Stone Mounds atop Cushetunk Mountain
G.C Herman, Flemington, New Jersey gcherman56@yahoo.com

No. 5 looking North with Drs. Michael Serfes and Donald Monteverde, 04-09-2017

No. 12 Eastward view
Share the details of this (re)discovery

• Why it happened

• How it happened

• What it means

• I’ve decided that the best way to do share this in 15 minutes is to first cover the HCHS Newsletter article that summarizes the finds, then fill in gaps and respond to questions.
The first recorded English contact with Indigenous Americans in our area was in 1640-47 when Sir Edmund Ployden, a British citizen of Irish heritage, ventured into the province with 500 men to claim the region between the Delaware and Hudson rivers, then mapped as Noua [New] Albion. A journal account of this expedition was kept by Beauchamp Plantagenet, a member of Sir Edmund’s expedition into lands along and northeast of the Delaware River that likely included northern reaches of Hunterdon. As chronicled, 23 “Kings or Chief Commanders” of the region included two Raritan “Kings” in the north next to “Hudson’s river”. One held a fortress on Mt. Ployden located “20 miles from the Sandhay Sea and 90 miles from the ocean, next to Amara Hill…”. Plantagenet described Mt. Ployden as a “square rock, two miles compass, 150-foot-high, a wall like precipice, a straight entrance easily made invincible, where he keeps 200 for his guard, and under it a flat valley... to sow and plant.”
The mountain fortress is depicted in the 5th edition of an early colonial map of the Virginia colony (Farrier, 1657) that includes Noua Albion [NJ], but lacks details on its location. Ployden’s claim to the region, and consequently his namesake mountain, is missing on modern maps, but many have speculated that the “kingly seat” could be Hunterdon’s Cushetunk Mountain, or Somerset County’s Chimney Rock or Neshanic Mountain. Some historians have openly cast doubt on Plantagenet’s “extravagant” and “imaginary state of the Raritan King”, but the Cushetunk mounds are described in Snell’s work as “piles of stones in the forest arranged in such a manner as to leave no doubt that they had been placed there when the trees were small saplings to mark an Indian burial-place.”

He also reports that James Alexander (who purchased and surveyed large tracts of land in Hunterdon in the mid-1700s) found atop the most rugged parts of Cushetunk Mountain: “A large heap of stones piled together with some regularity that formed a rudely arched vault containing the remains of seven warriors, with their arms, ornaments, and utensils around them.

King Charles II’s patent of 12 March 1664 granted a vast expanse of the eastern seaboard to his brother James, Duke of York. The Duke subsequently granted authority for the land and governance of New Jersey to John, Lord Berkeley and Sir George Carteret. New Jersey’s first colonial governor, Philip Carteret, asserted ownership of Staten Island based on the language of the 1664 grant to Berkeley and Carteret. New York’s governors disagreed, and the question was not fully resolved until 1834.
There were beads, arm- and wristbands of bone and copper, a number of pipes, leather leggings, and other articles of Indian dress. The general appearance was that they were all warriors of the same tribe, and to each one was affixed the symbolic characters showing the order in which they had succeeded each other. There was nothing in common in these relics with those of the then existing tribe to show that they were the same people. The trees seemed to have grown there since this vault was built, and the probability is that it was the resting-place of seven generations of kings who had roamed here long before the white people came. The stones were reportedly replaced, “fearing lest the Indians, discovering his invasion of this ancient sepulcher, would be incensed against him.”

In 1956, Henry Beck (The Roads of Home: Lanes and Legends of New Jersey) raised the Cushetunk Mt./Mt. Ployden link by noting “the bold eminence” of the mountain, but he mistakenly identified Round Valley’s southern rim as the likely site of the long-lost warrior kings. As he stated, “Presumably, the graves must have been opened. Recent wanderings and inquires have brought forth no trace of these burials.” Norman Wittwer (The Dawn of Hunterdon; 1964) also pointed out that Professor Philhower, “who devoted more than half a century to the study of New Jersey Indians”, thought that Round Valley fit the location of Mt. Ployden if Lake Hopatcong is the “Sandhay Sea” and the distance to Mt. Ployden was taken along water courses rather than a straight course. Many of the stone mounds we mapped apparently have been disturbed by past foraging (note the crease in Mound 5 below). Whether these mounds are ancient Indian graves or not awaits confirmation by professional archeological work. But in my mind, this site, in conjunction with adjacent archeological sites about the headwaters of Rockaway Creek, points to the high probability of Cushetunk Mountain being Mt. Ployden and the resting place of the fabled warrior kings, among others.

To be continued......

https://www.nj.gov/state/archives/eventadventurersdocs.html
SEARCHERS SEEK INDIAN 'CRYPT'


WHITEHOUSE STATION AMATEUR archaeologists and historians have begun searching near this Hunterdon County community for an ancient Indian burial site believed to be somewhere atop Cushetunk Mountain, on the eastern shore of Round Valley Reservoir.

Meade Stapler, a member of the Northern Jersey Highlands Historical Society, said that he and others had come across an 18th-century historical reference to "an Indian crypt, a stone crypt," on the mountain.

In an interview earlier this month, Mr. Stapler said that the reference had been found in the journals of James Alexander, a noted surveyor of the New Jersey countryside during the mid-1700's.

