie and Funk (1973), the Archaic period (c. 10,000–4000 B.P.) can be defined by the gradual environmental warming that occurred following the receding of the glaciers at the end of the Wisconsin period. Following the warming of the environment and the receding of the glaciers at the end of the Early and Middle Archaic periods (c. 10,000–6000 B.P.), Late Archaic groups (c. 6000–4000 B.P.) began exploiting a new variety of floral and faunal species, including white-tailed deer, turkey, and passenger pigeon. Charred botanical remains indicate that butternuts, acorn, berries, and a variety of aquatic resources were exploited by the Late Archaic occupants of the Northeast. The tool kits that were utilized by these Late Archaic groups are quite diverse and include a diverse array of items, including small stemmed projectile points (Ritchie 1994), bifacially worked tools (e.g., utilized flakes, scrapers, drills, etc.), ground or pecked stone tools (e.g., celts, beveled adzes, mortars, pestles, anvilstones, pitted stones, etc.), as well as other items manufactured from bone and shell. According to Ritchie and Funk (1973), the Late Archaic occupants of eastern New York were highly mobile and occupied a variety of settlements throughout the year. Small camps, generally located along small lakes, the shallow portions of large lakes, and small rivers and streams, appear to have been occupied during the spring and summer months, and smaller backcountry habitations were often occupied during the winter.

By 4000 B.P., these Archaic groups were replaced by Transitional groups (Ritchie 1994). Like their Late Archaic predecessors, these groups practiced a mixed hunter/gatherer/fishing subsistence strategy that relied largely upon the occupation of small seasonal camps along local waterways. According to Ritchie and Funk (1973:72–73), the Transitional occupants of New York do not appear to have had a diverse settlement system. Instead, most of their occupations were established along primary streams and/or near the shallow portions of small lakes. Presently, only a handful of Transitional period sites have been located in backcountry areas away from sizeable waterways (Ritchie and Funk 1973). Transitional period tool kits often include the following items: large broad-stemmed Susquehanna, Perkiomen, and Orient Fishtail projectile points, soapstone vessel fragments, small quantities of Vinette I pottery, notched netsinkers, and a variety of chipped and ground stone tools.

Sites dating to the Early, Middle, and Late Woodland periods (c. 3000–400 B.P.) have also been identified in the Schoharie Valley. The Early Woodland residents of eastern New York (c. 3000–2000 B.P.) are characterized by their participation in a cultural tradition that resembled the Adena culture of Ohio. According to Ritchie and Funk (1973:96–98), the Early Woodland occupants of New York rarely occupied backcountry settlements, preferring instead to establish temporary settlements along the shores of large lakes and streams. Quite often these settlements were constructed along the same topographic features as Late Archaic sites. Terminal Early/Middle Woodland sites also contain evidence that indicates the occupants participated in a regional and/or intra-regional burial ceremonial complex in which the dead were cremated and interred in mounds or small stone lined graves (Ritchie and Funk 1973). The material culture of these groups is much more diverse than that of the Archaic and Transitional cultures and includes Vinette I pottery, copper ornaments, ground stone tools and ornaments (including birdstones, tubular smoking pipes, gorgets, and boatstones), and a variety of chipped stone tools (including Meadowood and notched Adena points, drills, scrapers, ovate knives, etc.).

By the Middle Woodland period, the occupants of eastern New York had developed a more complex set of behaviors that not only included the exploitation of a wide variety of wild plants (e.g., chenopodium, sunflower, tobacco) but, in some areas, included the participation in long-distance trade networks and complex burial ceremonialism practices that resembled those of the Hopewell culture (Ritchie 1994). Artifacts associated with these groups include small Jack's Reef and Fox Creek projectile points, cordmarked and stamped ceramic containers, and platform pipes, as well as an assortment of ground/pecked and chipped stone tools. Some sites also contain copper and shell ornaments (Ritchie and Funk 1973).

The Schoharie Valley was occupied by the Mohawk Iroquois during the Late Woodland period (c. 1000 to 400 B.P.). According to Richie (1992), these groups resided in permanent or semi-permanent palisaded villages along Schoharie Creek. Unlike the Early and Middle Woodland occupants of the Schoharie Valley, the Late Woodland occupants of the region subsisted on a variety of wild and domesticated plants, small and large game animals, as well as a variety of aquatic and aviary resources. Other

corresponding changes also appear to have occurred, including an increase in the number and types of material remains that were utilized and an increase in the size of these sites. Parker (1922) indicates that several Late Woodland villages and burial sites are located within 3.2 kilometers (2 miles) of the current project area.

The site files at the NYS Museum and the NYS Office of Parks, Recreation, and Historic Preservation list 59 archaeological sites within 3.2 kilometers (2 miles) of the project area. Most of these sites are located along the eastern floodplain of the Schoharie Creek and have been identified as "surface finds" in plowed fields. Consequently, we presently do not have a good understanding of the nature and density of stratified deposits in this portion of Schoharie County. Although none of these 59 sites can conclusively be identified as part of the Vroman I and II sites, several sites are shown along the current site limits, including Sites NYSM # 8121 and NYSM # 9281. Both of these sites and their relationship to the current project area are described in more detail below.

Despite the large number of Archaic, Transitional, and Woodland sites that have been identified near the current project area (see Schafer 1995 for more complete discussion), only the Westheimer Site has been extensively excavated (Ritchie and Funk 1973). The site files at the NYS Museum and Office of Parks, Recreation, and Historic Preservation indicate that deposits associated with the Westheimer Site are located approximately 152 meters (500 feet) west of the Vroman II Site. According to Ritchie and Funk (1973), the site contains four distinct occupation layers. Occupation 1 consists of a scatter of Early-Middle Owasco material, including rim and body sherds from an Owasco Corded Horizontal vessel, Levanna projectile points, bifacially worked tools (e.g., perforators, scrapers, a drill, utilized flakes, etc.), netsinkers, a pebble hammer, and two anvilstones. Occupation 2 dates to the Middle Woodland period and produced artifacts that are consistent with the use of the site as a short-term occupation. Excavation of this occupation level produced 15 features (mainly postmolds and small hearths) and several hundred artifacts. Included among these artifacts were corded, dentate, and incised vessel sherds, lanceolate, stemmed, and side-notched points, large Patalas blades, knives, an adze, hammerstones, and several anvilstones. Occupation 3 was located underneath and could not be conclusively dated to a particular time period. Although Occupation 3 could not be conclusively assigned to a particular time period, Ritchie and Funk (1973:145) suggest that these artifacts are probably related to the Middle Woodland deposits identified in Occupation 2. Artifacts recovered from this occupation level include thumbnail scrapers, hammerstones, small trianguloid bifaces, and six biface blanks. Several prehistoric sherds were also recovered but could not be assigned to a particular time period. Late Archaic artifacts were also recovered from the site and comprise the fourth occupation layer.

Site-specific Background

The area surrounding the Vroman I and II sites was originally assigned a high prehistoric sensitivity rating due to the large number of archaeological sites that are located within 3.2 kilometers (2 miles) of the PIN 9125.05.121 project area. As indicated in the reconnaissance survey report (Schafer 1995), most of these sites have been identified by local collectors and consist of small scatters of prehistoric remains that were identified on the ground surface.

One of these sites is described as being adjacent to the Vroman I Site. According to Parker (1922), a small "burial site and village" is located on the Vroman property. Although Parker (1922:693) does not provide a list of the artifacts that were recovered from the site, he does indicate that the site is located near a Revolutionary-period stockade. As discussed in the Historic Background section of this report, this stockade probably refers to the Revolutionary War period stockade that surrounded the Old Stone Fort.

The 1995 reconnaissance survey of the Vroman I site produced 130 artifacts (Schafer 1995). Thirty-six artifacts (28% of the artifact assemblage) were identified as prehistoric. Included among these remains were broken, primary/secondary, bifacial thinning, and tertiary flakes, pieces of lithic shatter, a small broken biface, utilized flakes, and pieces of unmodified field chert. All of these artifacts were recovered from the Ap-horizon at a depth of approximately 0–30 centimeters (0–12 inches) below the ground surface. None of these artifacts possessed diagnostic attributes, and the site can not presently be assigned to a specific time period or cultural tradition.

The Vroman II Site is also surrounded by several prehistoric archaeological sites. NYSM # 9281 is located approximately 30 meters (100 feet) south of the current project limits. This site is described as being a small surface scatter of artifacts that were recovered from the top of the plowzone. Although none of the artifacts from this site are contained in the collections of the New York State Museum, the description of the site indicates that several projectile points were recovered, including one Wading River point and a small stemmed projectile point (New York State Museum Site Files, Albany). Based upon the description of the artifacts that were recovered from the site, the site is considered to date to the Late Archaic period. NYSM # 8121 is located just west of the Vroman II Site and may be associated with the

prehistoric deposits that were recovered from the Westheimer Site. According to the site files at the New York State Museum, the site minimally consists of a small surface scatter. An unclear footnote in the site files suggests that additional work may have also been completed at the site. The artifacts that were recovered suggest that the site may be multi-component with projectile points dating to the Late Archaic and the Middle Woodland periods.

The 1995 reconnaissance survey of the Vroman II Site produced 24 artifacts (Schafer 1995). Approximately 63% of these artifacts were identified as prehistoric and included broken flakes, primary/secondary flakes, tertiary flakes, and pieces of lithic shatter. Several pieces of unmodified stone (or field chert) were also recovered and may have been brought to the project area by the prehistoric occupants of the site. Most of these artifacts were recovered from the A-horizon and were manufactured from gray Onondaga chert that is locally available in the Schoharie Valley.

Both of these sites are located along a prehistoric footpath (the present Route 443 roadway) that followed the north bank of Fox Creek over the Helderberg Mountains into western Albany County (Simms 1845). While this footpath undoubtedly helped to facilitate transportation within Schoharie County, the footpath was probably also an important transportation route between the Hudson and Schoharie valleys. As discussed in the Archaeological Results section of this report, this footpath may have helped to facilitate the acquisition of lithic raw materials from other parts of New York.

Historic Context

General Background

The general history of the Vroman Corners project area resembles that of southeastern New York and the larger Schoharie County. During the 1600s, the Schoharie Valley was largely occupied by groups belonging to the Mohawk Iroquois. According to Hendrix and Hendrix (1988), many of these villages were located approximately 8 kilometers (5 miles) south of the project area along the base of a hill they called Onistegrawa or "Corn Mountain." This area is presently known as "Vroman's Nose" and is surrounded by a series of flat fields that may have been regularly cultivated.

The Palatines settled in the Schoharie Valley during the first half of the eighteenth century. Following their arrival in New York, the Palatines were relocated to Dutchess and Ulster counties where they were contracted by the Royal Navy to make turpentine, pitch, and tar. Unhappy with their living arrangements, a small group of refugees moved to the Schoharie Valley. According to Schafer (1995:24), these groups traveled along the Native American footpath that followed Fox Creek and eventually settled along the north side of Fox Creek near its confluence with the Schoharie Creek. After settling in the area, these groups established a small community near the current PIN 9125.05.121 project area. This community was known locally as "Fox's dorf."

Adam Vroman purchased 400 acres of land from the Indian chief Krighondona and other Schoharie Indians for 110 gallons of rum and a few blankets in 1711. By 1714, Adam Vroman had obtained a royal title for 1,100 acres of land in the valley. While his ownership of the property was continuously marked by disputes over the boundaries of the land purchase, his most difficult challenge occurred when he tried to force the Palatines to pay rent or purchase the land. The relationship between the Palatines and Vroman soon turned violent and a sheriff was sent from Albany to mediate between the two parties. According to Hendrix and Hendrix (1988:15),

> When the sheriff began to meddle with the first man, a mob of women rose, of which Madeline Zee was a captain. [the sheriff] was knocked down and dragged through every mud-pool in the Street; then hung on a rail and carried four miles, thrown down on a bridge, where the captain took a stake out of the fence, and struck him in the side, that she broke two of his ribs and lost one eye; then…she let him lie and went off (Brown 1823 [in Hendrix and Hendrix 1988:15]).

By the 1720s, the Palatines had legally purchased a small tract of land from Vroman, ending the land dispute between the two parties.

The Schoharie Valley was populated by farmers from New England and southern New York by the mid-eighteenth century. These farmers, who realized the agricultural potential of the region, soon turned the Schoharie Valley into one of the leading agricultural areas in the state. While many different items were being grown, wheat soon became the leading crop in the valley. According to Hendrix and Hendrix (1988), the Schoharie Valley produced so much wheat that by the Revolutionary War, this region was known as the "Bread Basket of New York."

In addition to farming, the Schoharie Valley contained a large number of gristmills. The earliest of these gristmills was constructed along Fox Creek during the first quarter of the eighteenth century. While Hendrix and Hendrix (1988) do not provide information concerning the ownership of this mill, a brief description in Schafer (1995) indicates that the mill was located approximately 2.4 kilometers (1.5 miles) from the current project area. In 1760, Johannes Eckerson constructed another gristmill along Fox

Creek. As discussed below, this mill is located approximately 60 meters (200 feet) north of the Vroman I Site and was owned by Colonel Peter Vroman following the Revolutionary War.

The occupants of the Schoharie Valley were directly involved in the Revolutionary War, as many of the farmsteads in the valley were destroyed. To defend themselves, the residents of Schoharie County established three forts along Schoharie Creek. The Upper Fort was located near the headwaters of the creek at Breakabean, and the Middle Fort was located on the Kniskern farmstead near Central Bridge. The Lower Fort was located on the south side of Fox Creek opposite the Vroman I Site. According to Noyes (1964), the fort was surrounded by a single palisade that extended to the south bank of Fox Creek.

Although the occupants of the Vroman Corners project area were often the victims of British raids, one of these raids is considered to be more important than others. In 1780, the Lower Fort was attacked by both British and Native American troops acting under the direction of the British Colonel John Johnson and the Mohawk Chief Joseph Brant. Accounts of this raid indicate that the Lower Fort was attacked with rifles and light artillery. Maps of the raid depict the British army traveling through (and possibly camping along) the floodplain that surrounds the Vroman I and Vroman II sites. Although historical accounts indicate that the fort was not destroyed, artillery fire appears to have heavily damaged the palisade that surrounded the fort. Following this raid, the residence of one of the Tory leaders, George Mann, was attacked by the Colonial militia in retaliation for the raid. As indicated in the reconnaissance survey report (Schafer 1995), Mann's residence is located within the larger PIN 9125.05.121 project area and was tested. No artifacts were recovered from this property, suggesting that the property may have been impacted during the nineteenth and/or twentieth century.

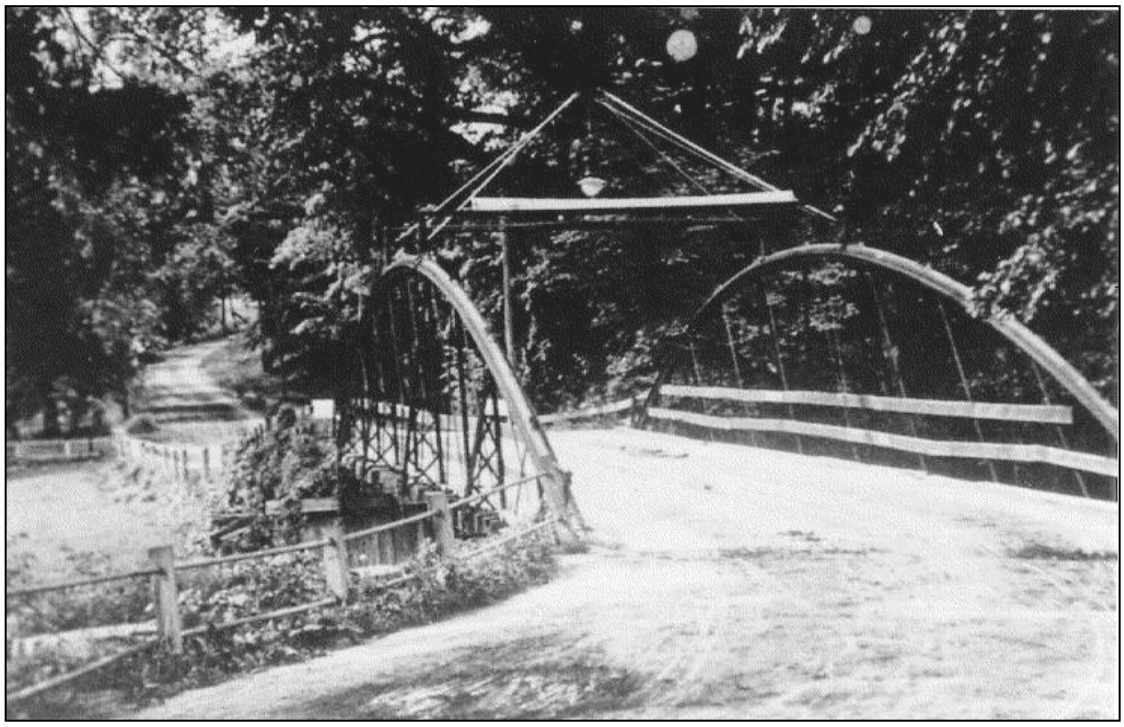
The Town of Schoharie was officially formed in 1788, and shortly thereafter the population of the county increased as farmers once again immigrated into the region from New England. The immigration of these groups into the region was largely facilitated by the construction of turnpikes and plank roads through the county. One of these roads is the Albany and Schenectady Highway. This roadway extends in a northeast direction through the project area crossing Fox Creek near the Vroman I Site and the existing pedestrian bridge, which replaced an earlier bridge (Photographs 1 and 2). Construction of this roadway was important, and several businesses were soon established along the roadway. Included among these businesses were a blacksmith shop, a shoe shop, a store, and several taverns (Beers 1866; Roscoe 1882:364–365). During the mid-nineteenth century, a small tollgate was also constructed along the northern boundary of the project area. As discussed in Schafer (1995), the area surrounding the tollgate and the blacksmith shop were tested during the reconnaissance survey but failed to produce any artifacts that were associated with the use of the structures.

The Albany and Susquehanna Railroad was constructed through Schoharie County in 1853 (Roscoe 1882). Construction of the railroad not only increased travel through the region but also provided a more efficient means of transporting dairy products and produce to markets in eastern New York and New England. Following the Civil War, a north-south running track was created and connected the main track with smaller villages in Schoharie County. This small track, known locally as the Schoharie Valley Railroad, was constructed in the same field as the Vroman II Site and made stops in the neighboring villages of Central Bridge and Schoharie Junction. By the turn of the century, a shift in the population and economic base of the Town of Schoharie along with the increased use of the automobile led to the abandonment of the Schoharie Valley Railroad.

During the first half of the twentieth century, the economic base of the community shifted from being primarily concentrated in agriculture to being heavily reliant on local lime and cement quarrying. Presently, both of these industries play an important role in the economic development of the county and constitute the primary employers in the Town of Schoharie (Hendrix and Hendrix 1988:100–102 as cited in Schafer 1995:30–31; Noyes 1964:80–113).

Site-specific Background

The historic contexts for both the Vroman I and II sites are largely associated with the agricultural use of the properties during the eighteenth and nineteenth centuries. The Vroman I site consists of a small historic farmstead located along Fox Creek. As seen in Table 1, the property appears to have been occupied by two different families during the nineteenth centuries. The earliest occupant of the property was apparently Johannes Eckerson, a local farmer who constructed two gristmills along Fox Creek in 1760 (Hendrix and Hendrix 1988; Vrooman 1942:4). These gristmills were purchased by the Vroman family during the late eighteenth century and were retained by the Vroman family during the first half of the nineteenth century. The size of Eckerson's original holdings is not currently known; however, sometime between 1760 and 1780, Eckerson probably sold the northern half of the property to Captain Jacob Snyder.



Photograph 1. Looking South Across the Bridge over Fox Creek. Construction of this bridge allowed travelers to cross Fox Creek near MDS 1. During the first half of the twentieth century, this bridge was removed and replaced with the wooden pedestrian bridge shown in Photograph 2. (Photograph reproduced from original contained in the New York State Archives, Albany.)

Photograph 2. Looking Southeast Toward the Wooden Pedestrian Bridge Located near the Southern Boundary of the Vroman I Site. This bridge is located outside the current project limits and will not be impacted during the realignment of the Route 443 and Route 30 intersection.

The Vroman I Site was owned by Captain Jacob Snyder at the end of the eighteenth century (Roscoe 1882; Schoharie County Land Deed 1832). According to Roscoe (1882), Jacob Snyder was a local farmer (Table 1). Although Snyder appears to have owned the property that the Vroman I Site is located on, there is little or no evidence to indicate that he constructed MDS 1. Jacob Snyder died prior to 1790, leaving his possessions and his property to his eldest son, Peter M. Snyder.

Peter M. Snyder owned the Vroman I Site between 1790 and 1832 (Schoharie County Land Deed 1828). Based upon the census records (as well as the artifacts recovered from the site), Snyder does not appear to have regularly occupied the property until the first quarter of the nineteenth century. According to Roscoe (1882), Peter Snyder constructed a small residence on the property (MDS 1) sometime between 1810 and 1817. At the time of Snyder's occupation of the property, his household consisted of several family members, including two males aged under 10, one female under 10, one female aged 26–45, and one female aged 45+. In addition, the family appears to have employed at least one servant. The composition of the Snyder household apparently changed between 1810 and 1820 with several new individuals added.

Between 1828 and 1832, the size of the Snyder property may have fluctuated as a result of continuous boundary disputes between Snyder and his neighbor Adam Vroman. This dispute was partially settled following a land transaction between the two individuals in 1828 (Schoharie County Land Deed 1828). According to this land deed, the houselot along Fox Creek would be owned by Adam Vroman and would include a parcel of land extending along Fox Creek toward Schoharie Creek. Peter Snyder would own a long rectangular parcel north of Vroman's property. This parcel would not be located along Fox Creek but would instead extend toward the east bank of Schoharie Creek.

Peter Snyder sold the property to a local farmer named Jacob Fisher in 1832 (Schoharie County Land Deed 1832). At the time of the land sale, the property not only contained the residence that was built by Snyder but may have also included one or more extant buildings. At the time of the land purchase, the size of the farmstead was quite large and measured 23.24 acres in size. Federal census records suggest that the Fischer household was quite large and not only included himself but also his wife Sophia, their children, and several relatives (Federal Census 1840). As seen in Table 1, at least 12 people resided in the Fisher residence. Six of these individuals are under age 20 and are probably Jacob and Sophia Fisher's children. The female aged 70–80 is probably Jacob Fisher's mother or mother-in-law, and the female aged 30–40 is probably Jacob Fisher's wife, Sophia. The other female aged 20–30 is probably a related family member or household servant. Although these historical records provide little information about the economic status of the Fisher family, the artifacts recovered during the site examination suggest that the occupants of the property associated themselves with a growing middle class (see Archaeological Results section).

In 1845, Jacob Fisher sold the property to Lorenzo and Jerusha Huff for $1,510 (Schoharie County Land Deed 1845). At the time of this land transaction, the property continued to measure 23.24 acres in size. South of the property were the grist and sawmills belonging to the Vroman family. Given the limited occupation of the property, Lorenzo Huff does not appear on the 1845 or the 1850 census records and no information is available concerning the composition of his household. Shortly after its purchase (c. 1848), the property was sold to Paul and Maria Haverly.

The property was owned by Paul and Maria Haverly between 1848 and 1852 (Schoharie County Land Deed 1848). According to the land deed, the 23.24-acre property was purchased from Lorenzo Huff for $1,850 (Schoharie County Land Deed 1848). The land deed indicates that at the time of purchase, the property contained the original Snyder residence (MDS 1) and at least one other building. The 1850 *Federal Census of Schoharie County* (Federal Census 1850) indicates that Paul Haverly was employed as a farmer. Census records indicate that Haverly's household was composed of his wife Maria (aged 30) and their three children. One of the children (Eve Haverly) was of school age and the other two children (Catharine and Jacob Haverly) were too young to have attended school. As seen in Table 1, the Haverly family appears to have lived a comfortable lifestyle and would have probably been associated with the middle class in Schoharie County. The real estate value of the property was $1,800 and was comparable with other properties in the Town of Schoharie (Federal Census 1850).