Although Indian burial sites hundreds and thousands of years old are said to be common, only several archeological digs have yielded any elaborate findings, such as skeletons and possessions of the dead.

According to experts, the closest excavated burial site to the mountain here would be in Wallpack Center, within the Delaware Water Gap National Recreation Area in Sussex County.

There in 1972, researchers from Seton Hall University dug up the remains of two Indians, a man and a woman, who were buried with their jewelry and a musket. They were said to have died between 1720 and 1750.

Dr. Herbert Kraft, a professor of archeology at Seton Hall University who has participated in some 100 Indian digs, said he had never heard of the site here, but "might be interested in investigating it."

Dr. Kraft added that there had not been a new Indian burial dig in northern New Jersey since 1976, which he attributed mainly to a paucity of Federal funds.

Mr. Stapler said that the site here, if there is one, could contain dolmens, or calendar stones, used by the ancients as solar observatories to mark the changing of the seasons or as grave markers for tribal leaders.

Mr. Stapler is one of a small circle of amateur historians, astronomers and astrologers in New Jersey who earnestly subscribe to the otherwise unpopular notion that the Indians were influenced by Europeans who crossed the Atlantic before 1492.

The dolmens and other unusual stone arrangements are the only remainders of this foreign influence. Mr. Stapler said. Several have been found in remote New Jersey sites since 1967.

Such theories of cultural influence from other continents have been espoused elsewhere for half a century. However, it was not until 1967 that the first stone arrangement in New Jersey was discovered (by Mr. Stapler); it is on Pyramid Mountain in Kinnelon, in Morris County, and is known as Tripod Rock.

Tripod Rock, a boulder perched on three smaller rocks, overlooks a ridge a half-mile away. Its discovery was followed by those of two other stone arrangements; one on Beaurt Mountain in West Milford and one in High Point State Park in Sussex County. The latter was confirmed by the Orange County (N.Y.) Archeological Society.

At least three other stone arrangements have been reported to Mr. Stapler and the New England Antiquities Research Association, to which he belongs. Dolmens are far more popular and numerous in New England than in New Jersey.
North American - New Jersey chronology
17th century and early 18th century colonialism of the North American Mid-Atlantic margin

- 1607: Jamestown Colony in Virginia
- 1608: Henry Hudson River/New York financed by the Dutch East India Company
- 1610: English claim to Delaware watershed based on Cabot’s explorations
- 1620: Dutch trading stops on the Delaware River
- 1621: English King Charles I commissions ships to Lord Baltimore and Plymouth
- 1626: European settlement in the Delaware Valley
- 1638: Swedish settlements mapped on the Delaware River
- 1648: Pamphlet describing Mt. Ploidyen
- 1651: Farrier’s Map of Old Virginia
- 1657: First Purchase from Native Americans in Hunterdon
- 1664: English conquest and division of NJ and IV
- 1673: Dutch reclaimed NJ
- 1674: England reclaimed NJ

Sir Edmund Ploidyen’s 7-year immersion

70 years
1913

ARCHAEOLOGICAL SURVEY.

Indians pile village, on Naaman's Creek in Delaware, was discovered and explored for the Peabody Museum, Cambridge, Massachusetts.¹

Not all New Jersey shell heaps are composed of the waste part of the oyster industry. In Cape May County there are piles of clam and other shells that have been broken into many small fragments, probably in the process of manufacturing wampum beads. A typical shell heap can be distinguished from a natural shell bank by the facts that valves are very rarely found together, but scattered about, whereas they would be in contact in a natural deposit; many are broken, and the shells in the artificial shell heaps are nearly all of the same size, few small ones being found; and articles of Indian manufacture, implements, potsherd, fire-cracked stones and flint chips are hidden among the shells. In the case of very old heaps it often happens that crude implements are found toward the bottom, increasingly better ones higher up, and articles of European manufacture, obtained in trade with the whites, scattered on and near the surface. In some cases, shell heaps have been found that were used and abandoned several times. Due to this fact, sand drifted over the several layers of occupation, sand drifted over the several layers of occupation, New Jersey shell mounds were formed.

Cemeteries.—The typical graveyard is rarely if ever any surface place of occurrence. Often one may be found near a village. Again the burial mound is under a shell heap, or the bodies may be found in and among the earths in the heart of the village itself.

The typical graveyard is, however, on a warm, sandy hillock near the village. The skeletons are usually found lying on one side, drawn up "in a sitting posture", the knees before the face. In the majority of cases no objects are found in the graves, and only the black soil near the bones betrays their presence. However, in some places, notably at Chestnut Neck near New Gretna, at Morgan's Station, at Tottenville, Staten Island (politically in New York, geographically in New Jersey and occupied by New Jersey Indians), many objects have been found in the graves. The most common of these were flat-based, highly polished monitor pipes of steatite, and stone pendants or gorgets, but it does not seem to have been a custom of the Lenape or Delaware Indians to bury pottery vessels with their dead, as did their fierce neighbors, the New York Iroquois. In addition to this variation from the usual Lenape custom of putting nothing in the grave, we find other curious features. Sometimes the bodies are laid at length in the grave, as we bury, but this is unusual. Often a mere mass of disarticulated bones, bundled together, with the skull on top, is found. This is doubtless due to the custom, sometimes described by the old writers, of bringing home the bones of those who died at a distance to inter them with the tribe. Though buried, they are not articulated. These buried bones, though often made artificial burial mounds do not exist in New Jersey. They are frequently reported, but investigation has invariably shown that the Indians have made use of a natural elevation for their interments. No earthworks or mounds of aboriginal manufacture are known in the State, popular tradition to the contrary notwithstanding.