Jacob Dietz purchased the property from Paul and Maria Haverly in 1852 for $2,600 (Schoharie County Land Deed 1853). At the time of the land transaction, the property measured 23.24 acres in size. The property was bordered on the south by the farmstead and grist/sawmill of B. Griggs and on the east by the farmstead of Roarckich. As shown on the 1856 *Map of Schoharie County, New York* (Wenig and Lorey 1856) and the *1866 New Topographic Atlas of Schoharie County, New York* (Beers 1866), this property was located across from the Fox Creek bridge and was located on the north side of the roadway leading to Albany and Schenectady counties.

Table 1. Summary of the Occupants of the Vroman I Site (NYSM # 10146 and 10148) Between 1780 and 1900.

Census (Federal)	Census (NYS)	Name of Head of Household (age)	Occupation	Household Members (ages)	Real Estate Value	Personal Property Value
c. 1780	---	Captain Jacob Snyder (?)*	Unknown	Unnamed wife	---	---
1790	---	Peter M. Snyder (?)*	Unknown	---	---	---
1800	---	Peter M. Snyder	Unknown	1 male under 10 1 male aged 10–16 1 male aged 16–26 1 female aged 10–16 1 female aged 16–26	---	---
1810	---	Peter M. Snyder*	Unknown	2 males under 10 1 male aged 26–45 1 female under 10 1 female aged 26–45 1 female aged 45+ 1 unidentified slave	---	---
1820	---	Peter M. Snyder	Unknown	1 male aged 16–18 2 males over 26 1 male over 45 1 female under 10 1 female aged 10–16 1 female aged 26–45 1 female over 45	---	---
---	1825	Peter M. Snyder*	---	---	---	---
1830	---	Peter M. Snyder/Peter Vroman	---	---	---	---
1840	---	Jacob Fisher	Farmer?	Sophia Fisher[1] 1 male under 5 1 male aged 10–15 1 male aged 15–20 1 male aged 30–40 1 female under 5 1 female aged 5–10 2 females aged 10-15 1 female aged 15–20 1 female aged 20–30 1 female aged 30–40 1 female aged 70–80	---	---
---	1845	Jacob Fisher*	Farmer	Sophia Fisher[1]	---	---
1850	---	Paul Haverly (33)	Farmer	Maria Haverly (30)[1] Eve E. Haverly (8)[2] Catherine Haverly (5)[2] Jacob Haverly (2)[2]	$1800	---
---	1855	Jacob H. Dietz*	Farmer	Sarah E. Dietz[1]		
1860	---	Jacob H. Dietz (38)	Farmer	Sarah E. Dietz (28)[1] George Dietz (14)[2] Amelia Dietz (9)[2] Elizabeth Dietz (4)[2] Marshall Rich (16)[2]	---	---
---	1865	Jacob H. Dietz	Farmer	Sarah E. Dietz[1]		
1870	---	Adam D. Hager (83)	Farmer	Catherine Hager (67)[1] Henry Cady (22)[5]	$4000	$1000

Table 1. Summary of the Occupants of the Vroman I Site (NYSM # 10146 and 10148) between 1780 and 1900 (continued).

Census (Federal)	Census (NYS)	Name of Head of Household (age)	Occupation	Household Members (ages)	Real Estate Value	Personal Property Value
---	1875	Henry Cady (27)	Farmer	Catherine Cady (25)[1] Henry Cady (1)[2] Celia Cady (1)[2] Catharine Hagar (72)[6]	---	$800
1880	---	Henry Cady	Farmer	Catherine Cady (31)[1] Harry H. Cady (6)[2] Celia M. Cady (6)[2] Catherine Hager (77)[4]	---	---
---	1885	Charles B. Stevens*		Ida[1]		
1900	---	Charles B. Stevens*		Ida[1]		

1-Spouse of reported head of household, 2-Son or daughter of head of household, 3-Farm laborer, 4-Great Aunt or Uncle of head of household, 5-Niece of nephew of head of household, 6-mother or mother-in-law of head of household.
*Information gathered from land deeds and not census information. **Information taken from Roscoe (1882) and not census records.

The *Federal Census of Schoharie County* (Federal Census 1850) indicates that Jacob Dietz was employed as a farmer. His household was composed of his wife Sarah E. Dietz (then aged 28) and their three children aged 4–14. According to the 1860 *Federal Census of Schoharie County*, the two eldest children (George and Amelia) were attending school. The youngest child (Elizabeth) was not attending school. The federal census records also indicate that all of the family members (with the exception of Elizabeth Dietz) were literate. The Dietz family appear to have been financially well off and were able to employ at least one farm laborer. According to the *Federal Census of Schoharie County* (Federal Census 1850), a farm laborer, Marshall Rich, also occupied the residence. At the time of his employment, Marshall Rich was 16 years old and was capable of reading and writing.

Dietz retained the property until 1866, when he sold the residence and 23 acres of land to Adam Hagar for $4,000. Adam Hagar (then aged 83) is listed on the 1870 *Federal Census of Schoharie County* (Federal Census 1870) as a farmer. At the time of the census, Adam Hagar was fairly well off with a real estate value of $4,000 and a personal estate value of $1,000. At the time of the 1870 Federal Census, the Hager household was not only comprised of Adam's wife Catherine (then aged 67) but also included a relative Henry Cady (then aged 22). According to the census records, Henry Cady worked as a farm laborer. The relationship between Henry Cady and Adam Hagar remains in question. According to the 1875 *New York State Census of Schoharie County* (NYS Census 1875), Henry Cady is Catherine Hagar's son, but on the later 1880 *Federal Census of Schoharie County* (Federal Census 1880), Henry Cady is listed as Catherine Hagar's nephew.

Sometime between 1870 and 1875, Adam Hagar died and the property was inherited by Henry Cady (Schoharie County Land Deed 1855). According to the 1875 *New York State Census of Schoharie County* (New York State Census) and the 1880 *Federal Census of Schoharie County* (Federal Census 1880), Henry Cady was employed as a farmer. Cady's household was composed of his wife Catherine, son Harry Cady (then aged 6), his daughter Celia (also aged 6), and Catherine Hager (then aged 77). The 1880 *Federal Census of Schoharie County, New York* (Federal Census 1880) indicates that Catherine Cady was a housekeeper. Both of the Cady children were attending school and were literate.

Henry and Catherine Cady sold the property to Charles B. and Ida Stevens in 1883 for $4,000 (Schoharie County Land Deed 1883). Charles B. Stevens also owned the Vroman Residence (Structure O, no address #) along Fox Creek. Charles Stevens is not listed on the 1890, 1892, or 1900 census, suggesting that Stevens did not reside in MDS 1 but rather leased the property to one or more tenants.

During the twentieth century, the Vroman Site continued to be occupied as a small farmstead in the Town of Schoharie. Through 1908, the property was owned by Charles B. and Ida Stevens before being sold to Nancy C. Smith in 1908. Between 1908 and 1938, the property changed hands several times, with John Wilbur occupying the property from 1916 to 1923, Lloyd and Mary Guernsey occupying the property from 1923 to 1926, and Cary and Elizabeth Mattice owning the property from 1926 to 1938 (Schoharie County Land Deed 1916, 1923, 1926). Between 1938 and 1959, the property was owned by Fred and Evelyn Westfall, who maintained the property as a small farm (Schoharie Land Deed 1938). As shown on the 1954 *New York State Department of Transportation Road Construction Map* (NYSDOT 1954), several farm buildings surrounded MDS 1 (Photographs 3 and 4). Included among these buildings are MDS 2 (a large

barn) and MDS 3 (a smaller storage shed). In 1959, Arthur Jenner purchased the property for $10 and probably also occupied the property as a small rural farmstead (Schoharie County Land Deed 1959). Following the death of Arthur Jenner in 1997, the property was purchased by the current owner, Mildred Vroman (Schoharie County Land Deed 1997). Modifications to the property between 1997 and 1999 included the removal of MDS 1, 2, and 3 and the construction of a small kiosk (Structure Q, no address #) along the northern boundary of the site.

The area surrounding the Vroman II Site has been used as an agricultural area, and none of the nineteenth- and early twentieth-century maps showing buildings within the project limits. The earliest historical reference to the project area is contained in the 1780 *Erskine Map of Schoharie County, New York* (Erskine 1780). According to this map, the field that contains the Vroman Site is intersected by a small trail that led to the nearby village of Cherry Valley and the nearby Cobels Kill Settlement (Erskine 1780). Composite maps drawn during the nineteenth century suggest that the field adjacent to the Vroman II Site was occupied by the British and Mohawk Indians during their raid on the Lower Fort in 1780.

The Vroman II Site was not extensively occupied during the mid-/late nineteenth and twentieth centuries. According to the 1856 *Map of Schoharie County, New York* and the 1866 *New Topographic Atlas of Schoharie County, New York*, the area surrounding the Vroman II Site does not contain any standing structures and was probably cultivated or was used for animal grazing. According to the 1866 *New Topographic Atlas of Schoharie County, New York*, the Schoharie Valley Railroad was constructed west of the project area along the east bank of Schoharie Creek. Throughout the first decade of the twentieth century, the Schoharie Valley Railroad continued to occupy the same field as the Vroman II Site (USGS 1900). Despite the importance of the railroad in Schoharie County, a local depot does not appear to have been constructed near the village of Schoharie, and the floodplain of Schoharie Creek remained largely unoccupied during this time period.

Photograph 3. Looking West Toward the Former Dietz Residence (MDS 1). This building was removed in 1997 and only remnants of the foundation remain within the project limits. As shown in this photograph, several buildings formerly stood near the residence that were associated with the occupation of the property during the mid-/late nineteenth and early twentieth centuries.

Photograph 4. Looking Northwest Toward the Former Dietz Residence (MDS 1). In the background of the photo is the small garage (Structure N) that is currently found within the project limits. MDS 1 was removed in 1997 by the current property owner. The gate that is shown in the foreground leads to the former Vroman residence (Structure O), which is located next door.

The current Route 30 and Route 443 roadways were constructed through the project area sometime between 1914 and 1943 (USGS Quadrangle Map 1943). Specific impacts to the Vroman II Site involved cut and fill activities for the existing roadway and the realignment of Route 443 through the project area. According to the 1943 USGS *Quadrangle Map of Schoharie* (USGS 1943), one small building was located near the southern boundary of the Vroman II Site. This building is not identified as to its use but according to Schafer (1995) probably consists of a pre-1900 sawmill (MDS 6). Schafer (1995) indicates that this MDS is located beyond the boundaries of the Vroman II Site and will not be impacted. By 1954, this structure appears to have been removed, leaving the area surrounding the Vroman II Site unoccupied. The property continues to be free of standing structures on the 1977 *7.5' Schoharie Quadrangle Map* (USGS 1977) and was probably cultivated during this time period. As discussed in the Archaeological Results section of this report, the area surrounding the Vroman II Site has not been developed and is currently being cultivated by the owners of the Carrot Barn vegetable market.

One historic site is located near the Vroman II Site. The Dietz Farmstead Site (NYSM # 10149) is located approximately 152 meters (500 feet) north of the Vroman II Site and is believed to have been owned by the Dietz family during the late nineteenth century. According to Schafer (1995), this archaeological site is located well beyond the current project limits and will not be impacted.

Methodology

Field Methods

Since the Vroman II Site is located in a plowed field, a systematic surface survey of the site was completed before subsurface testing was initiated within the project limits. This surface survey was completed by aligning the field crew at an interval of 5 meters (16 feet) from each other and walking across the plowed field. When artifacts were identified on the ground surface, the find spot was marked and each artifact find spot was assigned a separate provenience number.

Nine test units and 21 shovel test pits (STPs) were excavated within the project limits (Table 2). Seven of the nine test units (Units 1–2, 4, 6–9) measured 1 m x 1 m (3.2 ft x 3.2 ft). Unit 3 measured 1.5 m x .75 m (4.8 ft x 2.4 ft), and Unit 5 measured 0.75 m x 0.75 m (2.4 ft x 2.4 ft). Each of the 21 STPs measured 50 cm x 50 cm (20 in x 20 in) and were excavated in order to provide supplemental information about the spatial arrangement and distribution of artifacts across the site.

Each of the test units was hand excavated in 10-centimeter (4-inch) arbitrary levels within natural soil horizons. Changes in natural soil horizons were determined based upon changes in the soil color and texture. Soil color was determined using the Munsell Soil Color Charts (Munsell 1975), and soil texture was determined based upon the quantity or frequency of sand, silt, and clay present in a particular layer. The contents of each of the units were screened through 0.6-centimeter (¼-inch) mesh hardware cloth. The artifacts that were recovered from each unit were bagged according to their appearance in a specific layer or feature and were returned to the Anthropology Laboratory at the NYS Museum to be washed and catalogued according to the procedures described in the Laboratory Methods and Analysis section of this report.

When features were encountered in the floor of the test units, the following procedures were implemented. Each of the features was photographed and drawn prior to excavation. Once the feature was bisected so that a cross section of the feature was visible in either the wall or the floor of the unit, basic information was recorded about the feature, including the feature type, the vertical and horizontal dimensions, the shape, and whether the feature contained artifacts. In addition, the exposed cross section was photographed and the profile of the feature was drawn on graph paper. Soil samples were collected in standard 1-liter units for floatation when appropriate.

Once sterile or non-artifact bearing soils were encountered in the floor of the unit, a 50 cm x 50 cm (20 in x 20 in) STP was excavated through the floor of the unit to (1) insure that no deeply buried deposits were located underneath and (2) collect additional information concerning the deposition of various soils across the site. Before each of the units was backfilled, the north and west walls of each of the units was drawn and photographed. When appropriate, the south and/or east walls were also drawn to document specific occupation layers and/or cultural features.

Laboratory Methods

All of the artifacts that were recovered during the site examination of the Vroman I and II sites were washed, processed, and catalogued by staff from the Anthropology Survey at the NYS Museum in Albany. All historic artifacts were processed according to criteria outlined in South (1976) and involved washing, dry brushing fragile materials, cataloguing, and numbering of all artifacts. The cataloguing of artifacts was completed in such a way that all artifacts were first sorted into one of four general artifact categories based upon their use as domestic (e.g., ceramic vessels, bottle glass, can fragments), architectural (e.g., nails, brick fragments, mortar, window glass), personal (e.g., buttons, clothing items, coins, mirror fragments), and miscellaneous remains (e.g., pieces of coal, bone and shell fragments). Each of these artifacts was further catalogued according to their manufacturing technique, decoration, form, and/or object function. Approximate time ranges and/or information concerning the period of use were also recorded when appropriate.

The prehistoric artifacts that were recovered from the Vroman I and II sites were processed in a similar manner, with each of the artifacts being assigned to one of seven artifact categories based upon their material type. These artifact categories are listed as follows: chipped stone, ground stone, pottery, shell, faunal, botanical, and other. Each artifact was further catalogued based upon the artifact's specific material form, surface treatment, and/or function (e.g., blue-gray Onondaga chert end scraper). When known, information regarding approximate periods of use and information relating to the prehistoric cultural tradition were also recorded.

Cataloging of chipped stone tools and flakes in this manner was important since it provided a basic framework within which research questions could be addressed (Sullivan and Rozen 1985:755–779). An important aspect of this research has involved the creation of a typology for the bifacially worked tools (and the resulting flakes) that were produced during stone tool manufacture. Although the resulting typologies are usually created by individual

researchers and are largely dependent upon the research questions that are being addressed, most typologies are similar in that they (1) emphasize the processes by which lithic cores are reduced to smaller finished tools and (2) seek to use the byproducts of reduction (e.g., flakes) as a means of reconstructing prehistoric behavior. With this in mind, the chipped stone tools and the flakes that were recovered from the Vroman I and the Vroman II sites were analyzed according to criteria outlined in Magne (1985) and Callahan (1979). Table 3 summarizes how each of the different biface reduction stages were defined, and Table 4 provides a summary of the flake typology that was used to catalog the flakes from the Vroman I and Vroman II sites.

Table 2. Summary of Placement, Size, and Rationale for Excavation of Units Within the Vroman I and Vroman II Sites.

Layer/Horizon	Unit Number and Size	Cultural Remains	Placement	Rationale for Excavation	Soil
Vroman I					
(0–19/20 cm)	Unit 1	Yes	East yard of MDS 1 along southeast corner of bldg.	Determine if structural remains associated with MDS 1 were located within project limits, sample refuse, and determine if any additional features are located within project limits.	Fill Layer 1
(19.20–36/39 cm)	1 x 1 m	Yes			Fill Layer 2
(36/39–58 cm)		Yes			Buried Ap-
(58–86 cm)		Yes			Buried B-
(86–129 cm)		No			Buried C-
(129+ cm)		No			Glacial Till
(0–19/23 cm)	Unit 2	Yes	East yard of MDS 1 along northeast corner of bldg.	Determine if any additional features are in project limits, sample refuse, and refine stratigraphy of site.	Fill Layer 1
(19/23–38/43 cm)	1 m x. 1 m	Yes			Fill Layer 2
(38/43–65/69 cm)		Yes			Buried Ap-
(65/69–95/100 cm)		Yes			Buried B-
(95/100–129/130 cm)		No			Buried C-
(129/130+ cm)		No			Glacial Till
(0–32/42 cm)	Unit 3	Yes	North yard of MDS 1	Determine if any additional features are located within project limits, sample refuse, refine the stratigraphy of site. Also determine if pre-1912 remnants of MDS 3 are located within project limits	Fill Layer 1
(32/42–72/73 cm)	1.5 . x..75 m	Yes			Fill Layer 2
(72/73–85 cm)		No			Buried Ap-
(85–113 cm)		No			Buried B-
(0–10/14 cm)	Unit 4	Yes	East yard of MDS 1 along northeast corner of bldg.	Determine if structural remains associated with MDS 1 were located within project limits, sample refuse, and determine if any additional features are located within project limits.	Fill Layer 1
(10/14–28/32 cm)	1 m x 1 m	Yes			Fill Layer 2
(28/32–36/40 cm)		Yes			Buried Ap-
(36/40–87/90 cm)		Yes			Buried B-
(87/90–120 cm)		No			Buried C-
(120+ cm)		No			Glacial Till
1 (0–45 cm)	Unit 5	Yes	North yard of MDS 1	Sample refuse around pre-1914 MDS 3, determine if any additional features are located within project limits.	Fill Layer
	.75 x .75 m				
Vroman II					
(0–25/28 cm)	Unit 6	Yes	Along southern boundary of the Vroman II site.	Sample deposits, determine if additional features are located within project limits, and assess the stratigraphy of the site.	Ap-horizon
(25/28–98 cm)	1 m x 1 m	Yes-top			B-horizon
(98–108 cm)		No			C-horizon
(0–25/30 cm)	Unit 7	Yes	Along the southern half of the Vroman II site.	Sample deposits, determine if additional features are located within the project limits, and assess the stratigraphy of the site.	Ap-horizon
(25/30–40 cm)	1 m x. 1 m	No			A-horizon
(40–102/105 cm)		No			B-horizon
(102/105–115 cm)		No			C-horizon
(0–19/24 cm)	Unit 8	Yes	Along the northern half of the Vroman II site.	Sample deposits, determine if additional features are located within the project limits, and assess the stratigraphy of the site.	Ap-horizon
(19/24–34/38 cm)	1 m x 1 m	Yes			A-horizon
(34/38–69/70 cm)		Yes-top			B-horizon
(69/70–88 cm)		No			C-horizon
(0–20/25 cm)	Unit 9	Yes	Along the northern boundary of the Vroman II site.	Sample deposits, determine if additional features are located within the project limits, and assess the stratigraphy of the site.	Ap-horizon
(20/25–36/40 cm)	1 x. 1 m	Yes			A-horizon
(36/40–112 cm)		No			B-horizon
(112–122 cm)		No			C-horizon

Table 3. Definition of Biface Reduction Stages at the Vroman I and II Sites.[1]

Manufacturing Stage	Reduction Stage/Task	Definition/Biface Characteristics
Stage I Bifaces	Obtaining the Blank	This reduction stage occurs when the lithic raw materials are first collected. Evidence of this reduction stage is usually represented by the presence of unmodified cobbles or nodules of chert at a site.
Stage II Bifaces	Initial Edging	The goal of this biface reduction stage is to create a bifacially worked and circumferential core that contains edge angles measuring between 55 and 675 degrees with a width to thickness ratio of 2.0+
Stage III Bifaces	Primary Thinning	Once a bifacially worked core has been created, the next stage is designed to further thin the biface so that the artifact ultimately ends up with a lenticular shape and has edge angles measuring between 40 and 60 degrees. Once major "humps", "hinge fractures", and ridges are eliminated, the artifact should contain a width to thickness ratio of 3.0–4.0.
State IV Bifaces	Secondary Thinning	This stage is designed to create a biface with a flattened cross section and edge angles between 25 and 40 degrees. During this stage pressure is applied so that flake scars travel beyond the center line and undercut previous flake scars from the opposite margin. This type of flaking usually results in the biface containing a width to thickness ratio of 4.0–5.0, which allows the artifact to be hafted in later stages.
Stage V Bifaces	Final Shaping/Hafting	Associated with final shaping or notching of thinned biface. Generally, the end product of this stage is a finished point that contains a width to thickness ratio of 4.0–6.0.

1-Biface Reduction Stages taken from Callahan (1979)

Table 4. Definition of Flake Categories for the Vroman I and the Vroman II Sites.[1]

Flake Type	Reduction Stage[2]	Definition/Flake Characteristics
Primary	Early Biface Reduction	Primary flakes are characterized by more than 50% cortical material along the dorsal surface of flake, and variation in the amount of platform preparation with some flakes exhibiting little or no cortex while others contain more extensive amounts of platform preparation. Primary flakes are usually the largest flakes in an assemblage and are formed during the initial reduction and/or shaping of lithic cores.
Secondary	Early Biface Reduction	Secondary flakes usually contain less than 50% cortex along the dorsal surface, often contain one or more flake scars, variation in the amount of platform preparation. Secondary flakes usually contain a large size and are associated with activities involving the initial reduction and shaping of lithic cores.
Tertiary Flakes	Middle-Late Biface Reduction	Tertiary flakes contain a prominent bulb of percussion and striking platform and a relative absence of cortical material along the dorsal surface. The surface of the flake may contain multiple flake scars. Tertiary flakes are usually smaller and thinner than primary and secondary reduction flakes.
Bifacial Thinning	Late Biface Reduction	Like tertiary flakes, bifacial thinning flakes generally lack cortex along the dorsal surface and are smaller and thinner than primary and secondary flakes. Bifacial thinning flakes may contain an acute angle between the platform and the dorsal surface that results in a flake that has a curved lenticular appearance when viewed in cross section. Many flakes have a lipped and/or multifaceted platform. and many negative flake scars across the surface.
Pressure	Late Biface Reduction	Pressure flakes usually lack cortex along the dorsal surface and are often produced during the sharpening of bifacially worked tools. These types of flakes usually lack formal platform preparation and are usually the smallest flakes in an assemblage.
Broken	All Stages	Broken flakes consist of distal and medial flake fragments that could not be assigned to a particular flake category due to the absence of a proximal end with associated platform remnant breakage may occur as a result of poor materials and/or inexperience of knapper.
General Shatter	All Stages	General shatter consists of small amorphous pieces of debris that lack typical flake characteristics (e.g., evidence of platform preparation, a particular termination point, etc.). Shatter can be produced at all stages of reduction and can appear in a variety of sizes.
Block Shatter	All Stages	Block shatter consists of large angular pieces of shatter that lack one or more flake characteristics including a well defined striking platform and/or a bulb of percussion.
Utilized Flakes	All Stages	Utilized flakes consist of flakes that have been reworked into expedient tools. These types of flakes are identified by the presence of retouch along one or more faces and/or evidence of use wear as depicted by polish and/or striation along the edge of the artifact.