The Indian was wont to bury his dead on low hills or ridges of loose sandy soil which could be readily excavated with their crude implements of stone, horn and bone. Where this was impracticable, as was sometimes the case in extremely rocky regions, the bodies were covered by great piles of stone. Rarely in this region caves were used. Indian graves were usually shallow, only 1 to 3 feet in depth, as was to be expected in view of the difficulty they must have had in digging even in light soil. In many cases burials were apparently made immediately adjacent to the lodges or even in the very heart of the villages, if we may judge from the various kinds of refuse found on the surface. Yet this mingling of relics of the living with the bones of the dead may mean that the lodges and villages of a shifting population happened to be located on the unmarked graves of an earlier generation.

Few Indian graves and burial grounds have been discovered, compared to the thousands of bodies probably buried in this region.
Archaeology of Warren and Hunterdon Counties.

BY MAX SCHRABISCH. 1

GENERAL DISCUSSION.

FOREWORD.

The location and study of Indian habitations in New Jersey was commenced by the Geological Survey in 1912 and this report is the third published on this subject. The field work on which it is based was done in June, July, and August, 1914, and all through the summer of 1915. During this period 451 sites were located in Warren County and 462, sites in Hunterdon County, a fact that may indicate that these two counties had a denser permanent population or at least were more frequented by the Indians in their wanderings than was Sussex County, where 234 sites were found. Practically all of the sites here recorded except the rock shelters had previously been known to local collectors, from whom information regarding their occurrence was obtained. As a result of this knowledge and the local interest therein most of these sites had been carefully searched for relics, so that few were found during the present survey. The rock shelters, however, were all unknown to local collectors, and in those discovered and explored by the author everything was found "in situ," just as at the time of the redman's final departure.

There are many private collections both in Warren and Hunterdon Counties comprising various kinds of prehistoric objects.

1In justice to Mr. Schrabisch, it should be stated that it has been necessary to condense greatly this report as originally submitted. This has to some degree resulted in recasting the phraseology. Care has been taken to preserve the author's meaning even though some liberties have been taken by the editor with his language. In its revised form the report may not always express the exact shade of meaning intended, but it is hoped that if such is the case the instances are few.—H.B.K.
at Holland Station, Milford, and Frenchtown, and in others miles apart. There are indeed long stretches of the river front where nothing is found save an occasional relic. Such is the case between the mouth of Lopatcong Creek and a point opposite Clifford's Island, a distance of 2 miles, another is between Mount Joy and Holland Station, about 2 miles, a third one between Holland Station and Milford, some 3 miles, and a fourth one between Kingwood and Byram, a distance of nearly 5 miles. In all these cases the absence of sites may be explained by topographic conditions, the bluffs flanking the river leaving too little space to be utilized for camp sites.

Forty-one sites were found between Phillipsburg and Lambertville, among them four burial grounds and seven villages. The former were at Holland Station, Milford, Frenchtown, and Brookville; the latter opposite Clifford's Island, 3 miles south of Phillipsburg, at Holland Station and Brookville.

The last important site area is the Delaware Valley. Although only four sites were found in this locality, it is of considerable extent—one near the mouth of the Delaware River, the other at the present Portuguese Bridge, New Jersey.

Including a site along the Delaware River, the number of sites is 150. These include 15 towns and 130 camps, as in the Kennebec River Valley, although the Delaware Valley is much larger.

There is no doubt that the Indians made use of the Delaware River, anciently known as Kittatynnytuck, teeming with fish, an important source of food. It was a great natural highway for communication between the villages located along its banks. Moreover, the valley abounds in localities which are ideally suited for camp sites in level fields by the river's edge, high enough above it to be safe from floods, with fine sandy bottom and protected from the inclemencies of the elements by the hills all about, so that it is small wonder that the Indians were attracted to such a region. The traces of their villages suggest a certain permanency of occupation; the countless artifacts left behind denote an intense primitive industry; while the agricultural implements, such as hoes, mortars, and pestles, give proof of ancient husbandry and often indicate, no doubt, the exact spot of the redman's fields.

Paulins Kill Valley.—This includes the territory which extends from the foot of Kittatinny Mountain to a line about a mile south of Paulins Kill. It is bounded on the northeast by Sussex County, on the southwest by Delaware River. It is a

Lamington River, drains its northern half, and there are besides numerous smaller streams and large springs.

Of the fifty-nine sites located, three were workshops, as indicated by a profusion of chips covering the ground, and the others ordinary camps. Six of them were along Lamington River, twelve on Cold Brook, four on Rockaway Creek, three on the North Branch of Rockaway Creek, four high up on Fox Hill on the banks of a stream, and several more near big springs. Argillite implements predominate here as at Flemington.