1-Flake categories constructed from data outlined in Crabtree (1972), Hart and Cremens (1991), and Sullivan and Rosen (1985). 2-Refers to biface reduction stage in which flakes are produced. Reduction stages were determined based upon similar criteria described in Callahan (1979).

Results of the Site Examination of the Vroman I Site (NYSM # 10146 and 10148)

The Vroman I Site consists of a small multi-component site located along the north bank of Fox Creek in the Town of Schoharie, New York. The site produced artifacts associated with the occupation of the site as (1) a small Transitional/Early Woodland camp, and (2) debris associated with the nineteenth-century occupation of MDS 1. Although the Ap-horizon has been impacted by plowing, an intact (and artifact bearing) B-horizon was encountered at the site. The results of the site examination indicate that the site contains research potential and can contribute to our understanding of the prehistoric and historic occupation of the Town of Schoharie.

Site Location and Boundaries

The Vroman I Site was initially identified during the 1995 reconnaissance survey of the PIN 9125.05.121 project area (Schafer 1995). The site is located on the front lawn of MDS 1 near the Village of Schoharie, Schoharie County, New York (Figure 3; Photograph 5). The site is located approximately 30 meters (100 feet) north of Fox Creek and is bordered on the east by the road leading to the pedestrian bridge over Fox Creek. Route 443 is located along the north side of the project area.

The actual size of the site is currently difficult to determine given the narrow project limits. As discussed below, the current property owner indicated that prehistoric artifacts were recovered near her residence (Structure O, no address #) and along her garage (Structure O, no address #), both of which are located beyond the existing project limits. The recovery of artifacts from these areas suggests that the site is much larger and includes deposits located beyond the project limits. The results of the site examination indicate that the portion of the site that is located within the project limits measures approximately 45 meters (144 feet) long and is 12.75 meters (40.8 feet) wide. Within the project limits, the site encompasses 573.75 square meters (5,875.2 square feet) or 0.05 hectares (0.13 acres). The site examination indicates that cultural deposits associated with the Vroman I Site can be found to a depth of 95–100 centimeters (37–39 inches) below the ground surface.

The eastern boundary of the site is located 2.25 meters (7.2 feet) from the edge of the existing pavement. The area within 2.25 meters (7.2 feet) of the edge of the existing pavement could not be tested due to existing road berm and fill. Due to the extensive impacts that were imposed during the creation of the roadway (NYSDOT Road Construction Map 1935), it seems unlikely that intact archaeological deposits exist underneath the roadway.

Site Stratigraphy and Chronology

As discussed in the Archaeological Methods section of this report, the northern and eastern yards of MDS 1 were tested. The eastern yard was tested in Units 1, 2, and 4, STPs A–D, G and H, and STPs 4–7. The northern yard was tested in Units 3 and 5, STPs E–F, and STPs 8–9.4. For the purposes of this project, the arbitrary boundary between these two areas has been defined by the gravel driveway for Structure N_1 (no address #). Although this boundary varies from that discussed in Schafer (1995:78–79), the same general yard areas have been maintained between these two projects.

The stratigraphy of the east yard is relatively simple with only minor variations exhibited in the stratigraphic profiles of Units 1, 2, and 4 (Figures 4–8; Table 5; Photograph 6). The first two stratigraphic layers (and the artifacts that were recovered from these levels) consist of secondary deposits that have been transported to their present location in dirt that has been used to build up or fill in the landscape surrounding MDS 1 (see Table 5). According to the current property owner (Mildred Vroman, personal communication, 1998), the soils that were used to fill in this area were taken from the western portion of the property (primarily the area west of Structure N) and do not represent deposits that were brought to the property from another location. Within these deposits, the first soil layer extended to an approximate depth of 19/20 centimeters (7 inches) below the ground surface and contained a dark brown silt loam or silt clay loam soil (10YR3/3). The second fill layer is located underneath and contains a dark yellow brown or dark brown sandy silt soil (10 YR 3/6) that extends to a depth of 39 centimeters (15 inches) below the ground surface. Like the layer above it, both fill layers contain a mixture of prehistoric and nineteenth-century historic artifacts.

Underneath these two fill layers were buried Ap-, B-, and C-horizons. The buried Ap-horizon contains a brown sand loam (10 YR 4/3) soil with gravel and extends to an approximate depth of 50–65 centimeters (20–26 inches) below the ground surface. This plowzone layer contains both prehistoric and nineteenth-century domestic and architectural remains and is believed to be the same Ap-horizon that was encountered during the 1995 reconnaissance survey

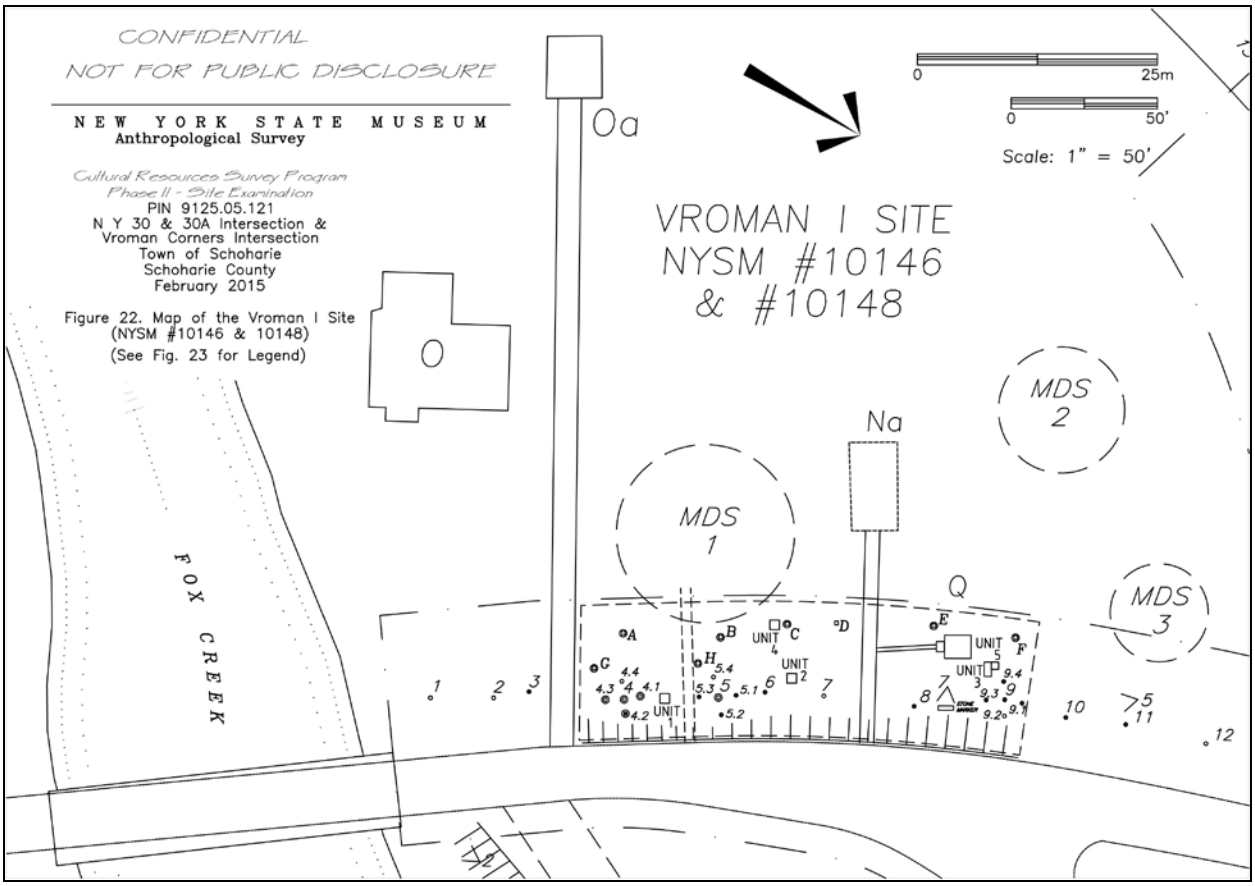


Figure 3. Map of the Vroman I Site.

Photograph 5. Looking South Across the Vroman I Site (NYSM # 10146 and 10148). Structure Q (no address #) is shown in the middle of the photograph, and MDS 3 (darker grass) is shown on the north side of Structure Q (no address #).

Table 5. Summary of Stratigraphic Layers and Vertical Distribution of Artifacts at the Vroman I Site (NYSM # 10146 and 10148).

Unit/Level	Depth[1]	Soil Description	Soil Horizon	No. Prehistoric Artifacts	No. Historic Artifacts	No. Unidentified Artifacts	No. Modern Artifacts	Total
Unit 1/ Level 1	0–10 cm (0–4 in)	Dark Brown Silt Loam w/ gravel and cobbles	Fill	--	3	--	--	3
Unit 1/ Level 2	10–19 cm (4–8 in)	Dark Brown Silt Loam w/ gravel and cobbles	Fill	14	20	1	--	35
Unit 1/ Level 3	19/20–30 cm (8–12 in)	Dark Brown Sand Silt w/ gravel	Fill	29	11	2	--	42
Unit 1/ Level 4	30–36/39 cm (12–14/15 in)	Dark Brown Sand Silt w/ gravel	Fill	35	33	4	--	72
Unit 1/ Level 5	36/39–48 cm (14/15–19 in)	Brown Sand Loam w/ gravel	Buried Ap	61	60	--	--	121
Unit 1/ Level 6	48–58 cm (19–23 in)	Brown Sand Loam w/ gravel	Buried Ap	85	72	2	--	159
Unit 1/ Level 7	58–70 cm (23–28 in)	Dark Yellow Brown Sand Loam w/ gravel and cobbles	Buried B	11	1	1	--	13
Unit 1/STP	70–86 cm (28–24 in)	Dark Yellow Brown Sand Loam w/ gravel and cobbles	Buried B	--	--	--	--	--
Unit 1/STP	86–129 cm (34–51 in)	Reddish Brown Sand w/ gravel and cobbles	Buried C	--	--	--	--	--
Unit 1/STP	129+ cm (51+ in)	Gray Brown Sand	Glacial Till	--	--	--	--	--
Unit 2/ Level 1	0–10/11 cm (0–4 in)	Dark Brown Silt Clay Loam w/ Rocks	Fill	--	1	--	--	1
Unit 2/ Level 2	10/11–19/23 cm (4–8/9 in)	Dark Brown Silt Clay Loam w/ Rocks	Fill	4	4	1	1	10
Unit 2/ Level 3	19.23–26/28 cm (8/9–10/11 in)	Yellow Brown Sand Silt	Fill	21	5	1	--	27
Unit 2/ Level 4	26/28–38/43 cm (10/11–15/17 in)	Yellow Brown Sand Silt	Fill	23	27	1	--	51
Unit 2/ Level 5	38/43–47/51 cm (15/17–19/21 in)	Brown Sand Loam w/ Gravel	Buried Ap	27	86	3	--	116
Unit 2/ Level 6	47/51–59/62 cm (19/20–24/25 in)	Brown Sand w/ Gravel	Buried Ap	34	81	8	--	123
Unit 2/ Level 7	59/62–65/69 cm (24/25–26/27 in)	Brown Sand Loam w/ Gravel	Buried Ap	127	12	3	--	142

Table 5. Summary of Stratigraphic Layers and Vertical Distribution of Artifacts at the Vroman I Site (continued).

Unit/Level	Depth[1]	Soil Description	Soil Horizon	No. Prehistoric Artifacts	No. Historic Artifacts	No. Unidentified Artifacts	No. Modern Artifacts	Total
Unit 2/ Level 8	65/69–77/81 cm (26/27–30/32 in)	Dark Yellow Brown Sand Loam with Rocks and Gravel	Buried B	15	7	3	--	25
Unit 2/ Level 9	77/81–89/95 cm (30/32-35/37 in)	Dark Yellow Brown Sand Loam	Buried B	--	--	--	--	--
Unit 2/STP	89/95–95/100 cm (35/37–37/39 in)	Dark Yellow Brown Sand Loam	Buried B	--	--	--	--	--
Unit 2/STP	95/100–129/130 cm (37/39–51 in)	Red Brown Sand w/ Gravel	Buried C	--	--	--	--	--
Unit 2/STP	129/130+ cm (51+ in)	Gray Sand w/ rocks and Gravel	Glacial Till	--	--	--	--	--
Unit 2/Misc[2]	--	--	--	15	6	1	--	22
Unit 3/ Level 1	0–10 cm (0–4 in)	Dark Brown Silt Loam	Fill	5	41	--	1	47
Unit 3/ Level 2	10–21/22 cm (4–8/9 in)	Dark Brown Silt Loam	Fill	11	70	1	1	83
Unit 3/ Level 3	21/22–8/9-13 in)	Dark Brown Silt Loam	Fill	20	43	--	1	64
Unit 3/ Level 4	32–42 cm (13–17 in)	Dark Brown Silt Loam	Fill	21	11	--	--	32
Unit 3/ Level 5	42–53 cm (17–21 in)	Dark Yellow Brown Silt Loam	Fill	1	2	1	--	4
Unit 3/ Level 6	53–63 cm (21–25 in)	Dark Yellow Brown Silt Loam	Fill	2	--	--	--	2
Unit 3/ Level 7	63–72/73 cm (25–28 in)	Dark Yellow Brown Silt Loam	Fill	--	--	--	--	--
Unit 3/ Level 8	72/73–82 cm (28–32 in)	Brown Sand Loam	Buried Ap	--	--	--	--	--
Unit 3/ Level 9	82–84/85 cm (32–33 in)	Brown Sand Loam	Buried Ap	--	--	--	--	--
Unit 3/ Level 10	84/85–104/106 cm (33–41 in)	Dark Yellow Brown Sand Loam	Buried B	--	--	--	--	--
Unit 3/ Level 11	104/106–113 cm (41–45 in)	Dark Yellow Brown Sand Loam	Buried B	--	--	--	--	--
Unit 4/ Level 1	0–10/11 cm (0–4 in)	Dark Brown Silt Clay Loam	Fill	12	32	--	--	44

Table 5. Summary of Stratigraphic Layers and Vertical Distribution of Artifacts at the Vroman I Site (continued).

Unit/Level	Depth[1]	Soil Description	Soil Horizon	No. Prehistoric Artifacts	No. Historic Artifacts	No. Unidentified Artifacts	No. Modern Artifacts	Total
Unit 4/ Level 2	10/11–20/24 cm (4–8/10 in)	Dark Brown Silt Clay Loam	Fill	20	54	4	--	78
Unit 4/ Level 3	20/24–28/32 cm (8/10–11/12 in)	Dark Yellow Brown Silt	Fill	4	14	2	--	20
Unit 4/ Level 4	28/32–38 cm (11/12–14 in)	Brown Sand Loam	Buried Ap	4	37	--	1	42
Unit 4/ Level 5	38–47/48 cm (14–18 in)	Brown Sand Loam	Buried Ap	37	197	9	--	243
Unit 4/ Level 6	47/48–50/51 cm (18–20 in)	Brown Sand Loam	Buried Ap	47	102	3	--	152
Unit 4/ Level 7	50/51–63/64 cm (20–25 in)	Dark Yellow Brown Sand Loam	Buried B	1	1	1	--	3
Unit 4/ STP	63/64–87/90 cm (25–34 in)	Dark Yellow Brown Sand Loam	Buried B	--	--	--	--	--
Unit 4/ STP	87/90–120 cm (43–47 in)	Red Brown Sand w/ Rocks	Buried C	--	--	--	--	--
Unit 4/STP	120+ cm	Gray Sand	Glacial Till	--	--	--	--	--
Unit 5/ Level 1	0–2/12 cm (0–0.8/5 in)	Dark Brown Silt Loam	Fill	--	15	--	--	15
Unit 5/ Level 2	2/12-12/20 cm (0.8/5–5/8 in)	Dark Brown Silt Loam	Fill	--	15	--	--	15
Unit 5/ Level 3	12/20–30 cm (5/8–12 in)	Dark Brown Silt Loam	Fill	4	20	1	1	26
Unit 5/ Level 4	30–41 cm (12–16 in)	Dark Brown Silt Loam	Fill	2	3	--	--	5
Unit 5/ Level 5	41–45 cm (16–18 in)	Dark Brown Silt Loam	Fill	2	--	--	--	2
Unit 5/ Level 6	45–55 cm (18–22 in)	Dark Yellow Brown Silt Loam	Buried Ap	1	--	--	--	1
Surface Collection	--	--	--	8	--	--	--	8
STPs A-H	--	--	--	218	172	21	1	412
STPs 4-9.4	--	--	--	36	91	2	1	130
Total	--	--	--	958	1343	81	8	2390

1-Depth recorded in centimeters below ground surface, 2-Includes artifacts recovered from wall scraping and back dirt pile

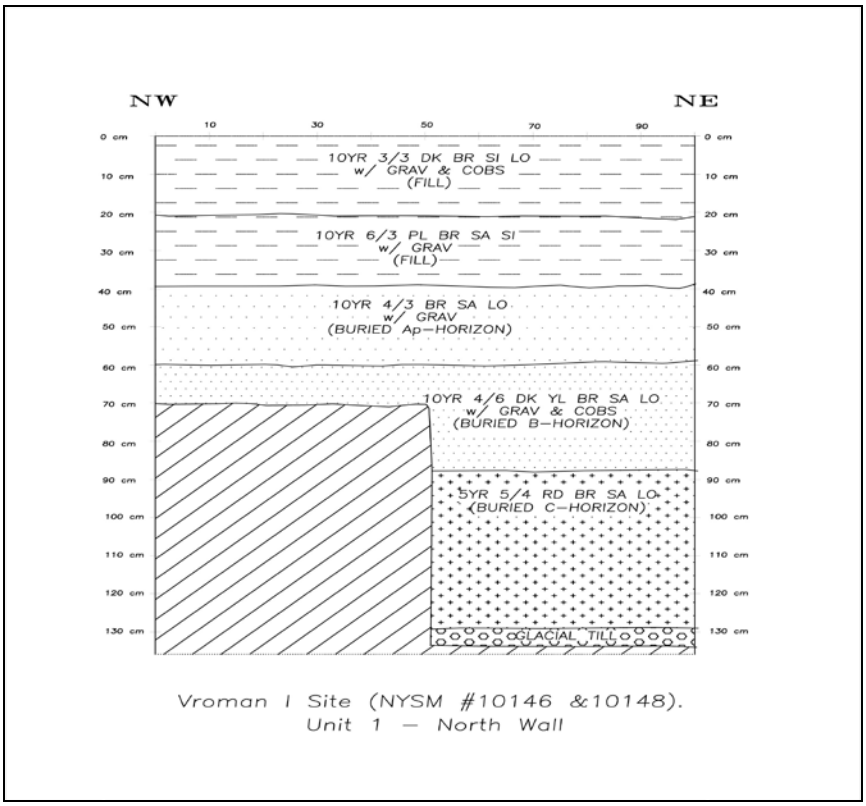


Figure 4. Wall Profile of Unit 1.

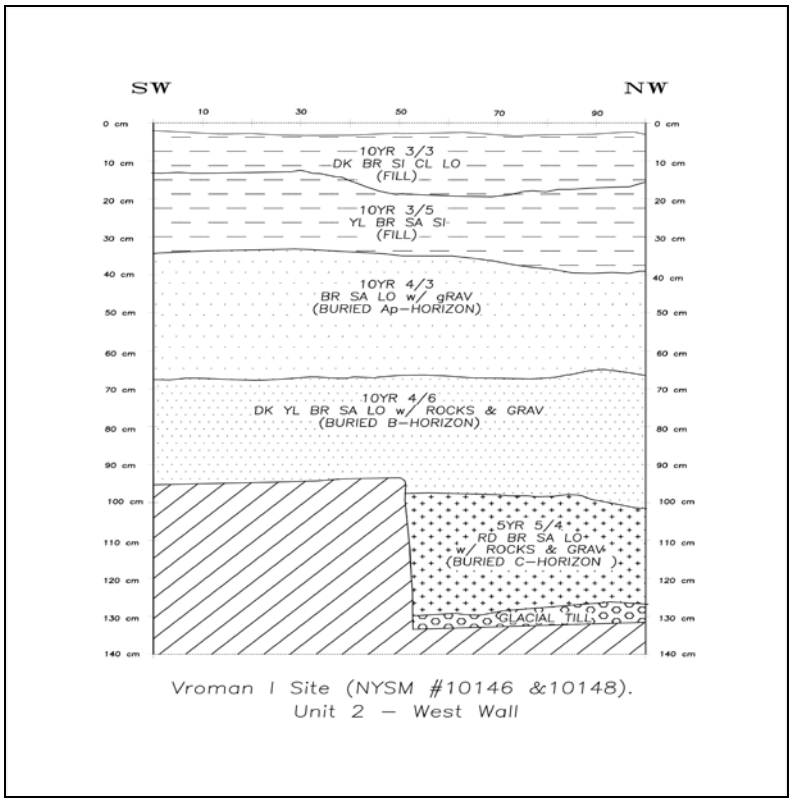


Figure 5. West Wall Profile of Unit 2.

Photograph 6. Looking Southwest Toward the Southwest Wall of Test Unit # 2. The fill layer and buried Ap-horizon are visible in the wall profile. The pipe that is shown in the unit is modern and was probably deposited during the destruction of MDS 1. This pipe is located at the interface of the second fill layer and the buried Ap-horizon.

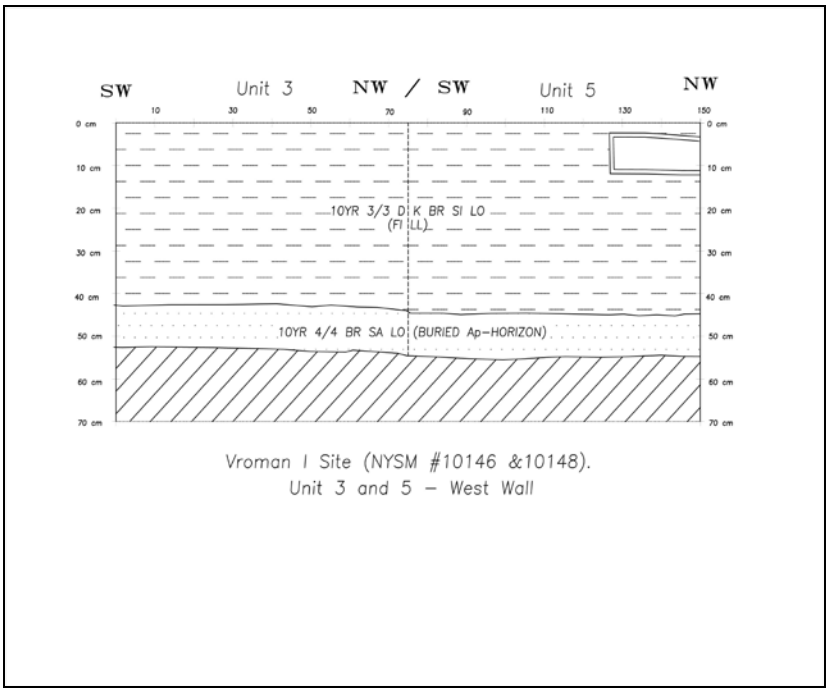


Figure 6. West Wall Profile of Units 3 and 5.

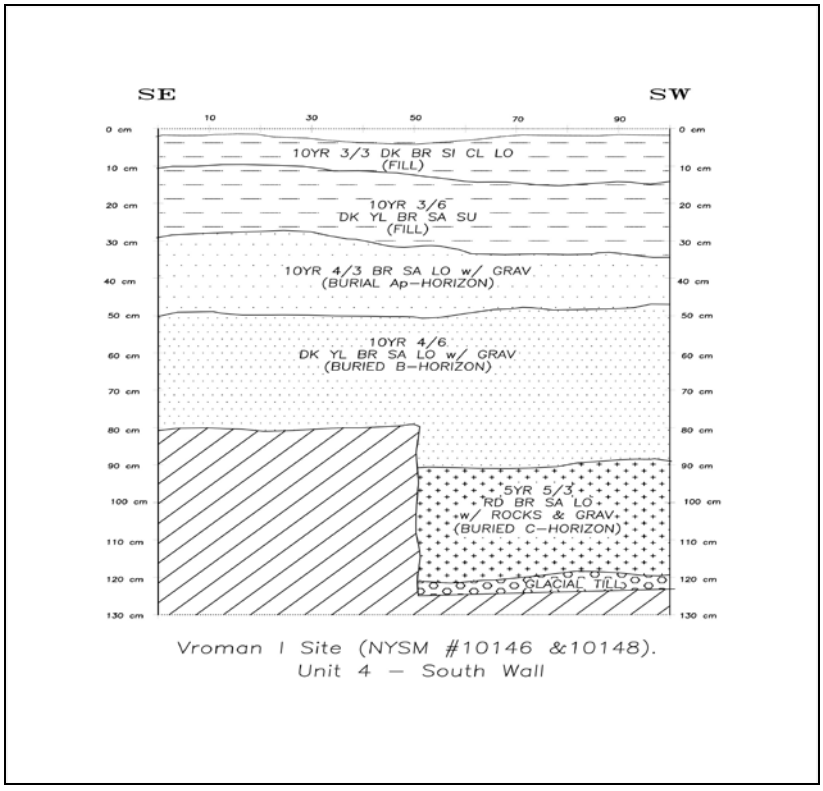


Figure 7. South Wall Profile of Unit 4.

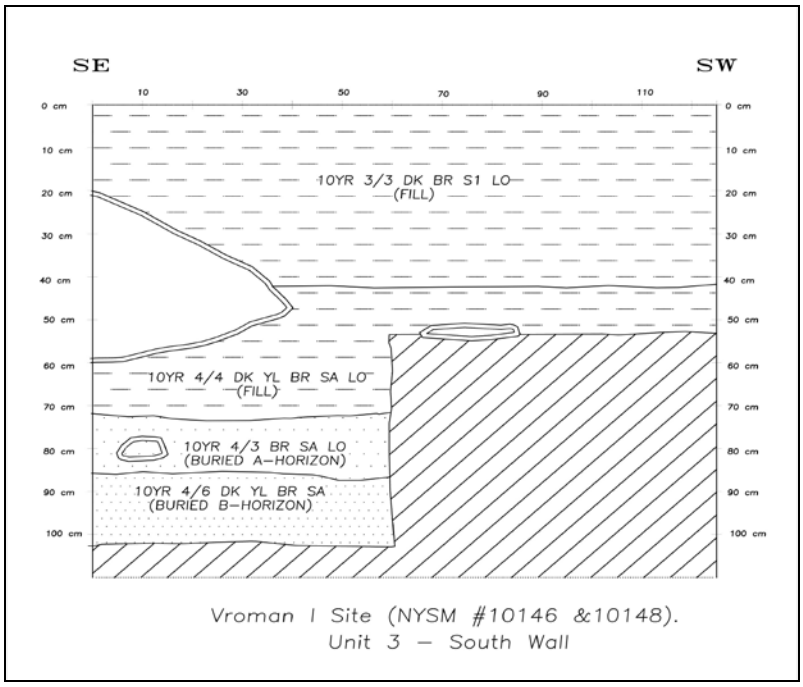


Figure 8. South Wall Profile of Unit 5.

(Schafer 1995). Underneath is an artifact-bearing B-horizon. As seen in Table 5, this soil horizon extended to a maximum depth of 95–100 centimeters (39 inches) below the ground surface and contained an artifact bearing dark yellow brown sand loam (10 YR 4/6) soil. Although this soil layer could not be divided into distinct sub-layers (e.g., B_1, B_2), changes in the soil texture were detected as the base of the layer was approximated. The majority of the artifacts that were recovered from this soil layer consist of small chert flakes. Smaller historic artifacts (e.g., pieces of coal, nail fragments) were also recovered and were probably deposited in this soil horizon as a result of natural processes. A sterile buried C-horizon was encountered in Units 1, 2, and 4. This soil horizon contained a reddish brown sandy loam (5 YR 5/4 and 5 YR 5/3) with large cobbles and gravel and was excavated to an approximate depth of 129–130 centimeters (51 inches) below the ground surface. A gray sand glacial till layer was identified in Units 1, 2, and 4 at an average depth of 129 centimeters (51 inches) below the ground surface.

The soil profiles of the units that were excavated in the north yard of the property were somewhat different from those in the eastern yard (see Figures 6 and 8). As seen in Table 5, the first soil layer of Units 3 and 5 contained a dark brown silt loam (10 YR 3/3) layer of fill that extended to a depth of approximately 0–42 centimeters (0–17 inches) below the ground surface. This soil layer contained a large quantity of nineteenth-century artifacts, including undecorated and transfer-printed whiteware sherds (c. 1820–1900), unidentified bone and clam shell fragments, architectural debris (unidentified machine-cut nails (1835+), wire nails (1875+), handmade brick, unidentified brick, aqua flat glass, and clear and aqua bottle fragments.

Like Units 1, 2, and 4, a second fill layer was encountered in Unit 3 at a depth of 42 centimeters (17 inches) below the ground surface. This soil layer contained a dark yellow brown sand loam (10 YR 4/4) soil that extended to a depth of 73 centimeters (29 inches) below the ground surface. This soil layer was artifact-bearing and produced a variety of prehistoric and historic remains, including utilized and non-utilized flakes, architectural debris (e.g., flat window glass fragments, square, machine-cut, and wire nails, pieces of mortar, and unidentified brick fragments) and domestic remains (e.g., bone fragments, bottle glass fragments, charcoal fragments, cinder fragments, clam shell fragments). This second fill layer was not identified in Unit 5.

A buried Ap-horizon was also encountered in Units 3 and 5. This soil horizon was encountered at a variable depth of 44–73 centimeters (17–29 inches) below the ground surface. As seen in the wall profiles of Units 3 and 5 (see Figures 6 and 8), this soil horizon contained a brown sand loam (10 YR 4/3 and 10 YR 4/4) soil. One broken flake was recovered from this soil horizon, and the buried Ap-horizon in Unit 3 was sterile. A buried B-horizon was encountered in Unit 3 at a depth of 94/95 centimeters (37 inches) below the ground surface and contained a dark yellow brown sand soil

(10 YR 4/6). This soil horizon was excavated to a final depth of 113 centimeters (44 inches) below the ground surface and failed to produce any prehistoric or historic artifacts.

Presently, 13.7 square meters or 2.4% of the Vroman I site has been excavated as a result of the reconnaissance survey and the site examination.

Features

Although no prehistoric features were identified during the site examination of the Vroman I Site, several pieces of wood charcoal and a piece of fire-cracked rock were recovered from the buried Ap- and B-horizons. These artifacts may indicate that one or more prehistoric features were located within the project limits. Radiocarbon dates from midden debris at the site produced Early Woodland and Transitional dates. A date of 2,460 +/- 40 B.P. (cal B.C. 780 to 410) (B-186306) was obtained from Unit 3, Level 3 while a date of 3,060 +/- 40 B.P. (cal B.C. 1400 to 1190) (B-186305) was obtained from Unit 1, Level 2.

A small historic stone marker was identified along the eastern side of Unit 3 (Photograph 7) and contains the inscription "…Henry". The marker measures approximately 1 meter (3.2 feet) long and is approximately 0.5 meters (1.6 feet) wide. Although the exact use of this marker is not currently known (possibly related to former MDS 3), it seems likely that this feature is associated with the late nineteenth-century ownership of the property by Henry Cady. As discussed in the Site Structure section, this assertion is further supported by a large number of late nineteenth-century bottles and miscellaneous artifacts that were recovered in the STPs that surround the marker.

Artifacts

Two thousand three hundred and ninety-one artifacts were recovered from the Vroman I Site (Table 6). Seven hundred and one (29%) artifacts were recovered from fill deposits, and 1,140 (or 48%) of the artifacts were recovered from non-fill deposits. Nine hundred and fifty-nine artifacts were prehistoric and 1,343 were historic. The remaining 89 artifacts are considered to be either modern remains or are unidentified. As seen in Table 6, the majority of the non-fill related artifacts (n=1,099) were recovered from the buried Ap-horizon of the test units. A small amount of artifacts were also found in the buried B-horizon of Units 1–5 and in the STPs.

Prehistoric Artifacts

Nine hundred and fifty-nine prehistoric artifacts were recovered from the Vroman I Site. Two hundred and forty-seven artifacts were recovered from the fill deposits, and 450 artifacts were recovered from the buried Ap- and B-horizons of Units 1–5. Two hundred and sixty-two prehistoric artifacts were also recovered from the STPs. The prehistoric artifacts that were recovered from the buried Ap- and B-horizons include the following items: utilized and non-utilized flakes, a pitted stone, a projectile point tip, chipped stone tools, and modified core fragments.

Only one ground/pecked stone tool was recovered from the Vroman I Site. This artifact consists of a small pitted stone that was recovered from the buried B-horizon of STP G. This expedient tool was manufactured from a sandstone river cobble and measures approximately 8 centimeters (3 inches) in diameter. This artifact contains a single "pit" along the surface of the artifact. There is only a limited amount of battering along the surface, suggesting that it was used for a short period of time before being discarded.

Four chipped stone tools were also recovered from the buried Ap- and B-horizons. The first of these artifacts consists of a small worked core. This artifact measures approximately 4 centimeters (1.57 inches) in diameter and contains several flake scars along the dorsal surface. This artifact is probably made from Onondaga chert and was probably procured from one of several chert outcrops located within 3.2 kilometers (2 miles) of the PIN 9125.05.121 project area.

Two of these chipped stone tools were catalogued as broken bifaces. One of these bifaces was recovered from the Ap-horizon in STP 4.3 (Photograph 8). This artifact is broken along the midsection and is manufactured from dark gray Onondaga chert. Based upon the width-to-thickness ratio, this artifact has been classified as a Stage I biface (Callahan 1979). The second biface was recovered from the buried B-horizon in STP G (see Photograph 8) and is broken along the midsection. This artifact measures 24 millimeters (0.9 inches) wide, and it has a thickness of 6 millimeters (0.2 inches). This artifact contains a width-to-thickness ratio of 4.0 and has been classified as either a Stage III or Stage IV biface (Callahan 1979).

One projectile point tip was recovered from the buried Ap-horizon in Unit 2 (Photograph 8). The artifact is manufactured from gray Onondaga chert and contains a lateral fracture along the midsection. This artifact is 20 millimeters (0.78 inches) wide and is 21 millimeters (0.83 inches) long from the tip to the broken midsection.

Photograph 7. Stone Marker with the Inscription "...Henry."

Table 6. Provenience of Artifacts from the Vroman I Site (NYSM # 10146 and 10148).

Provenience	No. of Prehistoric Artifacts (%)	No. of Historic Artifacts (%)	No. of Unidentified Artifacts (%)	No. of Modern Artifacts (%)	Total (%)
Fill Deposits	247 (10.3)	424 (17.7)	25 (1)	5 (0.2)	801 (29)
Non-Fill Deposits					
Buried Ap-horizon	423 (17.7)	647 (27.1)	28 (1.1)	1 (0.04)	1099 (46)
Buried B-horizon	27 (1.1)	9 (0.3)	5 (0.2)	--	41 (1.7)
Other[1]	262 (10.9)	263 (10.9)	23 (0.9)	2 (0.08)	550 (23)
Total	959 (40)	1343 (56.2)	81 (3.4)	8 (0.33)	2391 (100)

1-Other category includes artifacts collected form surface survey, STPs, and wall scrapings of test units.

This artifact is 4 millimeters (0.16 inches) thick and contains a width-to-thickness ratio of 5. Based upon this measurement, the artifact can be characterized as a Stage IV or V biface and is considered to have been nearly complete prior to breakage. Although we presently do not know how this object broke or under what circumstances the object was discarded, we do know that the artifact contains an irretrievable fracture (Callahan 1979) that probably prevented the object from being further worked. Since the artifact lacks its base, it is presently difficult to assign the object to a particular time period or cultural tradition.

According to the current property owner, another projectile point has also been recovered from the property. Although the point could not be located for examination by museum staff, the property owner described the point as "a small triangular point that was equal on all sides" (Mildred Vroman, personal communication, 1998). The verbal description of this projectile point type resembles that of the Meadowwood bifaces described in Ritchie (1994) and may indicate that a portion of the site dates to either the Early Woodland time periods.

When Callahan's bifacial reduction stages are applied to these four artifacts, one of the artifacts was identified as a Stage I biface, one artifact was a Stage III/IV biface, and two artifacts were identified as Stage IV/V bifaces (Callahan 1979). The range of lithic reduction stages found among these bifaces suggests that the Vroman I Site was probably not a small temporary camp but rather represents a more substantial habitation whose occupants were not only curating existing tools but were also working smaller lithic cores into nearly complete or finished bifaces.

Six hundred and forty-five flakes were recovered from the non-fill deposits in Units 1–5 and STPs A–H. Seventy-four percent of these artifacts were recovered from the buried Ap-horizon, and 26% were recovered from the buried B-horizon. As discussed in the Site Structure section of this report, the majority of the flakes were recovered from the eastern yard of MDS 1 in Units 1, 2, 4 and STP G.

Analysis of these artifacts was completed according to the processes outlined in the Archaeological Methods section of this report. As seen in Tables 7 and 8, all of the major flake

Photograph 8. Prehistoric Artifacts Recovered from the Vroman I Site. Top photograph shows broken chalcedony core fragments from the buried Ap- and B-horizons in Units 1, 2, and 4. The bottom photograph shows small elongated utilized flake tools recovered from the buried Ap-horizon in Units 1 and 2.

Table 7. Summary of Flake Categories Recovered from the Buried Ap- and B-horizons of Units and Shovel Test Pits (STPs) at the Vroman I Site (NYSM # 10146 and 10148).

Unit/Level	Soil Horizon	Primary/ Secondary (%)	Tertiary (%)	Bifacial Thinning (%)	Pressure (%)	Broken (%)	Utilized (%)	Shatter (%)	Total (%)
Unit1/Level 5	Buried Ap	3 (0.4)	15 (2.3)	3 (0.4)	1 (0.1)	26 (4)	2 (0.3)	11 (1.7)	61 (9.5)
Unit 1/Level 6	Buried Ap	10 (1.5)	12 (1.8)	8 (1.2)	3 (0.4)	39 (6)	--	13 (2)	85 (13.2)
Unit 1/Level 7	Buried B	3 (0.4)	1 (0.1)	1 (0.1)	5 (0.7)	--	1 (0.1)	11 (1.7)	--
Total Unit 1	--	13 (2)	30 (4.6)	12 (1.8)	5 (0.7)	70 (10.8)	2 (0.3)	25 (3.9)	157 (24)
Unit 2/Level 5	Buried Ap	4 (0.6)	5 (0.7)	3 (0.4)	--	12 (1.9)	--	2 (0.3)	26 (4)
Unit 2/Level 6	Buried Ap	2 (0.3)	6 (0.9)	3 (0.4)	--	20 (3.1)	--	2 90.3)	33 (5.1)
Unit 2/Level 7	Buried Ap	18 (2.7)	14 (2.1)	29 (4.4)	1 (0.1)	45 (7)	1 (0.1)	16 (2.5)	124 (19)
Unit 2/Level 8	Buried B-2	--	2 (0.3)	--	10 (1.5)	--	1 (0.1)	15 (2.3)	--
Unit 2/Backdirt	--	--	1 (0.1)	--	--	--	--	--	1 (0.1)
Unit2/Wall	--	--	4 (0.6)	--	--	6 (0.9)	1 (0.1)	2 (0.3)	13 (2)
Total Unit 2	--	26 (4)	30 (4.7)	37 (5.7)	1 (0.1)	93 (14.4)	2 (0.3)	23 (3)	212 (33)
Unit 4/Level 4	Buried Ap	1 (0.1)	--	--	--	1 (0.1)	--	1 (0.1)	3 (0.4)
Unit 4/Level 5	Buried Ap	7 (1.1)	6 (0.9)	1 (0.1)	--	11 (1.7)	1 (0.1)	11 (1.7)	37 (5.7)
Unit 4/Level 6	Buried Ap	9 (1.4)	8 (1.2)	7 91.1)	2 (0.3)	13 (2)	--	8 (1.2)	47 (7.3)
Unit 4/Level 7	Buried B	--	--	--	--	--	--	1 (0.1)	1 (0.1)
Total Unit 4	--	17 (2.6)	14 (2.2)	8 (1.2)	2 (0.3)	25 (3.9)	1 (0.1)	21 (3.3)	88 (13.6)
STP B/Level 3	Buried Ap	1 (0.1)	--	--	--	1 (0.1)	--	--	2 (0.3)
Total STP B/Level 3	--	1 (0.1)	--	--	--	1 (0.1)	--	--	2 (0.3)
STP C/Level 3	Buried Ap	1 (0.1)	--	1 (0.1)	--	1 (0.1)	--	4 (0.6)	7 (1.1)
Total STP C/Level 3	--	1 (0.1)	--	1 (0.1)	--	1 (0.1)	--	4 (0.6)	7 (1.1)
STP G/Level 3	Buried Ap	3 (0.4)	8 (1.2)	3 (0.4)	--	--	--	2 (0.3)	16 (2)
STP G/Level 4	Buried B	12 (1.9)	20 (3.1)	11 (1.7)	2 (0.3)	25 (3.9)	--	6 (0.6)	76 (11.8)
STP G/Level 5	Buried B	8 (1.2)	5 (0.8)	24 (3.7)	--	16 (2.5)	2 (0.3)	10 (1.6)	65 (10)
Total STP G	--	23 (3.6)	33 (5.1)	38 (5.9)	2 (0.3)	41 (6.4)	2 (0.3)	18 (2.8)	157 (24)
STP H/Level 3	Buried Ap	1 (0.1)	--	2 (0.3)	--	11 (1.7)	--	1 (0.1)	15 (2.3)
Total STP H	--	1 (0.1)	--	2 (0.3)	--	11 (1.7)	--	1 (0.1)	15 (2.3)
Surface	--	2 (0.3)	2 (0.3)	--	--	1 (0.1)	2 (0.3)	--	7 (1.1)
Total	--	84 (13)	109 (16.9)	98 (15.2)	10 (1.6)	243 (37.7)	9 (1.4)	92 (14)	645 (100)

categories (primary/secondary, tertiary, bifacial thinning, pressure, broken/shatter) are represented in the artifact assemblage. The relatively large percentage of primary/secondary, tertiary, and bifacial thinning flakes from the deposits suggests that raw materials were not arriving at the site in a partially finished state. Instead, nodules appear to have been manufactured into complete or nearly complete bifaces at the site. The relatively low number of pressure flakes also suggests that resharpening and/or the creation of expedient tools was not a major task at the site.

Nine flakes (or 1.4% of the artifacts from the buried Ap- and B-horizons) contained evidence of retouch and were probably utilized as expedient tools. Five of these artifacts were recovered from the buried Ap-horizon and four of these artifacts were recovered from the buried B-horizon. Given the relatively low number of retouched flakes at the site, it seems reasonable to suggest that the occupants of the site were not curating lithic raw materials. Instead, given the large amount of chert that was available in the region, the occupants of this site were probably discarding broken objects and manufacturing new ones from locally available materials. As seen in the artifact catalog, five of these utilized flakes were manufactured from primary/secondary flakes and tertiary flakes, two were manufactured from tertiary flakes, and two of these artifacts were manufactured from a piece of lithic shatter. While primary/secondary and tertiary flakes are often reworked into smaller expedient tools, pieces of shatter are less frequently subjected to such activities due to their small size and the morphological characteristics that are associated with such artifacts (O'Dell 1996).

Table 8. Summary of Flake Classes Recovered During the Reconnaissance Survey of the Vroman I Site (NYSM # 10146 and 10148).[1]

Unit/Level	Soil Horizon	Primary/Secondary (%)	Tertiary (%)	Bifacial Thinning (%)	Pressure (%)	Broken (%)	Utilized (%)	Shatter (%)	Total (%)
STP 4/ Level 1	Ap-horizon	1 (2.9)	1 (2.9)	--	--	1 (2.9)	--	--	3 (8.8)
STP 4.1/ Level 1	Ap-horizon	--	--	--	--	1 (2.9)	--	--	1 (2.9)
STP 4.2/ Level 1	Ap-horizon	2 (5.9)	2 (5.9)	1 (2.9)	--	12 (35)	--	11 (33)	28 (82)
STP 5/ Level 1	Ap-horizon	--	--	--	--	--	1 (2.9)	--	1 (2.9)
STP 9/ Level 1	Ap-horizon	1 (2.9)	--	--	--	--	--	--	1 (2.9)
Total	--	4 (11.8)	3 (8.8)	1 (2.9)	--	14 (41.2)	1 (2.9)	11 (33)	34 (100)

1- Information taken from Schafer (1995).

Table 9. Distribution of Flake Classes by Vertical Provenience[1]

Soil Horizon	Primary/ Secondary (%)	Tertiary (%)	Bifacial Thinning (%)	Pressure (%)	Broken (%)	Utilized (%)	Shatter (%)	Total (%)
Ap-horizon Deposits	62 (12.9)	81 (16.9)	60 (12.6)	6 (1.3)	176 (36.9)	5 (1.0)	87 (18.2)	477 (100)
B-horizon deposits	22 (13.1)	28 (16.6)	38 (22.6)	4 (2.4)	67 (39.8)	4 (2.4)	5 (3)	168 (100)
Total	84 (13)	109 (16.9)	98 (22.8)	10 (1.6)	243 (37.7)	9 (1.4)	92 (14.3)	645 (100)

1-Percentage equals the percentage of artifacts per soil horizon. Artifacts total includes artifacts recovered both from units and STPs.

In addition to these nine utilized flakes, eight "blade-like" or "elongated" flakes (Lowery and Custer 1990) were also recovered from the buried Ap-horizon (see Photograph 8). These artifacts range in size from 3.5–4.0 centimeters (1.4–1.6 inches) long and are 1.5–1.7 centimeters (0.6–0.7 inches) wide. The majority of these artifacts have been manufactured from gray Onondaga chert with approximately 63% (or five) of these artifacts exhibiting evidence of retouching along the dorsal surface of the artifact. Fifty percent of these expedient tools contain cortex along the dorsal surface, suggesting that they were produced during the initial stage of core reduction. The large core of chalcedony that was recovered from the Ap-horizon in Unit 2 contains a long negative flake scar on the surface of the artifact, supporting the hypothesis that larger cores represent at least one source material for these flakes. In the absence of more detailed analysis, the exact use and function of these objects cannot presently be ascertained; however, references in Lowery and Custer (1990:93) and Brumbach (1978) suggest that similar artifacts have been found at sites located on the floodplains of smaller waterways. The appearance of these artifacts along these waterways suggests that these types of artifacts may be associated with fishing and/or other material processing activities. Presently, these types of artifacts have not been reported at other prehistoric floodplain sites in the Schoharie Valley (e.g., Rieth 1998; Ritchie and Funk 1973) and may indicate that a different set of activities was being performed at the Vroman I Site.

Preliminary analysis of these expedient tools using a binocular microscope at a magnification of 10x failed to identify any conclusive evidence of polish or residue on these artifacts. Several of these flakes contain small striations along the interior surface and may be indicative of the use or function of these artifacts. However, before more comprehensive statements concerning the use of these objects can be made, microscopic analysis (e.g., residue analysis, use-wear analysis) needs to be completed.

Spatially, there does not appear to be a significant difference between the artifacts that were recovered from the Ap-horizon and the B-horizon. As seen in Table 9, roughly equal quantities of primary/secondary flakes, tertiary flakes, pressure flakes, broken flakes, and utilized flakes were recovered from the site. The most significant differences appear in the number of bifacial thinning flakes and pieces of shatter that were recovered from each of these soil horizons. Presently, it is not known whether these differences represent differences in the use of these artifacts or whether this

difference represents the vertical movement of smaller flakes via natural processes.