Flemington and Vicinity.—This district is the most important in Hunterdon County. Considering the remarkably large number of sites crowded into a comparatively small area, we may conclude that it was frequented far more than any other thus far investigated by the Survey, not even excepting some of the sites in the Vidal Valley, whose area is almost six times as large as Flemington. Three of the sites are almost in the center of the region, and the others are scattered over a considerable area. Four of the sites are along the Delaware River, while the rest are at some distance from the river. Argillite and other stone implements are found in all the sites. The region is also noted for its large and other extensive deposits of raw material, as well as its large and other extensive deposits of stone and other raw material.

The Indians seem to have been attracted to this region by the occurrence of immense argillite deposits, a rock well suited for the manufacture of arrowheads, spear points, and other tools. It was the center of the ancient argillite industry and the quarries once operated by them are perhaps the most extensive in all New Jersey. More will be said about this subject in the chapter on raw material.

This region also appealed to the redman because of certain topographic advantages. Being situated along the northeastern base of a plateau, it was sheltered from north winds. It is a fertile stretch of country dotted with ridges and knolls and its surface soil consists of red shale loam. Hydrographically, too, it leaves nothing to be desired, being drained by the South Branch of Raritan River and many affluents, the largest of which are Mine\(^1\) and Walnut brooks and the three Nesanic rivers.

Among the 82 sites located there were at least two which appear to have been regular village sites by reason of the variety and number of implements they yielded. One of these is at

\(^{1}\)Mine Brook as named here is called Walnut Brook on the State map, and the name Walnut is here applied to the branch which joins it about a mile south of Flemington.
EXPLANATION

- **U**: Major geological fault (U; up-thrown and D; down-thrown fault blocks)
- **Creeks and rivers**
- **Indian villages noted in 1913-14.**
- **200-million year igneous rocks**

Note: Generalized geology of the Flemington area displayed using Google Earth. Geology adapted from Drake and others, (1997). White lines are fracture traces modified from Herman (2015).

References:


The following, having reference to the Indian bands which were formerly located in Hunterdon County, is from a series of papers entitled “Traditions of our Ancestors,” published in the Hunterdon Republican about ten years since:

“Are there any proofs of Indian tribes dwelling in the vicinity of Round Valley and Cokesbury? William Alpaugh, now (1870) somewhat advanced in years, living in the east end of the valley, says that when he was a boy he frequently spoke of [with?] an aged man who had lived in that section before the Indians had quit it. He often went, in company with other boys, to fish in the streams near by, and, while they used hooks, the Indians shot them with spears and arrows. When they came to divide the fish the Indians were always very precise about it, taking care that each one should have his exact share. Mr. Alpaugh says that he has seen, near Cokesbury, numerous Indian graves ranged in rows and surrounded by stones piled upright around each mound... On the farm where Abraham Hunt now lives, near Cokesbury, there were standing, fifty years ago, near a stream, a number of huts built of sticks, and from four to six feet high, very dilapidated; and tradition does not give the time when they did not stand there. This fact is some evidence that the tribes of this section made their home here.

East Jersey under the proprietary governments: a narrative of events... By William Adee Whitehead
Towards the end of the Archaic (shortly before 3000-4000 years ago), some societies in the Eastern Woodlands began burying their dead in low, natural ridges and hills. Then around 1000 B.C., perhaps earlier, mortuary rites assumed increasing importance and complexity - people began building small artificial mounds under which their dead were buried (a few mound burials date as far back as 5600 B.C. in Labrador). By 500 B.C. this burial mound ceremonialism extend across a broad region of the Eastern Woodlands, from the western Appalachians to the Mississippi Valley, and north into Wisconsin and Michigan.
Cairn

From Wikipedia, the free encyclopedia

A cairn is a human-made pile (or stack) of stones. The word cairn comes from the Scottish Gaelic: càrn [ˈkʰaːɾn̪ˠ] (plural càirn [ˈkʰaːɾn̪ˠ]).[1] Cairns have been and are used for a broad variety of purposes, from prehistoric times to the present.

Dolmen

From Wikipedia, the free encyclopedia

For other uses, see Dolmen (disambiguation).

A dolmen (IPA: /ˈdɒlmən/) is a type of single-chamber megalithic tomb, usually consisting of two or more vertical megaliths supporting a large flat horizontal capstone ("table"), although there are also more complex variants. Most date from the early Neolithic (4000–3000 BC). Dolmens were typically covered with earth or smaller stones to form a tumulus. In many instances, that covering has weathered away, leaving only the stone "skeleton" of the burial mound intact.
The **Round Valley Reservoir** in Clinton Township in Hunterdon County, New Jersey, United States, was formed in 1960 when the New Jersey Water Authority constructed two large dams and flooded a large valley. The reservoir is named after the naturally formed circular valley surrounded by Cushetunk Mountain. The deep valley was caused by erosion of the soft sedimentary rock. The surrounding ridges of Cushetunk Mountain endure because they are underlain with dense and durable volcanic rock diabase that cooled slowly under the surface of the earth.

Round Valley Reservoir’s otherworldly mystique took shape in recent decades as the deaths mounted. Not only did they occur soon after fishing was allowed there in 1972, but they didn’t slow down, occurring as recently as March when the body of a hiker — an apparent suicide — was found.

The legend took hold because six of the bodies have never been recovered, and authorities believe they’re somewhere in the reservoir’s 180 feet of water.

The first victims to go missing were Thomas Trimblett, 27, of North Arlington, and Christopher Zajaczkowski, age unknown, of Jersey City. Both men were fishing in a 12-foot aluminum boat on May 4, 1973, when it capsized on the reservoir’s east side.

Four years later, Craig Stier, 18, and Andrew Fasanella, 20, both of Trenton, were last seen traveling along the north shoreline. Their canoe washed ashore days after their reported disappearance.

On March 18, 1989, John Kubu, 37, of Rahway, vanished during a fishing trip with Albert Lawson. Lawson’s body was found in 1993.
**Airborne Laser Scanning: Remote Sensing with LiDAR**

- ALS/LiDAR is an active remote sensing technology that measures distance with reflected laser light.

- LiDAR: Light Detection and Ranging or Laser Imaging Detection and Ranging)

- 1st developed in 1960 by Hughes Aircraft inc.

- Modern computers and DGPS make it practical.

- Typically used in very accurate mapping of topography.

- New technologies and applications are currently being developed.
Trail map with GPS Track from 2nd ascent, February 5, 2017

1st ascent, January 22, 2017

Made my first ascent with Charlie Doodle. From about 12:30 – 2:30 pm. GPS and phone left behind, at this time just a cursory hike... There may be something there. There are crude stone-cleared paths not suitable for vehicles. Flat areas and a couple of unusual accumulations of scree. One looked like an excavated pit of stones. Didn’t make it all the way up. It was dreary, foggy, and wet. We did all we could to keep our footing and breath. I need to revisit. Crossed a blue trail after approaching on the south side of the utility line. There was one excavated pit, a hunting blind, and lots of moss. Medium-grained pink granite.
Ascent No. 2

2017
Figure 23. GE view of the Cushetunk Mountain area showing archeological site 28-Hu-587 with respect image overlays of NJDEP 1930 aerial photography. The 5.5-acre study area is highlighted yellow and labeled near the top.
2018 Site characterization

April 7, 2018

Largest stone mounds

outcrop

GPS track

0 160 m

N

Jacob Buxton
Ray Simonds
2005 Taco
J. Mark Zdepski
The top of No. 3 is barely visible from the trail during the spring.

The top of No. 5 is also visible from the trail during the spring.
Mark Zdebski looks at No. 3 (apparently undisturbed). Photograph viewed looking East.

No. 5 looking North with Drs. Michael Serfes and Donald Monteverde, 04-09-2017
No. 6 is excavated in the center

2018
No. 12 is ~42’ long (Westward view)
With respect to the natural character of the cairns, the following set of observations stem from our repeated visits to the area:

1) Nowhere on the mountain sides or top are there any other stones of geological composition other that trap rock (diabase).
2) The stones range in physical dimensions from the largest being blocky, less than a meter in length and less than one-third meter in thickness and width, to the smallest of size that is rounded and fits comfortably in the palm of an adult human.
3) All of the stones can be found locally on the rocky slopes of the ridgetop nearby, and many of the ridgetop mounds are set among stony soil having similar stones strewn about as part of the natural landscape.
4) With the exception of the longest structure (cairn 012), those on the SE secondary ridge (003-006) are the only ones set on ground relatively clear of other stones.

The rounded, spherical nature of many of the smaller stones is a natural weathering phenomena resulting from trap rock being repeatedly subjected to freeze-thaw cycles. This process slowly exfoliates and rounds the otherwise blocky corners formed as joint-bounded lithons like those seen in place in nearby outcrops and like the larger, blocky, sub angular stones previously excavated from the lowest levels of the bigger, disturbed cairns like 005 (fig. 17). The boulders and now are strewn atop smaller ones because of the disturbance as if they were once used in the assembly of ‘crude vaults’ at the base of the larger cairns. When standing near some of these structures, one sees that many of the smaller, rounded stones pepper the top of the heap, as if placed there through gradual accumulation by passing individuals rather than at once during construction of the cairn.
Figure 24. A DJI drone was piloted by Ben Brandner to investigate adjacent areas where other cairns may occur. The drone overflights helped set the site limits by providing high-resolution photographic and video footage of the hillside (figs. 25 and 26) for use in Google Earth as image overlays (fig. 27). The top view shows a 3-dimensional perspective of two separate overflights with most footage shot within 100 meters (328 ft) of land surface. Lower altitudes required navigating between trees to capture still imagery of some of the larger cairns (fig. 17).
Figure 12. Google Earth display of stone cairn locations showing the associated GPS tracks of five different excursions into the area during 2017 to 2019 to locate and characterize the cairns and define the area of interest for future archeological work. A hill-shaded DEM (Sun azimuth 300 and inclination 40) is shown here overlain at about 70% opacity. Note that four later ascents originated from parking areas at private residences whereas the oldest one (yellow) followed a public access trail originating from the ridge base about one-kilometer away. The placemarks noted above all fall within a 5.5-acre polygonal area.
Figure 17. Cairn 005.

Cairn 005 is one of the largest and excavated in the center.
What does it all mean?