Over 95% of the flakes that were recovered from the site were manufactured from gray Onondaga chert. Several chert outcrops are located within 8.1 kilometers (5 miles) of the project area, with the most prominent outcrops located 0.81 kilometers (½ mile) from the project area at Terrace Mountain. Terrace Mountain is described in Ritchie and Funk (1973:125) as a high ridge of Onondaga limestone with veins of gray Onondaga chert appearing in outcrops along the east and west sides of this feature. In their description of this feature, Ritchie and Funk (1973:125) also indicate that several "aboriginal quarries have been reported…on the east side of the hill."

In addition to Onondaga chert, other raw materials were also utilized by the occupants of this site. Approximately 4% of the flakes that were recovered from the Vroman I Site were manufactured from Normanskill chert. According to Hammer (1976:52), outcrops of Normanskill chert generally outcrop in the northern and central Hudson Valley and produce materials that range in color from green to black to bluish green. A large chalcedony core was also recovered from the buried Ap-horizon of Unit 2. This artifact measures approximately 6 centimeters (2.4 inches) in diameter and contains several narrow flake scars along the dorsal surface (see Photograph 8). According to Van Driver (1985), chalcedony does not regularly outcrop in the Schoharie Valley and like Normanskill chert may have been carried into the Schoharie Valley from the adjacent Hudson Valley. As discussed in the Background section of this report, access to resources in the adjacent Hudson Valley may have been facilitated by the use of one or more footpaths that linked the Schoharie Valley with western Albany County and the larger Hudson Valley region. Evidence of long-distance interaction is also suggested by the recovery of a (possible) piece of jasper from the interface of the fill and buried Ap-horizon. Jasper is not readily available in the Schoharie Valley and may represent interaction with contemporaneous groups living to the south in Pennsylvania and/or the larger Middle Atlantic Region. The method of tool manufacture that was utilized by the occupants of the Vroman I Site undoubtedly involved the heat treatment of chert. Approximately 1.8% of the artifacts recovered from the buried Ap- and B-horizons exhibited evidence of heat treatment. Although many of the artifacts contained potlids, other objects contained a reddened surface that may also indicate the heat treatment of artifacts. With the exception of pressure flakes, each of the major flake categories contains evidence of heat-treatment, suggesting that the heat treatment of lithic materials was not limited to a single reduction stage but rather occurred throughout the reduction process (Callahan 1979).

The prehistoric artifacts that were recovered from the fill deposits in Units 1–5 and STPs G and H resemble the artifacts that were recovered from the buried Ap- and B-horizons. The majority of these artifacts (over 90%) consist of small chert flakes. Like the flakes that were recovered from the Ap- and B-horizons, the flakes that were recovered from the fill deposits are characterized by a diverse array of reduction stages, including primary/ secondary, tertiary, bifacial thinning, and lithic shatter. In addition to these artifacts, one small side scraper and three small bifaces were also recovered from these fill deposits. These artifacts resemble the chipped stone tools recovered from the buried Ap- and B-horizons both in terms of the types of materials that were used for their production and the size of the objects. All of these artifacts were manufactured from gray Onondaga chert, and most of the artifacts ranged from 1–3 centimeters (0.39–1.2 inches) in diameter.

Historic Artifacts

Six hundred and fifty-six historic artifacts were recovered from the buried Ap- and B-horizons of the Vroman I Site. Four hundred and fifty-six (or 69.5%) artifacts were architectural remains, 71 (10.8%) were domestic remains, five (1%) were personal remains, and 124 (19%) were miscellaneous remains. As discussed below, these artifacts are believed to be associated with the c. 1820–1900 occupation of the property by the Snyder, Fischer, Dietz, and Cary families.

1. *Architectural Remains*. Four hundred and fifty-six architectural remains were recovered from the buried Ap- and B-horizons at the Vroman I Site (Table 10). The majority are small brick fragments and nails. The brick fragments that were recovered from the site are primarily unidentified fragments that were probably associated with one or more chimneys or fireplaces that were present in MDS 1. Approximately 10% of the brick fragments were handmade and may represent local manufacture. Nearly 2% of the brick fragments were also identified as machine-made. Since so few brick manufactories were located in Schoharie County during the nineteenth century, the presence of these artifacts at the site is probably associated with the Snyder, Fischer, Dietz, and Cary families' participation in a larger regional economy.

One hundred fifty-four nail fragments were recovered from the site. Eight of these artifacts consist of wrought iron T-head (1790–1835), Rose-head (pre-1820), and unidentified (pre-1820) nails. During and immediately after the American Revolution, T-head and Rose-head nails were produced in the Northeast. Following the introduction of machine-made nails at the end of the eighteenth century, hand-wrought nails continued to be used in conjunction with machine-

Table 10. List of Architectural Remains Recovered from the Buried Ap- and B-Horizons at the Vroman I Site (NYSM # 10146 and 10148).

Material Class	Artifact Type	# of Artifacts	Dates of Use
Asphalt Roofing Fragment	--	1	--
Brick	Handmade	15	--
	Machine-made	2	--
	Unidentified	132	--
Cement	--	1	--
Flat (Window) Glass	Aqua flat glass	49	--
	Clear flat glass	3	--
Mortar	--	56	--
Nails	Machine cut	57	1835+
	Square cut	58	--
	Unidentified	10	--
	Wire	21	1875+
	Wrought Iron, Rose-head	4	pre-1820
	Wrought Iron, T-Head	1	1790–1835
	Wrought Iron, Unidentified	3	pre-1820
Plaster	--	3	--
Screw	--	4	--
Spike	--	4	--
Staple	--	3	--
Strapping	--	1	--
Unidentified Iron/Steel	--	23	--
Unmodified Stone	Slate	1	--
Washer	--	1	--
Other	Aluminum tube	1	--
	Nut	1	--
	Rivet	1	--

cut nails due to their decorative nature. After the first two decades of the nineteenth century, T-head and Rose-head nails were replaced by machine-cut nails, which gradually increased in use throughout the nineteenth century. Given the early date of these objects, it seems reasonable to believe that they are associated with the initial construction of MDS 1 by Peter Snyder in 1817. Wrought iron Rose-head and T-head nails were also recovered from the fill layer (Level 4) in Unit 1 and suggest that portions of the original 1817 structure remained intact at the time of its destruction.

Fifty-seven machine-cut nails were recovered from the Vroman I Site. Machine-cut nails first appeared at the beginning of the nineteenth century and were regularly available after 1835. The large number of machine-cut nails at the Vroman I Site suggests that the post 1835 occupants of the property (especially the Fisher and Dietz families) were making modifications to MDS 1. One possible modification could be related to the enlargement of the household during the occupancy of Jacob Fisher. As seen in Table 1, the Fisher household contained 12 members. Alterations to MDS 1 may have included enlarging of the residence and/or the creation of more rooms to meet the needs of this growing family.

Twenty-one wire nails were also recovered from the site. According to Nelson (1968), wire nails were not regularly used until 1875 and are probably associated with repairs made to the property during or after the Adam Hager and Henry Cady occupancy.

Fifty-eight square nails were also recovered from the Vroman I Site. These artifacts commonly occur on sites dating to the early and mid-nineteenth century and are probably associated with the occupation of the property by the Snyder, Fisher, Dietz, and/or Cady families. The large number of artifacts also suggests that the original 1817 building was continuously being modified throughout the nineteenth century in order to meet the changing needs of the property's occupants.

Fifty-two pieces of flat window glass were recovered from the non-fill deposits at the Vroman I Site. Forty-nine (94.2%) artifacts were identified as aqua window glass and 3 (5.7%) artifacts were identified as clear window glass. Although both types of window glass appear to have been available to the occupants of the site, the overwhelming majority of aqua glass suggests that the occupants of this site exhibited a clear preference for aqua window glass. Presently, it is not known whether this preference was associated with the cost of such materials or whether this is related to the preferences of the middle-class occupants of the site (Fritts 1999).

A large piece of slate was also recovered from the property and may indicate that the original building contained a slate roof. According to Larkin (1987),

slate was commonly used as a roofing material during the first half of the nineteenth century. The recovery of an asphalt roofing fragment from the site suggests that the slate roof of MDS 1 may have been replaced or covered up during the twentieth century.

Three modern architectural remains were recovered from the buried Ap-horizon. These artifacts consist of a small aluminum tube, a nut, and a rivet. These artifacts are probably associated with the twentieth-century occupation of the property and were probably deposited during the removal of MDS 1 in 1997.

2. *Domestic Artifacts*. Seventy-one domestic artifacts were recovered from the buried Ap- and B-horizons at the Vroman I Site. These artifacts consist of a diverse array of household artifacts, including ceramic vessel fragments, glass bottle fragments, and pieces of stemware. As discussed in the Site Structure section of this report, the largest number of domestic remains were recovered from the east lawn of MDS 1.

Ceramic sherds representing at least 47 vessels were recovered in the buried Ap- and B-horizons at the Vroman I Site. Although the majority of these artifacts date to the late eighteenth- and early-mid nineteenth century occupation of the property by Peter Snyder, Jacob Fisher and Jacob Dietz, a small concentration of undecorated ironstone sherds was also recovered and is probably associated with the mid/late nineteenth-century occupation of the property by the Jacob Dietz or Henry Cady families. Table 11 summarizes the ceramic vessel forms that were identified in the buried Ap- and B-horizons at the Vroman I Site.

The ceramic vessels that were recovered from the Vroman I Site can be assigned to three functional types: utilitarian wares and redwares, refined earthenwares, and porcelain. As seen in Table 11, only one porcelain vessel was recovered from the buried Ap- and B-horizons at the Vroman I Site. Although this artifact could not be identified as to its form, the thickness and shape of the object suggests that this artifact may have been part of a teacup or a small bowl. Since porcelain tablewares and teasets were available throughout the nineteenth century, the porcelain artifact that was recovered from the Vroman I Site cannot be specifically assigned to one of these four households. However, because these types of containers were expensive during the eighteenth and nineteenth centuries, we can infer that regardless of which household owned the artifact, this object was probably not used for everyday consumption but rather for entertaining or in social situations in which it was important for individuals to reflect their social standing within the community (Wall 1999).

Table 11. List of Identifiable Ceramic Forms Recovered from the Buried Ap- and B-Horizons at the Vroman I Site (NYSM # 10146 and 10148).

Ceramic Type	Decoration	# of Vessels	Identified Vessel Form(s)	Dates
Creamware	Undecorated	4	Base	1762–1820
Ironstone	Undecorated	6	Base, Hollowware body, Flatware Rim	1813–1885
Pearlware	Undecorated	7	Base	1780–1830
	Blue Transfer-printed	1	*	1780–1830
	Green edge-decorated	1	Flatware rim	1780–1830
	Underglaze-blue hand-paint	1	Teacup rim	1780–1830
Porcelain	Undecorated	1	*	--
Redware	Brown-glazed	5	Hollowware body (Probable Teapot)	--
Stoneware	Gray salt-glazed, slipped		Crockpot type bowl	--
	Gray salt-glazed, Albany slip	1	Hollowware body	--
	Gray salt-glazed, unslipped	1	*	--
	Brown glazed[1]	1	Hollowware	--
	Buff salt-glazed, brown slip	1	Hollowware	--
Whiteware	Molded	1	*	1845–1885
	Flow blue	1	Hollowware	1835–1870
	Blue edge-decorated	1	Plate rim	1830–1860
	Blue transfer-printed	2	Plate rim	1835–1865
	Red transfer-printed	1	*	1825–1875
	Undecorated	9	Base	1820–1900
	Undecorated	1	*	--
Unidentified	--	1	*	--

* - Unidentified form; 1- Sherd consists of a fine brown stoneware fragment

Thirty-five vessels were identified as small refined earthenware containers, with creamware (1762–1820), pearlware (1780–1830), whiteware (1820–1900), and ironstone (1813–1885) containers represented in the assemblage. Preliminary analysis of these artifacts suggests that these containers represent a variety of forms, including plates, hollowware, teacups, and pieces of flatware (Table 11). As discussed below, the predominance of refined earthenwares at the site suggests that the occupants of the Vroman I Site were probably members of the growing middle class and sought to convey this middle-class standing to their neighbors through the selection of appropriate tablewares and serving dishes.

The creamware (1762–1820) and pearlware (1780–1830) containers are probably associated with the c. 1790–1830 occupation of the property by Peter Snyder. According to Majewski and O'Brien (1987), pearlware containers were manufactured in England for American markets between 1780 and 1830. The pearlware containers that were recovered from the Vroman I Site are found in both decorated and undecorated forms. Despite the small sample, at least three different patterns are represented in the assemblage and may indicate the presence of three different sets of dishes among the household's occupants.

Two of the pearlware containers possessed maker's marks that may be associated with the William Adams & Sons (Potters) Ltd pottery. According to Godden (1964:21–23), William Adams and Sons manufactured vessels for a variety of English potters, including those at Greengates, Tunstall and Stoke, and Staffordshire between the years 1769–1879. One of the artifacts that contains this maker's mark was recovered from the buried Ap-horizon in Unit 1 and contained the letters "…MS". The second vessel consisted of a small pearlware base with the maker's mark "…NS". The sherd is fragmentary and the inscription probably read "…MS". A third vessel from the Adams pottery was also recovered from the fill deposits in Unit 1. The recovery of several containers from the Adams pottery suggests that the Snyder family may have been purchasing some of their wares in matched sets. According to Wall (1999), the ability to purchase vessels in matched sets is an attribute that is commonly associated with the middle-class occupants of New York. Furthermore, since these artifacts were not locally manufactured by the occupants of the Vroman I Site or within the larger Town of Schoharie, their presence at the Vroman I Site suggests that the site's occupants were participating in a larger regional economy in which foreign manufactured goods made their way inland from markets situated along the eastern seaboard.

Sixteen whiteware vessels were identified at the Vroman I Site, and most of these containers are probably associated with the c. 1840–1870 occupation of the property by Jacob Fischer and Jacob Dietz. Whiteware was not readily available in American markets until the 1830s. These vessel fragments are found in a variety of forms, with flatware and hollowware containers being the most common forms identified at the site. Although several of these containers are undecorated, a substantial proportion of these vessels were decorated with transfer-print, hand-painted, edge-decorated, molded, flow, and/or glazed floral motifs. According to Fritts (1999), leaf and floral motifs are often found on mid/late nineteenth-century table and glasswares since they not only reflect changing preferences away from plain creamware and pearlware but also signaled the acceptance of middle-class values about the structure and organization of domestic life. Like the pearlware and creamware containers, these containers are generally decorated with red or blue patterns and are made to look like matched sets of dishes. Since these artifacts would not have been locally produced, their appearance on the site also represents participation in a regional economy.

Six undecorated ironstone vessels were recovered from the site and are probably related to the c. 1855–1883 occupation of the property by Jacob Dietz and Henry Cady. According to Wetherbee (1985), undecorated ironstone containers were manufactured for American markets between 1840 and 1880. During this time period, English potters had perfected the construction of these containers so that they were highly durable, inexpensive, and could be mass produced for a growing clientele in the United States. Due to the low cost of ironstone, vessels could be purchased in matched sets, as evidenced by the hollowware and flatware containers at the Vroman I Site.

According to Majewski and O'Brien (1987) and Spencer-Wood and Heberling (1987), undecorated whiteware and ironstone are most often associated with mid-/late nineteenth-century households and reflect changes in middle-class preferences away from decorated whitewares. Fritts (1999:58) makes a more symbolic argument, stating that these types of dishes became popular during the mid-/late nineteenth century since the "lack of colorful and ornate decoration upheld the notions of thrift and modesty, two values [that the] middle class…[often associated]…with morality and Christianity."

Nine utilitarian wares were also identified at the site and included the following ceramic types: gray salt-glazed stoneware, brown-glazed redware, and brown-glazed fine brown stoneware fragments (Table 11). The majority of these artifacts consist of small hollowware containers that were associated with food preparation and/or storage activities. The presence of a thick interior glaze on some of these containers

suggests that these containers may have been used to hold liquids and/or to prepare non-solid foods such as stews and potages. The heavily worn base of these vessels and the scratch marks around the interior rims of the containers suggest that these objects were regularly used and were not reserved for special occasions. At least one black-glazed redware vessel is represented in the assemblage and is probably part of a teapot that was owned by the wife of Peter Snyder, Sophia Fisher, Sarah Dietz, or Catherine Cady. When looked at in association with the teacup fragments, this vessel may have been a valued item that was used in the preparation of tea for evening dinners and afternoon teas.

One unidentified vessel was also recovered and could not be assigned to a particular artifact vessel category or artifact type due to its poor preservation. Given the soft paste of the artifact, it is reasonable to suggest that the object may have been a piece of porcelain.

Twenty-two bottle fragments, canning jars, and glass tableware fragments were also recovered from the Ap-horizon at the Vroman I Site. Although the majority of these artifacts consist of small unidentified bottle fragments, five bottles are large enough to be assigned to a particular use or function. The first bottle consists of a small square medicinal bottle. This bottle contains the inscription "...oil..." and is aqua in color (Photograph 9). Although the bottle's manufacturer could not be identified, similar bottles described in Fike (1987) suggest that the bottle may have been used to hold an oil-based medicine such as castor oil.

A small Vaseline jar was recovered from the buried Ap-horizon in Unit 2 (see Photograph 9). According to Fike (1987:184), these jars generally measured 7.3 centimeters x 4.12 centimeters (2 7/8 inches x 1 5/8 inches) and were manufactured by the Chesebrough Company of New York. The jar contains a threaded lip around the top of the container. According to Jones and Sullivan (1989:81), jars with threaded lips did not appear until the mid-1850s, suggesting that the artifact was probably used by the Jacob Dietz or the Henry Cady households.

The third bottle consists of a small medicine bottle see (see Photograph 9) and was recovered from the Ap-horizon in STP 9.2. Although the majority of the mottle is missing, the rim of the container has the inscription "Cal...S..." and probably refers to its manufacture by the California Fig Syrup Company. According to Fike (1987:225), these types of bottles were generally manufactured to hold fig syrup, a common medicinal product during the late nineteenth century. This product was first introduced in 1878 by W. Penniger and R. Queen. By 1880, the company had relocated to San Francisco and the name of the product was changed to Ca Li Fig. Bottles produced after that time bear this logo instead of the logo identifying the California Fig Syrup Company. Like the perfume bottle, discussed below, this bottle is probably associated with the household of Henry Cady and when combined with the aforementioned bottles may indicate that one or more members of the Cady household were suffering from an undetermined illness.

A small perfume bottle was recovered from the Ap-horizon of STP # 9.2 (see Photograph 9). This bottle was manufactured from amethyst glass and measures 10.5 centimeters (4.1 inches) long and contains a maximum width of 2.9 centimeters (1.1 inches). This artifact contains exterior embossing and appears to have been semi-automatic machine made. Since the artifact is manufactured from amethyst bottle glass, the object was probably manufactured between 1880 and 1914 and probably belonged to Catherine Cady.

Two green canning jar fragments were also recovered from the buried Ap-horizon at the Vroman I Site (see Photograph 9). Both of these artifacts are believed to belong to the same vessel and may have contained a lightning-type closure. According to Jones and Sullivan (1989:187), lightning closures were not introduced until the late 1870s. Given this date, these artifacts are probably associated with the household of Henry Cady and were probably used to can locally produced fruits and vegetables.

3. *Personal Artifacts*. Five personal artifacts were recovered from the buried Ap-horizon at the Vroman I Site. Four of these artifacts consist of kaolin pipe bowl and stem fragments, and one artifact consists of a small metal button. Given the number of pipes that were recovered from the Vroman I Site, it appears as if smoking was an important leisure activity among the nineteenth-century occupants of this site. Studies of the use of smoking pipes during the nineteenth century (e.g., Cook 1989) suggest that pipes were not haphazardly selected but rather were purchased to reflect the ethnic, material, and social relations of the user. Like ceramic vessels, the selection of a particular pipe could be used as a symbol of the household's identity and as a measure of the family's middle-class standing within the community. Although the majority of these artifacts are undecorated, one pipe bowl contains a thistle decoration around the rim and may either indicate the pipe's manufacture in Scotland (Hume 1991) or the occupant's ethnic heritage.

Photograph 9. Domestic Artifacts Recovered from the Vroman I Site. Top, ceramic vessel sherds were recovered from the Vroman I Site including plain and decorated ironstone/whiteware fragments and pieces of porcelain. Bottom, aqua medicinal bottle (inscription reads "…oil").

A small metal button was recovered from the buried Ap-horizon of Unit 4. This artifact measures 2 centimeters (0.75 inches) in diameter and contains a loop shank. Similar buttons are illustrated in Hume (1991) and suggest that this button probably dates to the nineteenth century. Due to the absence of decorative attributes and other diagnostic characteristics, the button cannot be assigned to a more specific time period or particular household.

4. *Miscellaneous Remains*. One hundred and twenty-four miscellaneous remains were recovered from the Vroman I Ste. The largest number of these artifacts consisted of bone and shell fragments as well as pieces of coal and cinder. Smaller quantities of slag and lamp glass as well as a portion of a metal pail and a horseshoe nail were also recovered from the site. Seventeen shell fragments were recovered from the Vroman I Site. Fourteen of these artifacts consist of clam shell fragments and three artifacts consist of oyster shell fragments. Both of these items are not native to Schoharie County and probably represent participation in a regional economy and were probably transported into the Schoharie Valley via the Schoharie Valley Railroad.

Twenty-one bone fragments were recovered from the Vroman I Site. The majority of these bone fragments were probably from cows and pigs. Faunal remains from the fill layer suggest that chickens and other small animals may have also been slaughtered. According to Huelsbeck (1991), serving of meat cuts in individual portions was usually practiced by more affluent households while communal stews and potages were more commonly eaten by working class households. Preliminary analysis of the cut marks on these bone fragments suggests that the occupants of the Vroman I Site probably served meat both in individual portions as well as in communal stews and potages. Evidence of serving meat in individual portions is represented in the presence of smaller sawed bones (Photograph 10, upper right), and the presence of larger uncut bones is suggestive of use in communal dishes. The presence of both of these items at the site suggests that the occupants of the Vroman I Site were simultaneously conforming to middle-class notions of food preparation while at the same time attempting to save money by supplementing the consumption of more expensive meat cuts with less expensive meat cuts.

Three hundred and twelve pieces of coal, cinder, and slag were recovered during the site examination. The presence of these artifacts at the site suggests that the nineteenth-century occupants of the Vroman I Site had adopted more efficient mechanisms for heating their homes. Prior to construction of the Schoharie County Railroad, the occupants of the Schoharie Valley probably relied on wood to heat their homes. Following the construction of roadways and the Schoharie Valley railroad through the region, the occupants of the Vroman I Site appear to have made the transition from wood to coal for heating and

Photograph 10. Miscellaneous Artifacts from the Vroman I Site including cut and uncut bone fragments.

cooking. The large amount of coal found at the site suggests that by the end of the nineteenth century, the occupants of the site had become dependent upon participation in an industrialized regional economy in order to acquire enough coal to meet their basic household needs.

Site Structure

The site examination of the Vroman I Site produced prehistoric and historic artifacts in each of the test units and in STPs A–E. In addition, 11 of the STPs excavated during the reconnaissance survey also produced artifacts (Schafer 1995). The largest number of artifacts was recovered from the buried Ap-horizon. As previously discussed in the Artifact Analysis section, 1,099 artifacts were recovered from the buried Ap-horizon and 41 artifacts were recovered from the buried B-horizon. In addition, 701 artifacts were recovered from the first two fill layers. An additional 550 artifacts were recovered from the STPs and the surface survey of the site.

Four hundred and fifty prehistoric artifacts were recovered from the non-fill deposits in Units 1–5 and an additional 262 prehistoric artifacts were recovered from STPs A–H and STPs 4–9.4. As seen in Figure 9 (as well as Table 4), the largest number of prehistoric artifacts was recovered from the southeastern portion of the site, with Unit 1 producing 157 artifacts, Unit 2 producing 202 artifacts, and Unit 4 producing 89 artifacts. Unit 3 failed to produce any prehistoric artifacts in the buried Ap- or B-horizons, and Unit 5 produced one flake in the buried Ap-horizon. In general, the STPs that were excavated during the reconnaissance survey and the site examination produced smaller quantities of artifacts. However, STP G produced an exceedingly high number of prehistoric artifacts (n=165), suggesting that the unit may be located in a prehistoric activity area. This assertion is supported by the diverse array of artifacts recovered from the unit (e.g., small core fragment, utilized and non-utilized flakes, a broken biface, a pitted stone).