- What is the nature of these mounds?

- The Early Woodland Adena culture (800 BC to AD1) precedes the Late Woodland (800-1600 C.E.) occupation by the Lenape by many generations.

- Were the Adena and mound builders more prevalent than realized resulting in expanding the Adena map area beyond its ‘core’?

- Do they represent cultural overlap and inheritance of pre-Columbian societies?
800 BCE - 1500 CE
Mississippian culture

1000 BCE - 500 CE
Adena culture and Hopewell complex

7500-500 BCE
Archaic Florida culture

7000 BCE – 1000 CE
Maritime Archaic

Great Plains
Archaic Paleoindians
8000-4000 BCE.

8000-5000 BCE
Mississippian culture

7000 BCE – 1000 CE
Maritime Archaic
Maritime Archaic Burial Mound National Historic Site of Canada

A plaque Site of National Historic Significance. This site marks the burial site of a Maritime Archaic child who died about 8,000 years ago. Various artifacts were discovered buried with the remains of the child including a walrus tusk, harpoon head, painted stones and a bone whistle. An exhibit about the site is displayed at the Labrador Straits Museum at L'Anse au Loup.
Severe weather alert in Philadelphia, Montgomery, Delaware, Chester, Bucks, Berks, Northampton and Lehigh counties.
September 5

Berks man believes he has found Indian burial ground, artifacts

Rick Zimmerman, of Richland Township who lives near Crystal Cave says he believes he has found Native American artifacts on his property. Stone tools, burial grounds that include mounds of shale rock piles facing east and memorials.
THE DELMARVA ADENA COMPLEX: A STUDY OF THE FREDERICA SITE, KENT COUNTY, DELAWARE

Darrin L. Lowery

The last in-depth archaeological study into the Delmarva Adena Complex occurred 25 years ago. Recent interpretations about this complex are based largely on repeated variations and modifications to earlier published social and ecological models. A "hidden" assemblage from a small feature found at the Frederica site (7K-F-2) in 1964 has afforded a rare opportunity to gain new insights into this elusive cultural complex. The collective data from this feature and other archaeological sites in the area both challenge and support many of the earlier interpretations about the Delmarva Adena Complex. As published in the literature, the Delmarva Adena Complex seems to represent a chronological continuum encompassing pre-Adena, Adena, and Hopewell in the Ohio Valley. A revision to the definition of the Delmarva Adena Complex is proposed, as well as recommendations for future research.

INTRODUCTION

Though not recognized at the time, the earliest documented evidence of an Adena presence on the Delmarva Peninsula was discovered in the mid-nineteenth century and illustrated in Schaff's History of Delaware (1888:15). In his discussion of the "aboriginals" of Delaware, Schaff (Fig. iv) illustrates an eight-inch stemmed flint knife (Figure 1), which resembles a Robbins Adena biface. He also illustrates a smaller flake which may have been an Adena leaf blade or preform. At the time, no one recognized the significance of these items. Almost one hundred years would pass before the presence of an Adena-related manifestation on the Delmarva Peninsula would be acknowledged and accepted.

In early 1930s, an Adena-related discovery occurred at the Sandy Hill site (i.e., 18DD030) on the south bank of the Choptank River near Cambridge, Maryland (Ford 1976). The construction of a seawall at Sandy Hill had unearthed burials and associated caches of Adena artifacts almost 25 feet below the ground surface. The Adena discoveries were in the same general area where Henry C. Mercer (1897) had unearthed a late prehistoric or contact period ossuary at much shallower depths almost forty years earlier. Reports on the Sandy Hill site (Jackson 1954; Dunn 1966; and Ford 1976) suggest that the area may have been used as a cemetery for at least three millennia. Ford (1976:Figure 20-a-g) illustrates typical Late Archaic bifacial blades and three biface tools (Figures 33-a-c) from the site. These Archaic artifacts are clearly out of place when compared to the other Delmarva Adena assemblages. Dunn (1966:3) indicated that the Sandy Hill site produced two radiometric dates of 1,400 years B.C. and another date of 575AD ± 175 years. The associated contexts and specific details about these reported radiometric dates have not been verified. The ossuary reported by Mercer (1897), the mixed collections found at the site (Ford 1976), and the two elusive published radiometric dates (Dunn 1966) suggest that Sandy Hill was used as a cemetery for at least 3,000 years spanning the Late Archaic period through the contact period.

In 1933, a burial was unearthed near a small road adjacent to Brown's Branch, a tributary of the Muddykill River in Kent County, Delaware (Westlake 1968:189). Like many of the Delaware Adena sites, the Brown's Branch burial was discovered as a result of road-fill excavation. Based on the author's examination of the collection from the site, the Brown's Branch burial included broken or "killed" Adena bifaces, tubular pipes, a gorget, white quartz lanceolates, and copper beads. A few years later in 1934, an-
The Delmarva Adena Complex may be nothing more than a mortuary expression of the early Fox Creek or Carey Complex in the Chesapeake and Delmarva area. The dichotomy noticed between the exotic artifacts typically found at mortuary locations compared to the functional items discovered at habitation sites in the local region may be similar to the differences evident among both Adena and Hopewell mortuary and domestic sites in the Ohio Valley (see Otto and Redmond 2008). Finally, the early radiometric ages for some of the Fox Creek sites in the Chesapeake region raise the question of the origin of Fox Creek as an archaeological complex. Obviously, future site excavations and updated radiometric assays for some of the reported sites would help address these issues.

Exotic trade items were significant to both Adena and Hopewell in the Ohio Valley. Marginella shell, whelk shell, and fossil shark teeth (see Colvin 2011; Lowery et al. 2011) represent a few of the recorded exotic items. By assessing the published mound site inventories (Hothem 1989), it becomes evident that both marginella shell and whelk shell ornaments are far more common than fossil shark teeth. Recent research indicates that approximately one hundred and fifty fossil shark teeth have been found at all of the combined Ohio Valley sites (Colvin 2011). In contrast, thousands of marginella beads and numerous whelk shell ornaments and cups can be found in a single mound (Hothem 1989:73-75). Some researchers in the Ohio Valley (Seeman 1979) have suggested that the marine shell and fossil shark teeth from the various mound sites originated from the Gulf Coast or along the southeastern Atlantic seashore. Importantly, the Middle Atlantic has largely been disregarded as a possible source area for these exotic trade items (see Lowery et al. 2011).

The patterning and the distributions of Delmarva Adena mortuary sites, isolated finds, and caches in the Chesapeake Bay area and the Delmarva Peninsula are not random (Figure 19). The collective data from archaeological site files and collections from the Delmarva Peninsula indicate that the majority of the Delmarva Adena sites are situated in the central Chesapeake Bay area and extend east along the margins of the Chesapeake River in Maryland. The sites continue east from the headwaters of the Chesapeake River across

**Figure 19.** A Chesapeake Bay – Delmarva Peninsula map showing the distribution of recorded Delmarva Adena Complex sites in the region. The majority of the sites are situated along the margins of the Choptank River in Maryland, east across the Delmarva drainage divide, and within the St. Jones and Murderkill drainages in Delaware. The locations on the Delmarva Peninsula that produce important Adena and Hopewell trade resources (i.e., fossil shark teeth & marine shell) are also plotted.

Additional Hopewell-related items (Figure 24), as well as Hopewell-era radiometric dates have recently been obtained from excavated features at sites on the lower Delmarva Peninsula (Lowery 2003). With respect to both Adena and Hopewell, recent research suggests that there is considerable chronological overlap between the two mound-building cultures, which may ultimately indicate that they are different parts of a single ceremonial system (McCord and Cochran 2008:356-359). If we exclude those sites or features that pre-date the appearance of Adena in the Ohio Valley, the onset of the Delmarva Adena Complex should post-date 500 calBC. The end of Adena in the Ohio Valley occurred circa 200 to 400 calBC. If we include Hopewell within the continuum of Ohio Valley influence (see McCord and Cochran 2008:346), the terminus of the Delmarva Adena-Hopewell Complex should occur circa 450 calAD. On the Delmarva Peninsula, it is clearly possible that exotic Ohio Valley artifacts were in circulation well after the demise of both Adena and Hopewell. As such, archaeological sites on the Delmarva Peninsula with associated Adena-Hopewell objects which post-date 450 calAD could still be included within the complex.

To meet the strict definition of the Delmarva Adena Complex, only those sites on the Delmarva Peninsula with diagnostic artifacts matching examples found at Adena sites in the Ohio Valley would fit the designation. Sites like Carey Farm that have revealed a Hopewell Snyder’s corner-notched point (Custer et al. 1995) do not meet the definition. The Carey Farm discovery would be Hopewell, but not Adena. However, the Carey Farm find could easily be included within an expanded Delmarva Adena-Hopewell Complex. Researchers investigating the Hickory Bluff site in Delaware (see Petraglia et al. 2002:19-25) have stated that a slate ulu fragment may be associated with the Delmarva Adena Complex. As an artifact type, slate ulus are clearly out of the realm of possibility for inclusion within the complex since none have been reported at Adena or Hopewell sites in the Ohio Valley.

**Figure 23.** A map showing the suggested Ohio Valley Adena-Hopewell trade corridor across the region based on the patterning of sites in Figure 19 and the distribution of trade resources.
of the others was not cremated. Pit dimensions were not preserved, but Dr. Ruggles's field notes do indicate that "the heads were at a depth of 11 inches [28 cm] in a small clump of charcoal." Some were also discovered 5 to 8 cm below the surface in an area which had been "disturbed previously or by soil erosion." In all there were 14 short tubular beads of this sheet copper and 23 small, ring beads with overlapped ends. A shard of interior-white corded Vixoline-like pottery was also discovered in this grave.

CONCLUSIONS

It is evident that there are significant similarities as well as differences between the materials from the Rosenkrans site and those from the typical Middle Eastern Adena sites. In the Eastern Hemisphere of Adena, Ritchie and Dragoo list 33 "Diagnostic Adena Traits" in the Middlesex Complex. They cite the Rosenkrans site as sharing in 18 of these traits—more than any of the other 19 sites used in their survey (ibid., Table 3). In a comparison of "Less Diagnostic Adena Traits in the Middlesex Complex" the Rosenkrans site is said to have 6 such traits, being outnumbered only by the Clayville and Kipp Island sites (ibid., Table 4).