The prehistoric deposits at the Vroman I Site appear to be contained south of the gravel driveway leading to Structure N_1. Only two flakes were recovered from the north side of the driveway, with one flake found in the buried Ap-horizon in Unit 5 and one flake recovered from the Ap-horizon of STP 9. In general, the highest concentration of prehistoric artifacts appeared to located along the southeastern corner of the site in Units 1, 2, and STP G. Units located closer to MDS 1 generally produced lower quantities of artifacts.

Prehistoric artifacts were recovered from both the buried Ap-horizon and the buried B-horizon. The largest number of artifacts was recovered from the buried Ap-horizon. Although more than 97% (n=477) of the artifacts from this stratigraphic level included utilized and non-utilized flakes, other artifacts, including biface fragments, a projectile point tip, lithic cores, a piece of fire-cracked rock, and several elongated flakes, were also recovered. Although this stratigraphic layer cannot presently be conclusively identified, the recovery of a small Woodland-like projectile point tip suggests that the site may date to the Woodland period. Smaller quantities of artifacts were recovered from the buried B-horizon. One hundred and sixty-eight utilized and non-utilized flakes, a small pitted stone, a biface fragment, and several core fragments have been recovered from this stratigraphic level. Several pieces of charcoal have also been recovered and may suggest that one or more features remain intact at the site. No diagnostic artifacts have been recovered from the B-horizon, and these artifacts cannot currently be assigned to a particular time period or cultural tradition.

Six hundred and fifty-six historic artifacts were recovered from the non-fill deposits at the Vroman I Site. The largest number of historic artifacts was recovered from the eastern yard of MDS 1. As seen in Figure 10, the non-fill deposits in Units 1–2 and 4–5 produced between 45 and 351 artifacts. Only Unit 3 failed to produce historic artifacts in the buried Ap- and B-horizons. Six hundred and forty-seven historic artifacts were recovered from the buried Ap-horizon and nine historic artifacts were recovered from the buried B-horizon. As previously discussed, the artifacts recovered from the buried B-horizon were probably deposited through natural processes and do not represent a separate historic-period occupation level at the site.

The largest number of historic artifacts was recovered from the eastern yard of MDS 1 in Units 1, 2, and 4. Each of these units produced between 133 and 351 artifacts in the Ap- and B-horizons. The quantity of artifacts recovered from the northern yard of the site in Units 3 and 5 was much lower, with Unit 5 producing only 45 artifacts. The difference in the number of artifacts recovered from these two yard areas suggests two things. First, despite plowing, the horizontal patterning of the site appears to be intact and artifacts do not appear to have been moved far from their original spot of deposition. If plowing had substantially moved these artifacts around the site, we would expect the number of artifacts to be more equally distributed across the plowed portion of the site. Second, the occupants of the Vroman I Site appear to have selected particular areas of the property as "refuse disposal" areas. Within the current project limits, these areas appear to be located close to the primary residence (MDS 1) and away from other farm buildings (e.g., MDS 3).

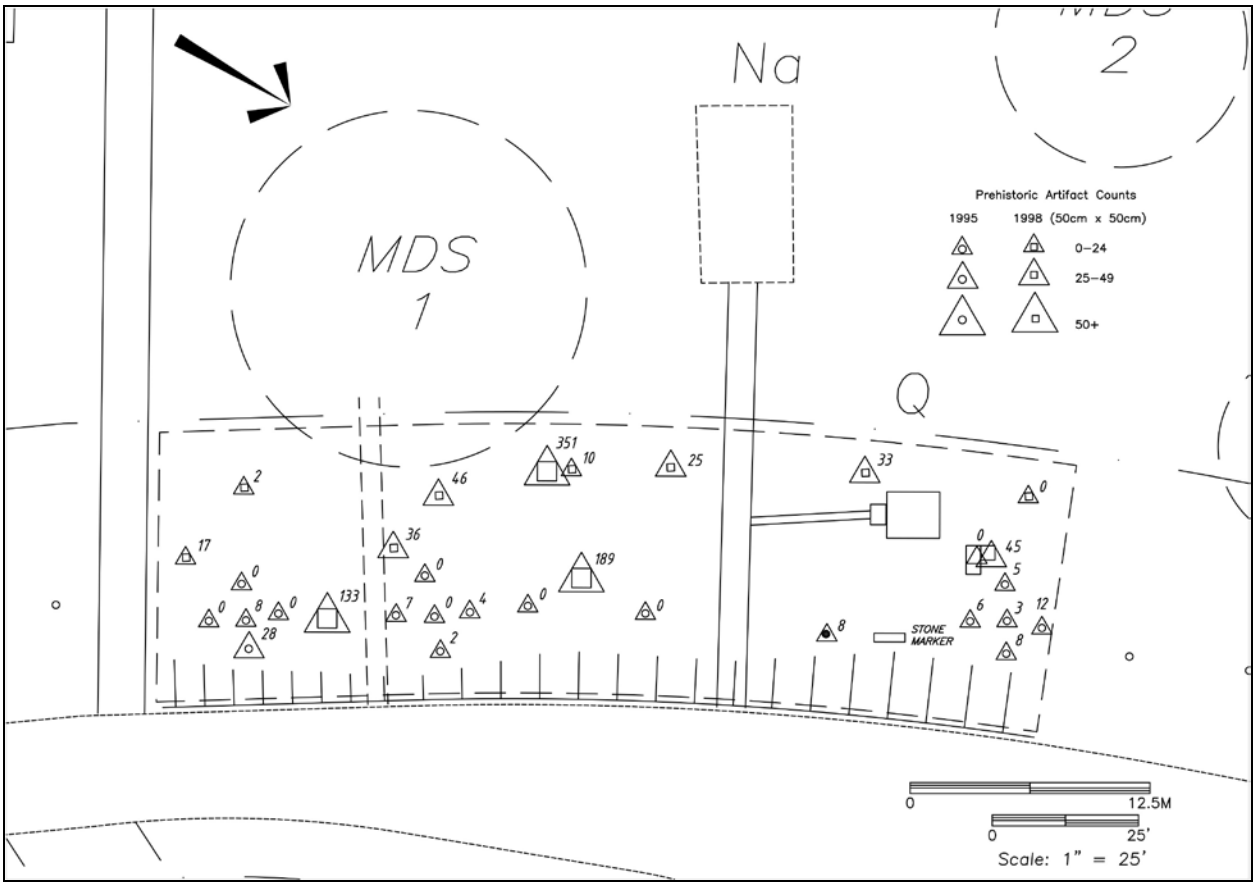


Figure 9. Spatial Distribution of Prehistoric Artifacts at the Vroman I Site.

When the types of artifacts recovered from these two yard areas are compared, the early/mid-nineteenth-century and the mid-/late nineteenth-century occupants of the Vroman I Site may have also utilized different parts of the site for disposing of refuse. The eastern yard (area around Units 1, 2, and 4, STPs A–D, G–H, and 4–7) contained a large quantity of early/mid-nineteenth-century artifacts, including pearlware (c. 1780–1830), creamware (1762–1820), wrought iron nails (pre-1820), machine-cut nails (1835+), undecorated whiteware (1820–1900), and red and blue transfer-printed whiteware (1835–1860). As discussed in the artifact analysis section of this report, the northern yard (around STP 8–9.4, STP F, Units 3 and 5) produced very few artifacts dating to the first half of the nineteenth century. Instead, most of the artifacts recovered from the northern yard of the Vroman I Site date to the late nineteenth century and include such diverse remains as an amethyst perfume bottle (1880–1914), a circa 1878–1800 California Fig Syrup medicine bottle, an aqua fruit/canning jar with a lightning closure (1870+), undecorated ironstone ceramic fragments, and wire nails (1875+). Use of these different areas is probably not coincidental but rather reflects changes in nineteenth-century ideas about sanitation (Schlereth 1991) and the use of the surrounding landscape.

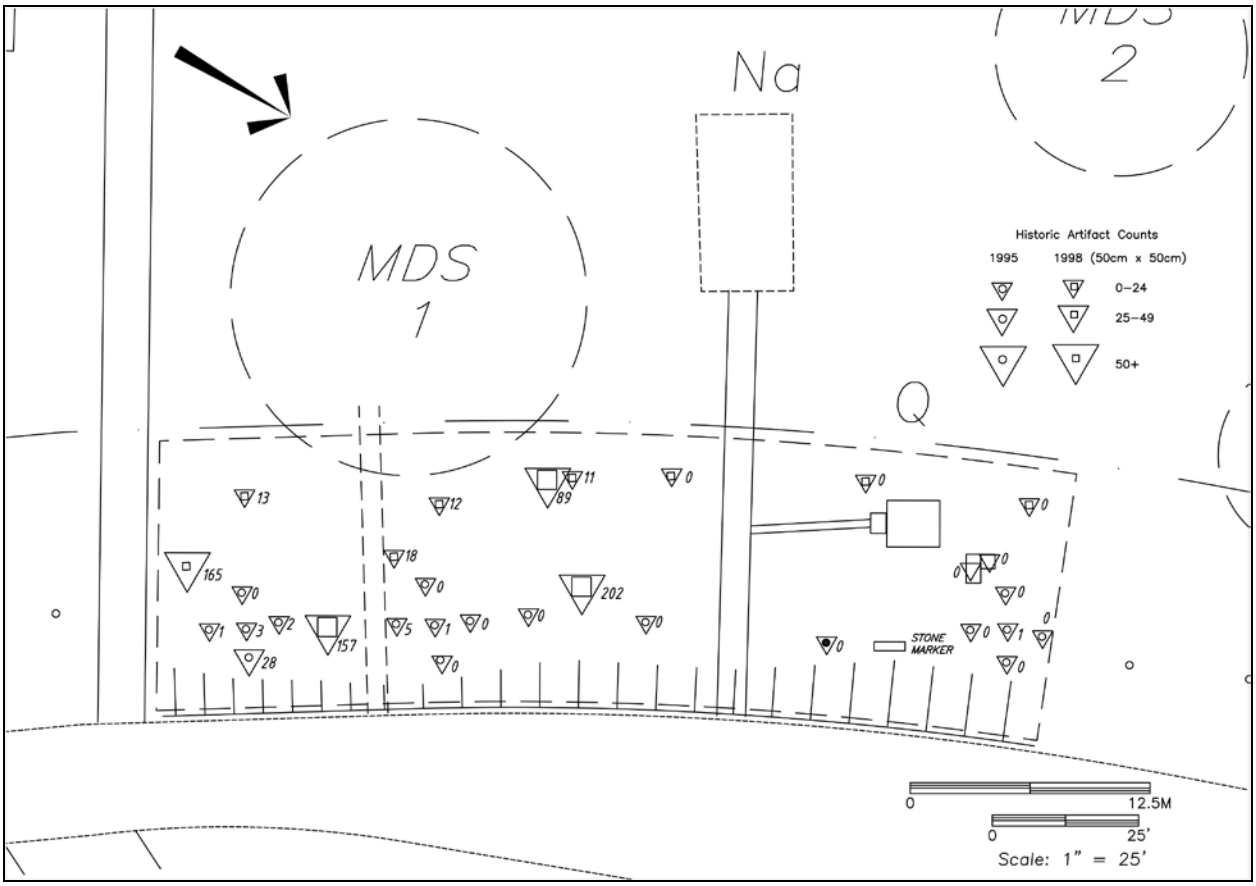


Figure 10. Spatial Distribution of Historic Artifacts at the Vroman I Site.

Site Interpretation

Site Age

The Vroman I Site consists of a small multi-component site located along the north bank of Fox Creek. The prehistoric occupation of the site is currently assigned to the Transitional and Early Woodland Periods. The recovery of a small triangular point by the current landowner and the recovery of a projectile point tip during the site examination is suggestive of the Early Woodland Meadowwood points found in the Schoharie Valley. In addition, the recovery of artifacts in the buried B-horizon at the site suggests that a second prehistoric component may also be present at the site and may be representative of an earlier Transitional Period occupation.

The historic artifacts that were recovered from the site are believed to date to the c. 1820–1900 occupation of the property by the Peter Snyder, Jacob Fisher, Jacob Dietz, and Henry Cady families. As indicated by the types of artifacts that were recovered from the site, the site does not appear to contain deposits associated with the earlier (pre-1780) occupation of the property by Jacob Snyder. Deposits associated with the twentieth-century occupation of the property were also not identified during the site examination.

Site Function and Relationship to Local and Regional Context

The 1998 site examination identified both a prehistoric and historic component at the Vroman I Site. The prehistoric component consists of at least one small residential encampment, and the historic component consists of deposits associated with the nineteenth-century occupation of the property by the Peter Snyder, Jacob Fisher, Jacob Dietz, and Henry Cady families.

1. *Prehistoric Occupation*. Evidence of the prehistoric occupation of the Vroman I Site is demonstrated by the recovery of 959 prehistoric artifacts from the site. Two hundred and forty-seven artifacts were recovered from the first two fill layers in Units 1–5 and represent secondary deposits that were gathered from an undetermined area located on the west side of MDS 1. Four hundred and fifty artifacts were recovered from the buried Ap- and B-horizons

in Units 1–5. Two hundred and sixty-two artifacts were also recovered from the non-fill and fill deposits in STPs 4–9.4 and STPs A–H. Sixty-two artifacts from these STPs were recovered from the fill deposits, and 200 artifacts were recovered from the buried Ap- and B-horizons. In total, 309 artifacts were recovered from the fill deposits, 481 artifacts were recovered from the buried Ap-horizon, and 169 artifacts were recovered from the buried B-horizon.

The artifacts that were recovered from the buried Ap-horizon include 62 primary/secondary flakes, 81 tertiary flakes, 60 bifacial thinning flakes, 263 broken flakes and pieces of shatter, six pressure flakes, five utilized flakes, one projectile point tip, and two broken bifaces. One piece of fire-cracked rock was also recovered from the site and may indicate that one or more features are present within the project limits. Although the broken projectile point cannot conclusively be assigned to a particular temporal period or cultural tradition, the shape of the tip resembles that of other Early Woodland points (Ritchie 1994) and suggests that a portion of the site may have been occupied sometime between 1300 B.C. and A.D. 200. As discussed in the Archaeological Methods section, the chipped stone tools and the flakes that were recovered from the Vroman I Site were analyzed according to Magne's (1985) assemblage formation model. Based upon the recovery of incomplete and complete bifaces, along with a diverse array of flakes, the deposits that are located within the Ap-horizon are believed to be associated with the occupation of the site as a small residential camp. The extent of the site, the possible presence of features, and the large number of artifacts recovered from this stratigraphic layer also support this assertion. The recovery of several small elongated flakes (possibly associated with the processing of fish and other aquatic resources) suggests that this portion of the site may have been occupied during the spring-summer-fall months.

The reduction of small lithic cores into complete or nearly complete tools appears to have been an important activity at the site. The large number of chert flakes combined with the large amount of cortical and non-cortical debitage suggests that the occupants of the site were bringing larger cores to the site to be worked into small bifaces and chipped stone tools. As discussed in Magne (1985), such activities are usually not performed at short-term encampments and special-purpose sites, further supporting the idea that this site was occupied for a more substantial period of time. Several utilized flakes were also identified and suggest that the toolkits of these groups were complex and were composed of both formal and expedient tools. Although the occupants of this site appear to have procured most of their raw materials from local chert outcrops, the recovery of other materials (e.g., Normanskill chert, chalcedony, possible jasper) suggests that these groups were also acquiring materials from other parts of the Northeast and may have been participating in more extensive interaction networks.

The artifacts that were recovered from the buried B-horizon include one pitted stone, one broken biface, 22 primary/secondary flakes, 28 tertiary flakes, 38 bifacial thinning flakes, four pressure flakes, four utilized flakes, and 72 broken flakes and pieces of shatter. No projectile points or other diagnostic tools were recovered from this stratigraphic layer. The artifacts recovered from this stratigraphic level resemble those found in the buried Ap-horizon both in terms of their diverse array of flake categories, their predominant manufacture from Onondaga chert, and their overwhelming concentration along the southern boundary of the site. Due to the absence of diagnostic artifacts from this soil horizon, statements regarding the temporal relationship between the Ap- and B-horizon deposits cannot be made at this time. In the future, additional work is needed to determine whether the artifacts recovered in the buried B-horizon represent a second prehistoric component at the site or whether these artifacts represent a continuation of the Early Woodland component that was identified in the Ap-horizon.

The prehistoric deposits at the Vroman I Site can also be discussed within the context of the settlement of the Schoharie Valley. According to Versaggi (1987, 1994), the prehistoric settlement pattern of the Schoharie Valley probably resembled that of the adjacent Susquehanna Valley and may have involved the use of both lowland summer camps and smaller upland winter camps and year-long resource procurement stations. Despite the limited amount of work that has been completed in this region, comparisons between the Vroman I Site and other adjacent sites suggest that this model may be applicable to the Schoharie Valley. When compared with sites located within 3.2 miles (2 kilometers) of the current project area, several Transitional/Early Woodland base camps and residential sites have been reported along the main branch of the Schoharie and Fox Creeks (Rieth 1998; Ritchie and Funk 1973; Schafer 1995). Many of these sites are comparable to the Vroman I Site in terms of the large number of artifacts that have been produced, the large size of the site, and the potential identification of small activity areas at the site. East of the Vroman I Site are the Helderberg Mountains, and according to Jones et. al. (1992), small resource procurement stations were identified in this upland area during a reconnaissance survey for the Tennessee gas pipeline. Since many of these sites are located within a day's walking distance of the Schoharie Creek watershed, it is not

unreasonable to believe that the occupants of these small resource procurement stations may have been associated with the larger base camps located along the Fox and Schoharie creeks. As discussed in the Artifact Analysis section, the recovery of artifacts manufactured from Normanskill chert and chalcedony suggests that the occupants of the Vroman I Site may have regularly traveled beyond the Helderberg Mountains to western Albany County in search of high-quality lithic materials.

2. *Historic Occupation of the Vroman I Site*. Like the prehistoric flakes that have been recovered from this site, the historic artifacts that were recovered can contribute to our understanding of the site and its context within Schoharie County. Evidence of the historic occupation of the Vroman I Site is demonstrated by the recovery of 1,343 historic artifacts from the site. Four hundred and twenty-four artifacts were recovered from the first two fill layers in Units 1–5. Six hundred and fifty-six artifacts were recovered from the non fill deposits, with 647 artifacts recovered from the buried Ap-horizon and nine artifacts recovered from the buried B-horizon. An additional 263 artifacts were recovered from STPs 4–9.4 and A–H. The historic-period occupation of the Vroman I Site appears to be contained within the buried Ap-horizon of the site, and debris associated with the occupation of the site is largely concentrated within the east yard of MDS 1. Smaller quantities of household debris were also recovered from the northern lawn of MDS 1.

The historic deposits at the Vroman I Site relate to the nineteenth-century occupation of the property by the Peter Snyder, Jacob Fisher, Jacob Dietz, and Henry Cary families. Throughout the nineteenth century, state and federal census records indicate that the property was probably occupied as a small rural farmstead. The artifacts that were recovered from the site suggest that the occupants of this site were part of a growing middle class and sought to reflect this middle-class standing through the use of matched table and teawares, the use of expensive porcelain dishes, and through the hosting of important community dinners and afternoon teas. Evidence of this middle-class standing is also reflected in the consumption of expensive food items (e.g., non-local clams and oysters, purchasing of individual meat cuts), the use of coal to heat MDS 1, and the purchasing of non-locally manufactured items.

Despite plowing, the historic deposits at the Vroman I Site appear to retain much of their original spatial patterning. As previously discussed in the Site Structure section, the eastern and northern yards produced different types of artifacts, which suggests that the early/mid-nineteenth-century occupants of the Vroman I Site disposed of refuse in areas that were closer to MDS 1. The mid-/late nineteenth-century occupants of the property appear to have conformed to changing ideas about sanitation and use of the surrounding landscape by disposing of garbage in areas that were located away from MDS 1.

Due to the relative absence of professionally excavated nineteenth-century farmsteads in the Town of Schoharie, it is currently difficult to interpret the site within a larger regional context. However, comparative data from nearby Schoharie Creek II (Rieth 1998) suggest that the construction of the Schoharie Valley Railroad through the region may have played a prominent role in the solidification of the middle class in the Town of Schoharie. Establishment of this transportation system through the Town of Schoharie not only allowed local farm products to be shipped to markets in Albany and Binghamton but probably also allowed local farms to produce goods in larger quantities. As a result, these activities probably provided local farmers with surplus cash that could be used to purchase expensive household goods and food items, which were reflective of their changing socio-economic standing in the community. Access to larger markets in eastern New York probably also provided the occupants of these sites with a larger selection of material goods with which to furnish their houses.

Site Significance

Integrity

According to Townsend et. al. (1993), a site possesses archaeological integrity if the deposits that are associated with the site are relatively intact and complete. Evidence of the integrity of the site is often demonstrated through one or more of the following characteristics: (1) the artifacts at a site contain spatial patterning of surface artifacts or features that represent differential uses or activities, (2) the artifacts are characterized by spatial patterning of subsurface artifacts or features, or (3) the site lacks serious disturbance to the property's archaeological deposits.

The site examination produced artifacts in both the buried Ap- and B-horizons. These deposits are presently buried underneath two distinct fill layers, both of which have helped to "seal" these cultural deposits and protect the site against modern land use activities (especially those related to present landscaping and land use activities, etc.). Although mixed by cultivation machinery, the artifacts that were recovered from the buried Ap- horizon appear to be in the vicinity of their original deposition as opposed to having been redeposited through earth-moving activities. In general, the artifacts that were recovered from the buried Ap-horizon appear to retain much of their original spatial patterning with the largest concentration of prehistoric artifacts being recovered along the southeast corner of the site. The largest

number of historic artifacts was recovered from the eastern yard of MDS 1 with smaller concentrations of artifacts also being recovered from the northern yard near MDS 3 and Structure Q (no address #). The prehistoric artifacts that were recovered from the B-horizon remain intact and have not been impacted by plowing and/or other land use activities. Like the Ap-horizon, these artifacts appear to retain much of their spatial patterning and are concentrated along the southern half of the site.

Unknown portions of the site have probably also been obliterated by the construction of the existing roadbed and the driveway leading to Structure O (no address #). As the area along the existing roadbed was extensively altered, the likelihood that intact prehistoric and historic deposits are located underneath the roadway is low. Construction of the driveway leading to Structure O (no address #) probably did not involve extensive impacts to the site, and remnants of the site may remain intact underneath the driveway.

Adequacy of Horizontal and Vertical Boundaries

The results of the site examination indicate that the Vroman I Site is adequately defined within the project limits. The portion of the site that is located within the project limits measures approximately 45 meters (144 feet) long and 12.7 meters (40.8 feet) wide. The Vroman I Site encompasses 573.7 square meters (5,875.2 square feet) or 0.05 hectares (0.13 acres) within the current project limits. The results of the site examination indicate that prehistoric and historic deposits can be found both within fill and buried Ap-/B-horizons to a depth of 95–100 centimeters (37–39 inches) below the ground surface.

Since prehistoric and historic artifacts were recovered along the western boundary of the project area, deposits associated with the Vroman I Site probably extend beyond the current project limits. The eastern boundary of the site appears to be located 2.25 meters (7.2 feet) from the edge of the existing pavement. The area within 2.25 meters (7.2 feet) of the edge of the pavement could not be tested because of road berm and fill.