In reassessing the material remains from the Rosenkrans site it is fairly obvious that such a check list is inadequate for purposes of evaluating the degree of Adena-relatedness. For example: Rosenkrans is identified as having leaf-shaped blades; true, but there are precious few of them and they are not the diagnostic Adena type. Moreover, the Rosenkrans site has absolutely no "Adena" or "beaver-tail" points and no true "Bubba" points (Dragoo 1962:111, 112). The gorgets are not typical; neither are the bone tools and, most obviously, no mounds are related. On the other hand, there are some very strong relationships—the blocked-end tubes, the copper artifacts, and, if my interpretation is valid, the "wolf man" skull.

Ritchie circumvented the "Adena" problem by defining a "Middlesex complex" (Ritchie 1962). He postulated affiliations with the Adena culture of Ohio on the grounds of certain shared traits, particularly a diagnostic tubular pipe form, "the blocked-end tube." It was concluded that the Middlesex "focus" in New York and New England represented infusions of elements of the Adena culture of Ohio into regional native cultures of the Northeast (Ritchie 1938: 101-2, 1941: 112-15, 188-187, 1941: 122-123). Later Ritchie and Dragoo (1939: 1950) saw Middlesex as essentially Adena in the north, the locally varying products of contact metathesizations of actual splinter groups of Adena people and already resident groups, rather than random trait diffusions from the Ohio center. (Ibid. and Ritchie 1962:201).

The purpose of this presentation is to create a greater awareness of Adena and Middlesex-related sites in the East and the Northeast. We are all aware of the many problems of identification and interpretation. We realize that much more information and study is needed before we can understand the people and the phenomena represented by their sites. There can be no denying the common thread that runs through all of these mortuary complexes from Ohio and West Virginia to the Delmarva Peninsula and north through New York State into Vermont and New Brunswick. Even more tantalizing is the trade or culture contact relationship that is alluded to by the metal artifacts made from Lake Superior copper, the olives and margarita shell from the Carolina-south to the Gulf of Mexico, and the little materials from Labrador, Montana, Arkansas, Ohio and elsewhere. These are all most colorful people, who have left as with the more problems than answers. Following are a few of the problems and observations that have impressed me concerning the Rosenkrans site.

The location on a sandy bluff above the Delaware River (Map A, Fig. 1) is interesting, but the site itself is not particularly impressive. It could be dupliated or bettered at a number of spots up and down the river. One wonders why this site was chosen for the cemetery, and whether the houses of the living were close-by. No evidence has yet been discovered to identify a hombestant or settlement of these people in the Upper Delaware Valley. If the people did live close-by, how many years might have passed between the first and last burials? Where did these people come from and where did the survivors go? There is a similarity among certain
MAP 1: U.S.G.S. map of the Upper Delaware Valley showing the Wallpack Bend and the location of the Rosenkrans Site.

FIGURE 1: Aerial view of Wallpack Bend, Sussex County, New Jersey, with site indicated by the symbol ●.

FIGURE 2: Artifacts associated with Burial #1. a-e, two hole gorgets (note thong wear in d); f, pentagonal slate pendant; g, unfinished pendant (?); h, k, chipped adz. Projectile points: a-s, Cresap points; m, undefined side-notched point; g-i, Kittatinny points; j, argillite knife.
Ohio Archaeological Cultures

Geographic distribution of the Adena (800 BCE–100 AD), Hopewell (200 BCE–500 AD), and Fort Ancient (1000–1750 AD) cultures.

Hopewell Interaction Area and local expressions of the Hopewell tradition.
The subject of prehistory, as applied to the land now embraced by the borders of Hunterdon, is generally associated with the ethnology of the local Indian tribes. One might introduce the story of Hunterdon by letting the land emerge from mist-shrouded corners of geological and paleontological development, the treatment, of necessity, being of a more general nature than what this booklet purposes to present. It is more appropriate, in these few pages, to confine our attention to subjects that belong to Hunterdon alone or otherwise contribute to her history.

That the Indian dwelt in present Hunterdon County previous to the white man’s coming is well known. It is apparent in the abundance of relics that have been, and are yet being found, and the names, still in use, that they gave to streams, hills and villages. We know that Indians called themselves Lenni Lenape, or “Original People,” and that the colonists renamed them Delaware, after the river along or near which most of them lived. How and when they reached New Jersey are questions that remain to be answered. Archeological evidence indicates that New Jersey has been inhabited for at least five thousand years, though it fails to establish an ancestral tie between the Lenape and the inhabitants of the Archaic Period. According to what is reputed to be Lenape legend, they originated in Canada and migrated through western New York to Ohio, thence eastward toward the Atlantic, arriving in New Jersey only a few hundred years before the European colonists. Attempts to trace the migration archeologically have led to no definite conclusions.

dialects leads to the possible conclusion that this was border territory, perhaps first in possession of one tribe and then in possession
• It’s possible that these are Adena and later (pre-Lenape or Lenape?) mounds considering the detailed description of the remains including abundant copper artifacts.

• Multiple Adena complexes occur in the region.

• What’s next?

• Probably nothing, but perhaps a preservation awareness campaign is warranted.

• But leaving them alone is probably the best.