Research Potential

The site examination of the Vroman I Site produced deposits associated with both the prehistoric and the historic occupation of the site. The prehistoric deposits that were identified at the site consist of at least one small Transitional/Early Woodland camp located along the north bank of Fox Creek. Presently, it is not known whether the artifacts recovered from the B-horizon are associated with this occupation or whether these artifacts represent a second, older occupation. The historic deposits that were identified at the site are believed to be associated with the occupation of the property as a small nineteenth-century farmstead. Artifacts associated with this site are believed to be associated with the c. 1817-1900 occupation of the property by the Peter Snyder, Jacob Fisher, Jacob Dietz, and Henry Cary families.

Given the limited amount of professional work that has been completed in the Schoharie Valley, the prehistoric and historic deposits at the Vroman I Site can contribute to our understanding of the prehistory and the history of both the local project area and the larger Town of Schoharie. As discussed in the prehistoric background section of this report, several prehistoric sites have been identified along the main branch of the Fox and Schoharie creeks. Only a handful of these sites have been professionally excavated, thereby limiting our understanding of the prehistoric chronology of the region. The recovery of a possible Early Woodland projectile point tip from the buried Ap-horizon has allowed general information about the temporal affiliation of the site to be determined. Presently, the temporal affiliation of the deposits encountered in the buried B-horizon remains unknown. The recovery of both fire-cracked rock and charcoal fragments from the buried Ap- and B-horizons suggest that the Vroman I Site could potentially produce intact features and/or diagnostic remains that could be used to refine the chronology of the site.

Issues related to the settlement patterns of this small camp and the larger Schoharie Valley can potentially be addressed at the Vroman I Site. As discussed in the Site Structure section of this report, prehistoric artifacts are differentially distributed across the site, with the heaviest concentration of artifacts recovered from the eastern lawn of MDS 1 in Units 1, 2, and 4. The presence of this artifact cluster may represent one or more activity areas at the site. Evaluation of these activity areas will not only help archaeologists refine their understanding of the spatial arrangement of the site but may also produce important information concerning the settlement patterns and the different types of activities that took place at the site. The potential for locating artifact-bearing features at the site is important and may reveal information relating to the seasonality and duration of occupation.

The historic deposits at the site can also be used to address research questions related to the occupation of rural farmsteads and the solidification of the middle class in Schoharie County. According to Fritts (1999:39–62), this transformation is often accompanied by changes in the social organization of the family, the spatial organization of rural households, consumption patterns, and increased participation in a regional economy. The Vroman I Site can contribute to this general research issue by studying the effects that the

rise of the middle class had on rural nineteenth-century households in the Town of Schoharie. Finally, the historic deposits identified at the Vroman I Site possess comparative research potential with other nineteenth-century sites in the Town of Schoharie (e.g., Hartgen 1989; Rieth 1998). Such comparisons will not only allow the site to be interpreted within a larger regional framework but will also allow a more accurate and detailed understanding of nineteenth-century life in this region to be created.

Assessment of Potential Adverse Effects and Recommendations

The Vroman I Site will be impacted during the realignment of the Route 443 and Route 30 intersection (Figure 11). Specific impacts will be related to the removal and realignment of the existing pavement for the crossroad leading to the pedestrian bridge as well as the removal of a small extant building and trees within the project limits.

Given the large number of artifacts that have been recovered from the site and the research potential of the site, the site is recommended as eligible for the National Register of Historic Places under Criterion D as a property "that has yielded or may be likely to yield, information important in prehistory or history" (Townsend et al. 1993:22). The eastern boundary of the site is located 2.25 meters (7.2 feet) from the edge of the existing pavement. If the deposits located beyond 2.25 meters (7.2 feet) of the edge of the roadway can be fenced off and avoided, then no additional work is recommended. However, if the area of impact will extend more than 2.25 meters (7.2 feet) from the edge of the pavement, then the site should be mitigated through data recovery. A data recovery plan will be submitted to the New York State Department of Transportation if mitigation is required.

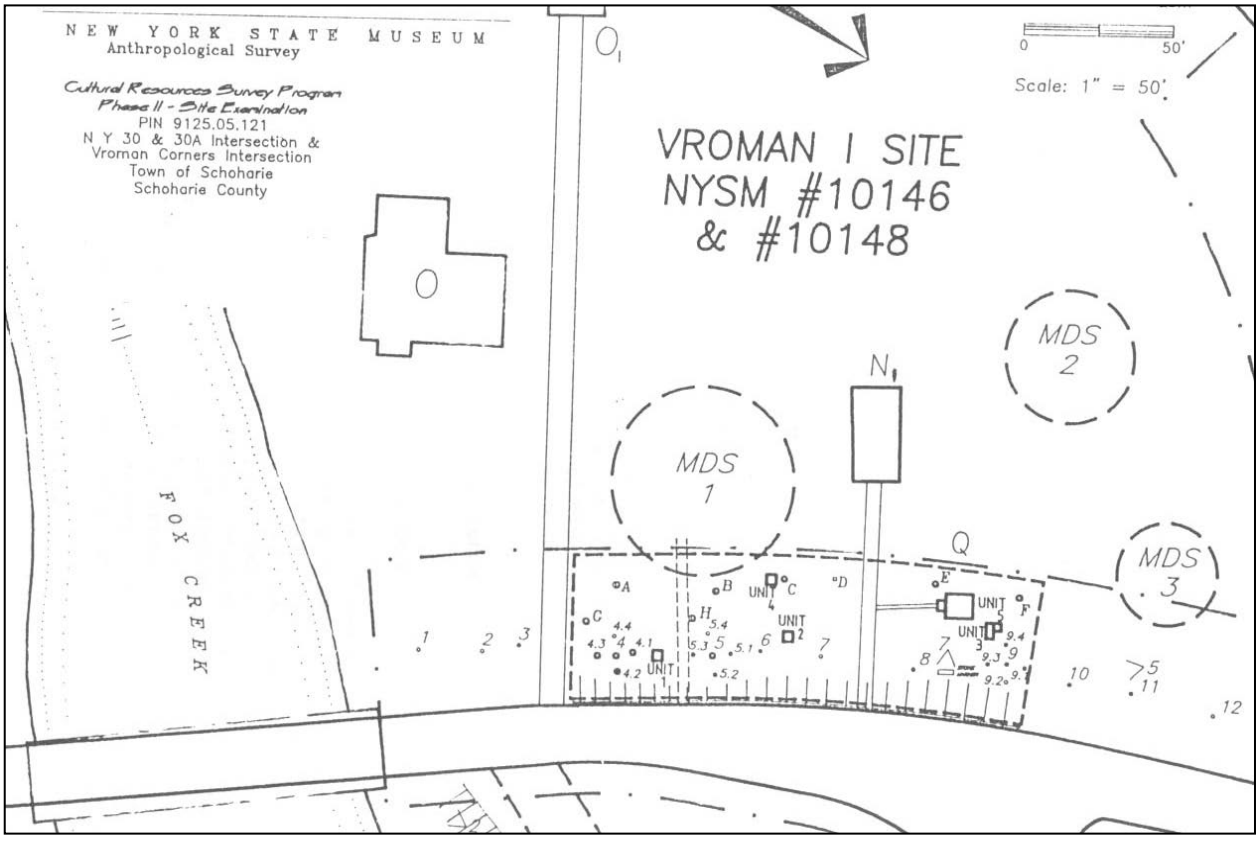


Figure 11. Map Showing the Area of Impact for the Vroman I Site (NYSM # 10146 and 10148).

Results of the Site Examination of the Vroman II Site (NYSM # 10147)

The Vroman II Site consists of a small low-density scatter of prehistoric artifacts located along the secondary floodplain of Schoharie Creek. The results of the site examination failed to produce any diagnostic artifacts and/or features, which would allow information about the temporal affiliation of the site to be determined. Despite excavation of the test units into a buried C-horizon, the site does not appear to be stratified and is unlikely to produce any additional prehistoric components. Given the limited number of artifacts that were recovered from the site, the site is considered to have limited research potential and is not recommended as eligible for the National Register of Historic Places.

Site Location and Boundaries

The Vroman II Site was initially identified during the 1995 reconnaissance survey of the PIN 9125.05.121 project area. The site is situated in a small cultivated field located along the western shoulder of Route 30 (Figure 12; Photographs 11–13). The site is bordered on the east by the shoulder/berm from the Route 30 roadway and on the west by the secondary floodplain of the Schoharie Creek. Approximately 152 meters (500 feet) south of the site is the main channel of Fox Creek.

Like the Vroman I Site, the actual size of the site is difficult to determine given the narrow project limits. The results of the site examination indicate that the site measures approximately 91 meters (300 feet) long and 12.5 meters (37.5 feet) wide within the current project limits. Within the project limits, the site encompasses 1,137.5 square meters (11,250 square feet) or 0.1 hectares (0.25 acres). The site examination indicates that cultural deposits can be found to a depth of approximately 50 centimeters (20 inches) below the ground surface.

Cultural remains were found along the western boundary of the site, suggesting that a portion of the site extends beyond the current project limits. The eastern boundary of the site is located approximately 3.8 meters (12.5 feet) from the edge of the pavement of Route 30. The area between 0 and 3.8 meters (0 and 12.5 feet) from the edge of the pavement consists of road berm and fill and could not be tested (see Photograph 11). Given the extensive impacts that were imposed upon the project area during the construction of the existing Route 30 roadway, it seems unlikely that intact deposits remain underneath the existing Route 30 roadway.

As a result of the reconnaissance survey and the site examination of the Vroman II Site, 20.45 square meters or 1.8% of the area of the site has already been excavated.

Stratigraphy and Chronology

The stratigraphy of the Vroman II Site resembles that predicted for the Barbour and Tioga loam series (USDA 1969). As illustrated in Table 12 and discussed further below, the stratigraphy of the site is relatively simple, with each of the units producing both plowzone and non-plowzone deposits. The soil profiles of Units 6, 7, 8, and 9 are relatively similar, with the first 28–29 centimeters (11 inches) consisting of a shallow plowzone with a dark gray brown (10 YR 3/2) silt loam soil that extends to an approximate depth of 25 centimeters (10 inches) below the ground surface. This soil horizon contained both prehistoric and historic artifacts, including pieces of undecorated ironstone (1813–1885), unidentified iron and steel fragments, unidentified bone fragments, a wrought iron nail (pre-1820), pieces of mortar, cinder and coal, and green window glass fragments. A variety of prehistoric chipped stone artifacts, including a core fragment, bifacial thinning flakes, and pieces of lithic shatter, were also recovered. In addition to these artifacts, modern artifacts were also recovered from several of the units, including brown bottle glass fragments, clear bottle glass fragments, clear flat (automobile) window glass, and pieces of plastic.

Units 7, 8, and 9 produced an A-horizon underneath the Ap-horizon (Figures 13–16; see Table 12). This soil horizon consisted of a dark brown (10 YR 3/3) silt sand soil that was found at a variable depth of 20–42 centimeters (8–17 inches) below the ground surface. Like the layer above it, prehistoric, historic, and modern artifacts were recovered. Included among these artifacts were primary/secondary, bifacial thinning, and broken flakes, pieces of lithic shatter, modern brown and clear bottle glass, unmodified field chert, wire nails (1875+), unidentified iron/steel fragments, part of an undecorated kaolin pipe bowl fragment, combed yellow lead-glazed buff earthenware fragments (1670–1795), and clear flat (automobile) window glass fragments.

All of these test units were excavated into the subsoil. As seen in Figures 14–16, the B-horizon contained a dark yellow brown (10 YR 5/6) silt sand that was generally encountered at a variable depth of

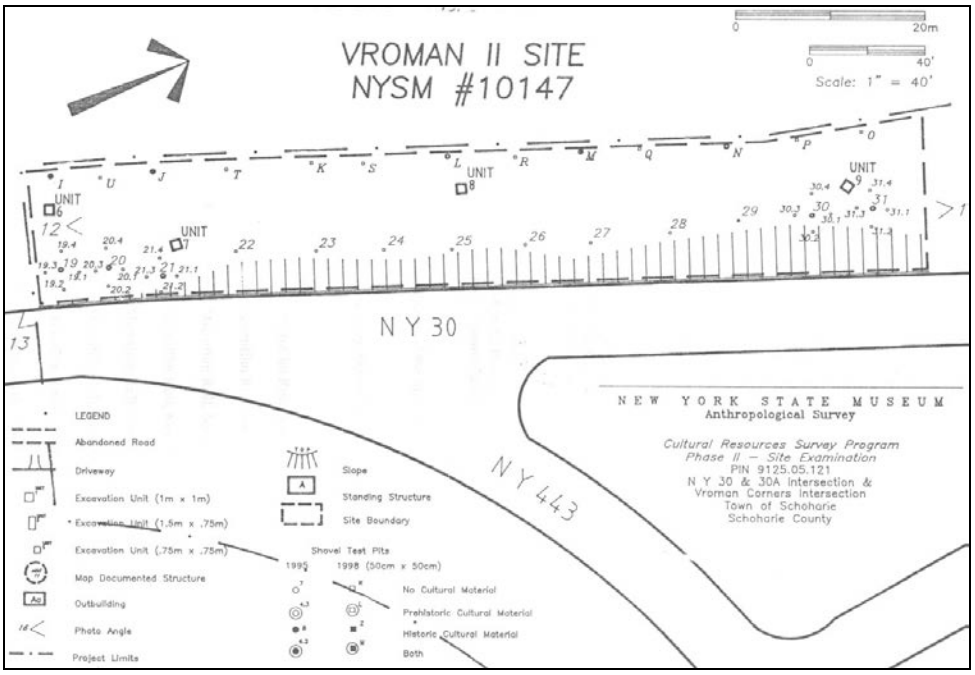


Figure 12. Map of the Vroman II Site (NYSM # 10147).

Photograph 11. Looking South Across the Vroman II Site (NYSM # 10147). The main bed of Fox Creek is located along the tree line shown in the upper right hand corner of the photograph. The eastern portion of the site probably lies underneath the road berm shown along the left side of the photograph.

Photograph 12. Looking North Across the Vroman II Site (NYSM # 10147)
from the Southern Site Boundary.

Photograph 13. Looking Northwest Along the Secondary Floodplain of the Schoharie Creek. Deposits associated with the Vroman II Site are located in the foreground of the photograph. The main channel of the Schoharie Creek is located along the trees shown in the background of the photograph. Terrace Mountain is shown in the background of the photograph.

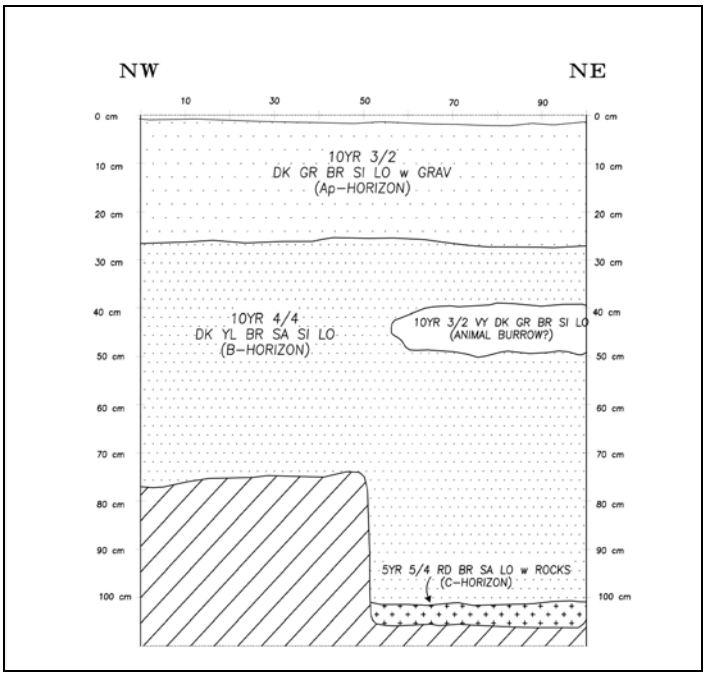


Figure 13. South Wall Profile of Unit 6.

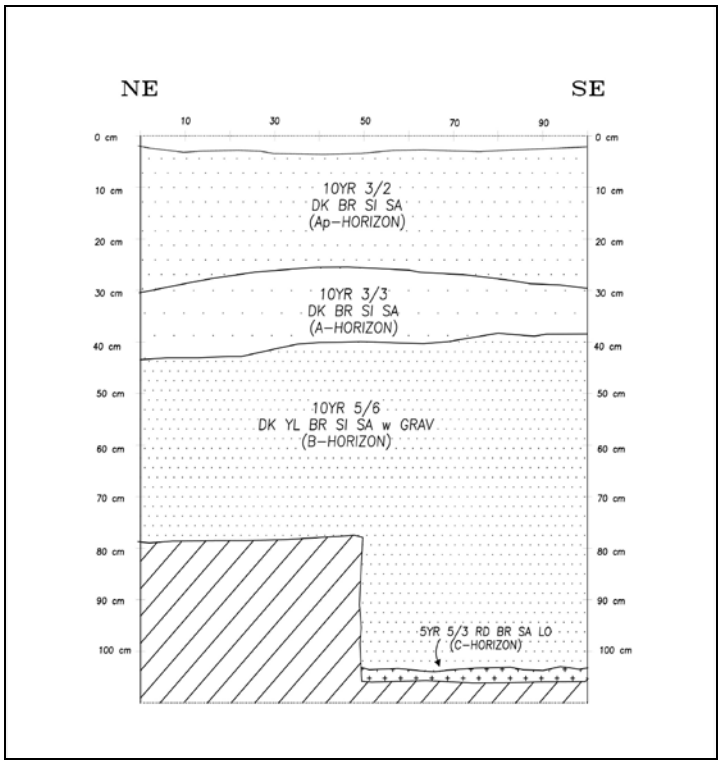


Figure 14. West Wall Profile of Unit 7.

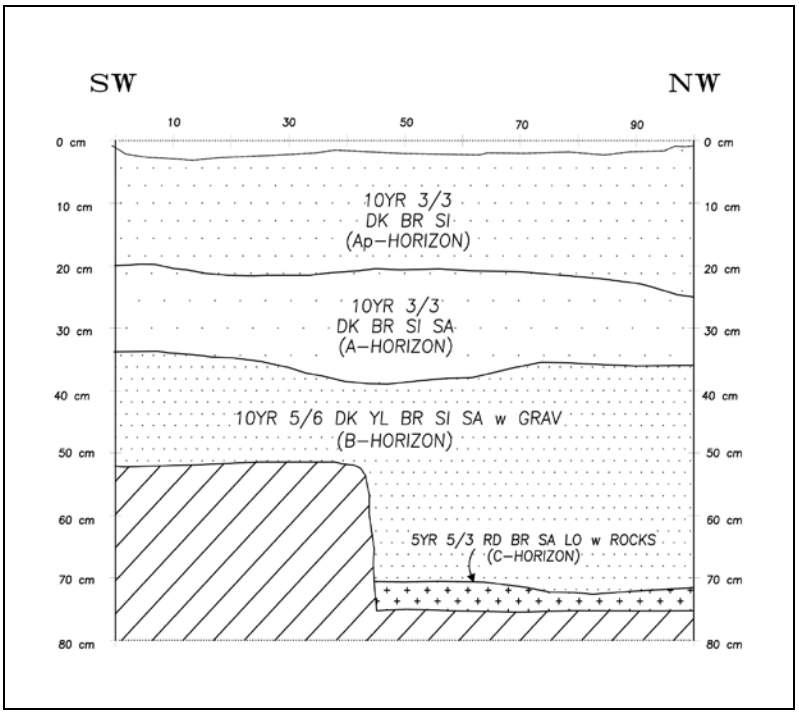


Figure 15. West Wall Profile of Unit 8.

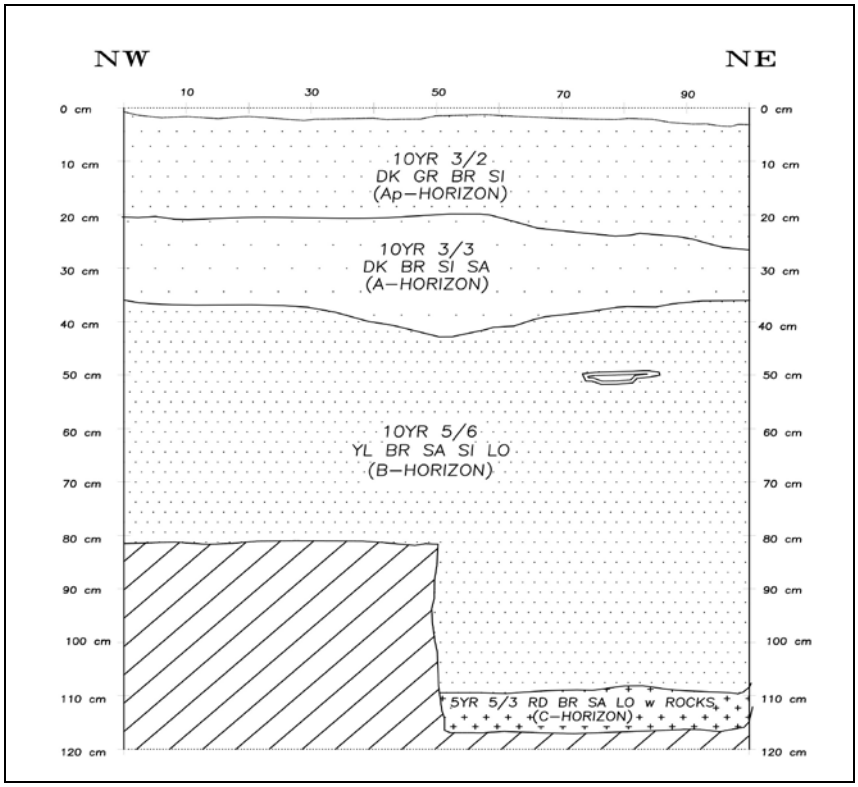


Figure 16. South Wall Profile of Unit 9.

Table 12. Summary of Stratigraphic Layers and Vertical Distribution of Artifacts at the Vroman II Site.

Unit/Level	Depth	Soil Description	Soil Horizon	No. Prehistoric Artifacts	No. Historic Artifacts	No. Unidentified Artifacts	No. Modern Artifacts	Total
Unit 6/ Level 1	0–10 cm (0–4 in)	Dark Gray Brown Silt	Ap-horizon	16	1	3	8	28
Unit 6/ Level 2	10–20/21 cm (4–8 in)	Dark Gray Brown Silt	Ap-horizon	8	5	1	9	23
Unit 6/ Level 3	20/21–25/28 cm (8–11 in)	Dark Gray Brown Silt	Ap-horizon	4	--	--	1	5
Unit 6/ Level 4	25/28–37/38 cm (11–15 in)	Dark Yellow Brown Silt Sand	B-horizon	2	--	--	--	2
Unit 6/ Level 5	37/38–50 cm (15–20 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 6/ Level 6	50–62 cm (20–24 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 6/ Level 7	62–72 cm (24–28 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 6/ Level 8	72–82 cm (28–32 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 6/STP	82–97/98 cm (32–38/39 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 6/STP	97/98–108 cm (38/39–43 in)	Dark Yellow Gray Sand	C-horizon	--	--	--	--	--
Unit 7/ Level 1	0–11/13 cm (0–4/5 in)	Dark Brown Silt Sand	Ap-horizon	5	--	6	4	15
Unit 7/ Level 2	11/13–20 cm (4/5–8 in)	Dark Brown Silt Sand	Ap-horizon	4	--	3	1	8
Unit 7/ Level 3	2–25/30 cm (8/10–10/12 in)	Dark Brown Silt Sand	Ap-horizon	--	--	--	--	--
Unit 7/ Level 4	25/30–40 cm (10/12–16 in)	Dark Brown Silt Sand	A-horizon	--	--	--	--	--
Unit 7/ Level 5	40–50/51 cm (16–20 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 7/ Level 6	50/51–60/61 cm (20–24 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 7/ Level 7	60/61–70/72 cm (24–28 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--

Table 12. Summary of Stratigraphic Layers and Vertical Distribution of Artifacts at the Vroman II Site (continued).

Unit/Level	Depth	Soil Description	Soil Horizon	No. Prehistoric Artifacts	No. Historic Artifacts	No. Unidentified Artifacts	No. Modern Artifacts	Total
Unit 7/ Level 8	70/72–77/79 cm (28–32 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	--	--	--
Unit 7/STP	77/79–102/105 cm (32–40/41 in)	Dark Yellow Brown Silt Sand w/ Gravel	B-horizon	--	--	--	--	--
Unit 7/STP	102/105–115 cm (40/41–45 in)	Dark Yellow Gray Sand w/ Cobbles and Gravel	C-horizon	--	--	--	--	--
Unit 8/ Level 1	0–10 cm (0–4 in)	Dark Brown Silt	Ap-horizon	16	--	4	--	20
Unit 8/ Level 2	10–19/24 cm (4–9 in)	Dark Brown Silt	Ap-horizon	21	9	10	--	40
Unit 8/ Level 3	19/24–29/34 cm (9–11/13 in)	Dark Brown Silt Sand	A-horizon	19	19	4	--	42
Unit 8/ Level 4	29/34–33/38 cm (11/13–13/15 in)	Dark Brown Silt Sand	A-horizon	--	--	1	--	1
Unit 8/ Level 5	33/38–43/45 cm (13/15–17/18 in)	Dark Yellow Brown Silt Sand w/ Gravel	B-horizon	2	--	--	--	2
Unit 8/ Level 6	43/45–53/55 cm (17/18–21/22 in)	Dark Yellow Brown Silt Sand w/ Gravel	B-horizon	--	--	1	--	1
Unit 8/STP	53/55–69/70 cm (21/22–27/28 in)	Dark Yellow Brown Silt Sand	B-horizon	--	--	1	--	1
Unit 8/STP	69/70 cm (27/28 in)	Red Brown Sand	C-horizon	--	--	--	--	--
Unit 9/ Level 1	0–10 cm (0–4 in)	Dark Gray Brown Silt	Ap-horizon	1	1	--	--	2
Unit 9/ Level 2	10–20/25 cm (4–8/10 in)	Dark Gray Brown Silt	Ap-horizon	4	--	--	--	4
Unit 9/ Level 3	20/25–31/32 cm (10–12/13 in)	Dark Brown Silt Sand	A-horizon	8	1	--	--	9
Unit 9/ Level 4	31/32–36/42 cm (12/13–14/16 in)	Dark Brown Silt Sand	A-horizon	--	--	--	--	--
Unit 9/ Level 5	36/42–46/52 cm (14/16–18/20 in)	Yellow Brown Sandy Silt Loam	B-horizon	--	--	--	-	--

Table 12. Summary of Stratigraphic Layers and Vertical Distribution of Artifacts at the Vroman II Site (continued).

Unit/Level	Depth	Soil Description	Soil Horizon	No. Prehistoric Artifacts	No. Historic Artifacts	No. Unidentified Artifacts	No. Modern Artifacts	Total
Unit 9/ Level 6	46/52–57 cm (18/20–22 in)	Yellow Brown Sandy Silt Loam	B-horizon	--	--	--	--	--
Unit 9/ Level 7	57–67/68 cm (22–26/27 in)	Yellow Brown Sandy Silt Loam	B-horizon	--	--	--	--	--
Unit 9/ Level 8	67/68–80 cm (26/27–31 in)	Yellow Brown Sandy Silt Loam	B-horizon	--	--	--	--	--
Unit 9/STP	80–112 cm (31–44 in)	Yellow Brown Sandy Silt Loam	B-horizon	--	--	--	--	-
Unit 9/STP	112–122 cm (44–48 in)	Yellow Brown Sandy Silt Loam	C-horizon	--	--	--	--	--
STPS I-U	--	--	--	16	5	3	2	26
Surface Collection	--	--	--	--	1	--	--	1
STPs 19-31	--	--	--	14	6	2	1	23
Total	--	--	--	141	47	38	26	252

36–43 centimeters (14–17 inches) below the ground surface. In Units 6, 7, and 9, this soil horizon was excavated to a final depth of 105–112 centimeters (41–44 inches) below the ground surface. In Unit 8, the subsoil was quite shallow and was excavated to the base of the horizon at an approximate depth of 70 centimeters (28 inches) below the ground surface. Although the B-horizon was artifact-bearing, the majority of the artifacts recovered from this soil horizon were recovered from the first 20 centimeters (8 inches) of the horizon. This soil horizon produced a low density of prehistoric artifacts, including primary/secondary flakes, broken flakes, and a few flecks of wood charcoal. Due to the lack of temporally diagnostic artifacts from the subsoil, the cultural deposits that were identified within the B-horizon could not be assigned to a particular time period or cultural tradition.

A C-horizon was encountered at an average depth of 105–112 centimeters (41–44 inches) below the ground surface. Like the Vroman I Site, this stratigraphic layer contained a red brown (5 YR 5/3 and 5 YR 5/4) sandy soil with large cobbles and smaller fragments of gravel. This sterile soil horizon was excavated to a maximum depth of 122 centimeters (48 inches) below the ground surface.

Features

No features were identified within the project limits of the Vroman II Site.

Artifacts

Two hundred and fifty-two artifacts have been recovered from the Vroman II Site (Table 13). Twenty-three artifacts (or 9.1% of the total artifact assemblage) were recovered during the reconnaissance survey and the remaining 229 artifacts (or 90.8% of the entire artifact assemblage) were recovered during the site examination (Table 13). Of the total artifact assemblage, 141 (or 55.9%) artifacts were prehistoric, 47 (or 18.6%) were historic, 38 (or 14.6%) were unidentified, and 26 (or 10.7%) were modern.

Table 13. Summary of Horizontal/Vertical Provenience of Artifacts from the Vroman II Site (NYSM # 10147).[2]

Unit/STP #	Soil Horizon	No. of Prehistoric Artifacts (%)	No. of Historic Artifacts (%)	No. of Unidentified Artifacts (%)	No. of Modern Artifacts (%)	Total
Unit 6-9	Ap-horizon	79 (31.3)	16 (6.3)	26 (10.3)	24 (9.5)	145 (57.7)
	A-horizon	27 (10.7)	20 (8)	4 (1.5)	--	51 (20.2)
	B-horizon	4 (1.6)	--	2 (0.8)	--	6 (2.3)
	Total	110 (43.7)	36 (14.3)	32 (12.7)	24 (9.5)	202 (80)
STPs I-U	Ap-horizon	16 (6.3)	4 (1.6)	3 (1.2)	2 (0.8)	25 (9.9)
	B-horizon	--	1 (0.3)	--	--	1 (0.3)
	Total	16 (6.3)	5 (1.9)	3 (1.2)	2 (0.8)	26 (10.3)
STPS 19-31[1]	Ap-horizon	14 (5.5)	6 (2.3)	2 (0.8)	1 (0.3)	23 (9.1)
	B-horizon	--	--	--	--	--
	Total	14 (5.5)	6 (2.3)	2 (0.8)	1 (0.3)	23 (9.1)
Surface	--	1 (0.3)	--	--	--	1 (0.3)
Total	--	141 (55.9)	47 (18.6)	38 (14.6)	26 (10.7)	252 (100)

1-Artifacts recovered during the 1995 reconnaissance survey (see Schafer 1995).
2-Percentage equals the total number of artifacts recovered from the site (n=252).

1. *Prehistoric Artifacts*. The majority of the artifacts that were recovered from the Vroman II Site were identified as prehistoric. The prehistoric assemblage from the site consists of two pitted stones, a chert core, and a low-density scatter of prehistoric flakes. Presently, no diagnostic and/or curated tools have been recovered from the site.

Two pitted stones were recovered from the Vroman II Site. Both of these artifacts were recovered from the western portion of the project area in the plowzone of Unit 6. Both of these tools are manufactured from small sandstone river cobbles and contain a single "pit" on the exterior surface. These two artifacts do not contain an extensive amount of battering and were probably collected near the site and were discarded after use.

The largest number of prehistoric artifacts that were recovered from the site consisted of small chert flakes.

In total, 139 chert flakes were recovered from the Vroman II Site (Table 14). Seventy-six percent of these artifacts consisted of small broken flakes and pieces of lithic shatter, 8.6% consisted of primary/secondary flakes, 8.6% were tertiary flakes, 5.8% were bifacial thinning flakes, and 0.7% were pressure flakes. The majority of these flakes (81.6%) were small and measured less than 2 centimeters (0.8 inches) in diameter. The majority of these artifacts were manufactured from medium gray Onondaga chert that may have been procured from one or more local quarries.

Analysis of the flakes from the Vroman II Site indicates that three (1.2%) of the flakes were heat-treated, as evidenced by the presence of potlids and a reddening of the artifact surface. Heat treatment often occurred as a means for improving knapping as well as increasing the potential for producing more acute (or sharper) edge angles on retouched tools. Evidence that nodules of chert were being heat-treated is supported by the presence of a small concentration of fire-cracked rock at the site. Due to the small sample size, there did not appear to be any differences in the types of flakes that were being heat-treated. One tertiary (33.3%), 1 (33.3%) piece of shatter, and 1(33.3%) broken flake showed signs of heat treatment.

Noticeably absent from the assemblage are utilized flakes. Despite the recovery of nine utilized flakes from the Vroman I Site, the occupants of the Vroman II Site do not appear to have possessed toolkits that were composed of these types of expedient tools. Instead, the occupants of this site probably relied on more formal tools, which were probably curated as these groups moved between sites.

2. Historic Artifacts. Forty-seven historic artifacts were recovered from the Vroman II Site. The majority of these artifacts consisted of small architectural (e.g., pieces of mortar, machine-cut and wrought iron nails, aqua window glass, unidentified iron/steel fragments, etc.) and domestic (e.g., decorated and undecorated ceramics, pieces of cinder, coal, and slag, kaolin pipe bowl and stem fragments, etc.) remains. Like the prehistoric artifacts, the majority of these remains were

Table 14. Summary of Flake Classes that Were Recovered from the Vroman II Site (NYSM # 10147).[1]

Unit/Level	Primary/ Secondary (%)	Tertiary (%)	Bifacial Thinning (%)	Pressure (%)	Broken Flakes and Shatter	Total
Unit 6/Level 1	--	1 (0.7)	2 (1.4)	1 (0.7)	10 (7.2)	14 (10)
Unit 6/Level 2	--	2 (1.4)	--	--	6 (4.3)	8 (5.6)
Unit 6/Level 3	1 (0.7)	--	1 (0.7)	--	2 (1.4)	4 (2.9)
Unit 6/Level 4	1 (0.7)	--	--	--	1 (0.7)	2 (1.4)
Total	1 (0.7)	3 (2.2)	3 (2.2)	1 (0.7)	19 (13.7)	28 (20)
Unit 7/Level 1	1 (0.7)	--	--	--	4 (2.9)	5 (3.6)
Unit 7/Level 2	--	--	--	--	4 (2.9)	4 (2.9)
Total	1 (0.7)	--	--	--	8 (5.8)	9 (6.5)
Unit 8/Level 1	--	2 (1.4)	--	--	13 (9.4)	15 (11)
Unit 8/Level 2	3 (2.2)	--	1 (0.7)	--	16 (11.5)	20 (14)
Unit 8/Level 3	1 (0.7)	--	1 (0.7)	--	16 (11.5)	18 (13)
Unit 8/Level 4	--	--	--	--	--	--
Unit 8/Level 5	--	--	--	--	2 (1.4)	2 (1.4)
Total	4 (2.9)	2 (1.4)	2 (1.4)	--	47 (33.8)	55 (39)
Unit 9/Level 1	1 (0.7)	--	--	--	--	1 (0.7)
Unit 9/Level 2	--	1 (0.7)	1 (0.7)	--	5 (3.6)	7 (5)
Unit 9/Level 3	1 (0.7)	1 (0.7)	--	--	5 (3.6)	7 (5)
Total	2 (1.4)	2 (1.4)	1 (0.7)	--	10 (7.2)	15 (11)
STP I-U/Level 1	2 (1.4)	2 (1.4)	2 (1.4)	--	10 (7.2)	16 (11)
STP 19-31/Level 1	1 (0.7)	2 (1.4)	--	--	12 (8.6)	15 (11)
Surface	--	1 (0.7)	--	--	--	1 (0.7)
Total	3 (2.2)	5 (3.6)	2 (1.4)	--	22 (15.8)	32 (23)
Total	12 (8.60	12 (8.6)	8 (5.8)	1 (0.7)	106 (76.3)	139 (100)

1-Percentage equals percentage of the total number of flakes from the site (n=139).

recovered from the plowzone deposits at the site. Spatially, the largest concentration of historic artifacts was recovered from the central portion of the site in Unit 8.

Given the absence of an extant structure or a map-documented structure within the project limits, these artifacts have been interpreted as a small field scatter and contribute little or no information about the historic occupation of the Vroman II Site.

3. *Unidentified and Modern Artifacts*. Twenty-six modern and 38 unidentified artifacts were recovered from the Vroman II Site. The modern artifacts consist largely of brown and clear bottle glass fragments, pieces of plastic, and automobile window glass. The unidentified artifacts consist of pieces of field chert, bone, and shell fragments, each of which could not be assigned to a prehistoric or historic artifact category. The majority of these artifacts were recovered from the Ap-horizon and were recovered from the same stratigraphic provenience as the chert flakes and the historic architectural and domestic remains. In general, these unidentified and modern artifacts have limited research potential and do not enhance our understanding of the Vroman II Site.

Site Structure

The 1998 site examination of the Vroman II Site produced prehistoric artifacts in each of the four test units and in four of the STPs. As summarized in Table 15, Units 6–9 each contained prehistoric artifacts within the Ap- and A-horizons. Although Units 6 and 8 and STP M each produced artifacts in the B-horizon, only Units 6 and 8 contained prehistoric artifacts in the B-horizon. STP M contained only historic artifacts in the B-horizon.

The site examination of the Vroman II Site produced a low density of artifacts. As seen in Table 15, the average number of artifacts recovered from the plowzone deposits in Units 6–9 was 36.3. While this number may seem to be high, this number is somewhat inflated because of the large number of historic and modern artifacts that were recovered from the plowzone. When only the prehistoric artifacts are considered, the number of artifacts per unit drops to 19.8. Less than 13 artifacts were recovered from the A-horizon, and 1.5 artifacts were recovered from the B-horizon. The seven STPs reflect this same general pattern, with the largest number of artifacts (1.9 artifacts per STP) recovered from the plowzone and 0.07 artifacts recovered from the subsoil.

The largest number of flakes was recovered from the southern and northern portion of the site in Units 7 and 9. The recovery of larger numbers of artifacts in these areas is consistent with similar evidence recovered during the reconnaissance survey. As discussed in Schafer (1995), the largest number of artifacts was recovered along the northern and southern boundaries of the site in STPs 19, 19.4, 20, 21, 30, and 31. The presence of larger numbers of artifacts in these

two areas suggests that two low-density activity areas may be present at the site. Evidence of this is also supported by the recovery of the two pitted stones along the southern site boundary in Unit 7 and core fragments along the northern boundary of the site in Unit 9.

The distribution of historic artifacts across the Vroman II Site indicates a general field scatter of nineteenth- and twentieth-century refuse. These artifacts do not appear to be associated with the historic occupation of the site and do not contribute to our understanding of the site.

Table 15. Number of Artifacts Recovered per Units and STPs at the Vroman II Site (NYSM # 10147).

Unit/STP#	Soil Horizon	No. of Artifacts	No. of STP/Units	Artifacts per STP/Unit	Artifact Categories			
					Prehistoric	Historic	Other[2]	Total
Unit 6–9	Ap-horizon	145	4	36.3	79	16	50	145
	A-horizon	51	4	12.8	27	20	4	51
	B-horizon	6	4	1.5	4	--	2	6
STPs I–U	Ap-horizon	25	13	1.9	16	4	5	25
	B-horizon	1	13	0.07	--	1	--	--
STPs 19–31[1]	Ap-horizon	23	33	0.7	14	6	3	23
	B-horizon	--	33	--	--	--	--	--

1-Excavated during the 1995 reconnaissance survey (see Schafer 1995), 2-Includes both modern and unidentified artifacts.

Site Interpretation

Site Age

The age of the site can not currently be determined because no temporally diagnostic artifacts were recovered from the test units.

Site Function and Relationship to Local and Regional Context

The local and regional use of the Vroman II Site can be understood within the context of Versaggi's (1987) highland-lowland settlement model. This model, which is based on Binford's (1980) optimal foraging model, suggests that the prehistoric occupants of New York were organized into smaller mobile groups whose survival centered on the maintenance of small centrally located base camps. Surrounding the base camp was a foraging radius that was equivalent to the distance that could be traversed within a day. Activities associated with the maintenance of the base camp (e.g., hunting, gathering of roots and tuber, fishing, etc.) were generally completed within this foraging radius. Those tasks that required more extensive travel from the site generally resulted in the creation of "multi-night encampments" located several miles from the base camp (Versaggi 1987). While larger base camps have traditionally been located in lowland areas, smaller foraging sites and temporary activity areas have been documented both in upland and lowland areas (Jones et al. 1992).

The results of the site examination indicate that the Vroman II Site probably represents one of these temporary activity areas. Although it should be noted that the entire site was not excavated, the short-term occupation of the site is reinforced by the limited number of artifact classes that were recovered, the predominance of late-stage biface reduction debris (e.g., tertiary and bifacial thinning flakes), and the apparent absence of features (especially small hearths) at the site (Magne 1985). Although prehistoric flakes were recovered from each of the four test units, the recovery of high quantities of artifacts from Units 7 and 9 suggest that the site may contain two different activity loci. The limited number of artifact classes that were recovered from these two areas suggests that the site was not used for a variety of functions but was probably used for a specific purpose. Given the relationship of the site to the adjacent Fox Creek and the Schoharie Creek, it is not unreasonable to believe that this site may be associated with procurement of aquatic resources from these two bodies of water. The absence of temporally diagnostic artifacts from these two areas makes it difficult to determine whether they are contemporaneous or whether they were occupied at different times.

Significance

Integrity

According to Townsend et al. (1993:14), a site that possesses integrity is not only relatively intact and complete, but also contains elements that are consistent with a particular time period and/or cultural tradition. The results of the site examination indicate that the Vroman II Site consists of both plowzone and non-plowzone deposits. Although mixed by cultivation machinery, the artifacts that were recovered from the

Ap-horizon appear to be in the vicinity of their original deposition as opposed to having been redeposited through earth-moving activities.

Unknown portions of the site have probably also been obliterated by the construction of the existing roadbed. Since the *NYSDOT Road Construction Maps* (NYSDOT 1914 and 1954) indicate that the area along the existing roadbed was graded, the likelihood that intact prehistoric deposits exist underneath the Route 30 roadway is low.

Adequacy of Horizontal and Vertical Boundaries

The results of the site examination indicate that the Vroman II Site is adequately defined within the project limits. The portion of the Vroman II Site that is located within the project limits encompasses 1,042 square meters (11,250 square feet) or 0.1 hectares (0.25 acres). Within the current project limits, the site measures 91.4 meters (300 feet) long and 12.4 meters (37.5 feet) wide. Cultural deposits associated with the occupation of this site were identified 3.8 meters (12.5 feet) from the edge of the pavement of Route 30. The area within 3.8 meters (12.5 feet) was not tested since it consisted of several feet of berm for the existing roadway. The vertical boundaries of the site appear to be contained within the Ap-, A- and upper portion of the B-horizon at an approximate depth of 0–50 centimeters (0–20 inches) below the ground surface.

As previously discussed in the Site Location and Boundaries section, artifacts were recovered along the western boundary of the project area in STPs I, J, L, and N. The recovery of artifacts in these shovel test pits suggests that additional deposits associated with the site may be located beyond the current project limits.

Research Potential

Although the Vroman II Site possesses some of its original integrity, the lack of diagnostic artifacts, intact features, and artifacts associated with the use of the site for a specific activity suggest that the Vroman II Site has limited research potential. Due to the limited research potential of the site, the Vroman II Site is not recommended as eligible for the National Register of Historic Places.

Assessment of Impacts and Recommendations

The portion of the Vroman II Site that is located within the current project limits will be impacted as a result of the realignment of the Route 443 and Route 30 intersection (Figure 17). Given the limited number of artifacts, the absence of features, and the absence of diagnostic artifacts from the site, the site is not recommended to be eligible for the National Register of Historic Places. No additional work is recommended at this time. However, in the event that the project limits are revised to include deposits located in the surrounding areas, additional work is recommended to determine if these deposits are eligible for the National Register of Historic Places.

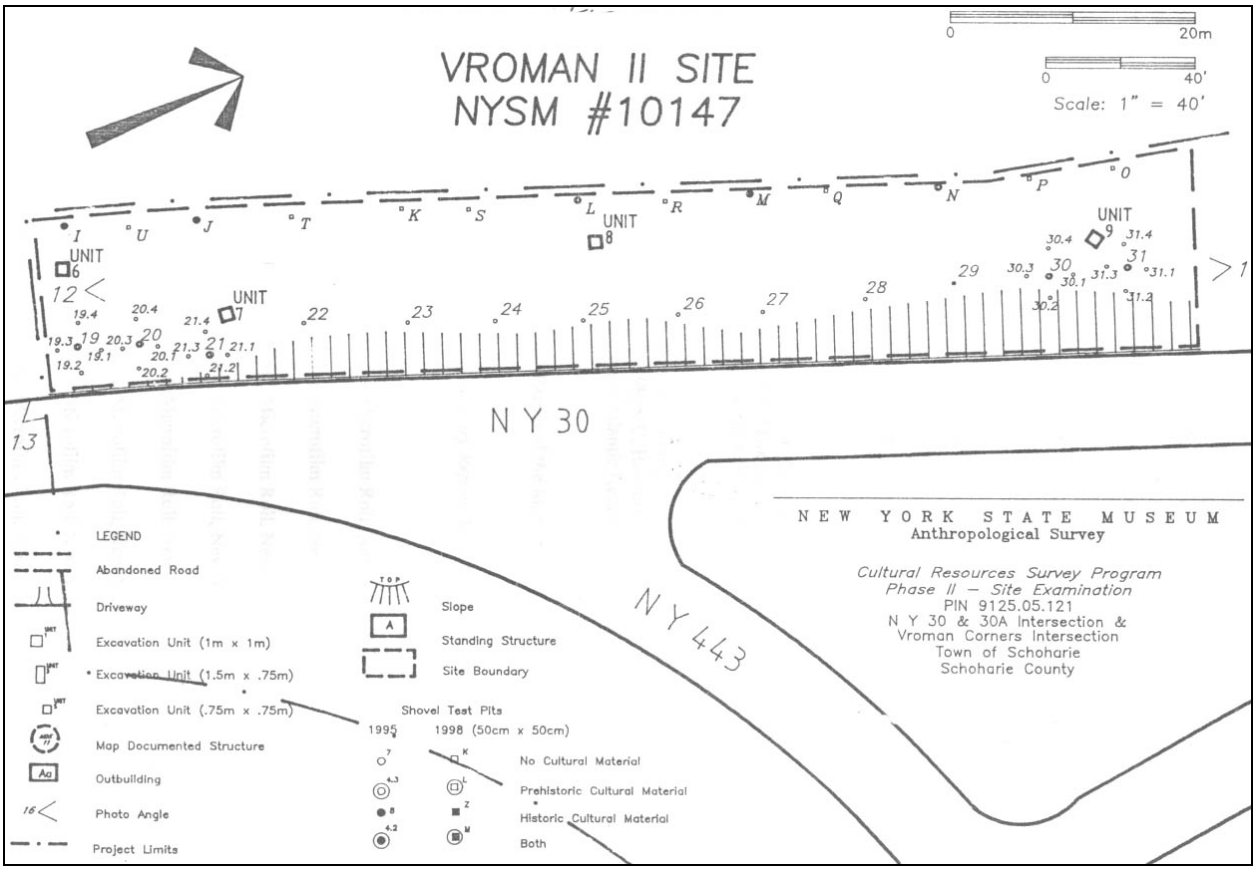


Figure 17. Map Showing the Area of Impact for the Vroman II Site (NYSM # 10147).

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