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INDIAN FORTS OF THE MID-17TH CENTURY IN THE SOUTHERN NEW ENGLAND-NEW YORK COASTAL AREA

Ralph S. Solecki

According to a recent hypothesis in connection with the emergence of the wampum trade, some 17th-century Indian forts in the southern New England-New York coastal area were built as trading stations rather than for defense or refuge. This proposition has not been fully explored. An examination of the data from the known Indian forts on Long Island and across the Long Island Sound in Connecticut and Rhode Island indicates that the proposition needs review. Only three out of nine forts discussed here appear to qualify as trading stations. These date comparatively late in the second half of the 17th century.

Selon une récente hypothèse concernant l'émergence du commerce du wampoum, certains forts amérindiens du XVII^e dans la région côtière du Sud de la Nouvelle-Angleterre et de New York ont été construits comme postes de traite plutôt que de défense ou de refuge. Cette hypothèse n'a pas été explorée dans le détail. Il y a lieu de la revoir à la lumière d'un examen des données provenant des forts amérindiens connus de Long Island et d'au-delà du détroit de Long Island au Connecticut et au Rhode Island. Seulement trois des neufs forts portés à l'attention semblent constituer des postes de traite. Ces forts remontent à une époque relativement tardive de la seconde moitié du XVII^e siècle.

Dissenting from the general opinion that the accepted function of the palisaded Indian forts in the southern New England-New York coastal area were defensive or refuge structures, we have the recent suggestion that at least some of them were built primarily for the Indian trade. Lynn Ceci (1980), who has made an analysis of the role of the wampum trade in the northeast, appears to think that Indian forts built on waterways were purposefully located for access by colonial traders. Her proposition is an interesting one and well worth exploring.

Construction of forts by the Indians appears to have been known well before the arrival of the Europeans (Ford and

Wiley 1941: 357-359; Hadlock 1947: 217; Squier 1850: 10; Thomas 1894: 667, 671). Beauchamp (1891: 51) estimates that nearly 200 defensive works were noted by all observers in New York state. When Champlain visited the coast of New England in 1605, he found in Maine a permanent Indian settlement surrounded by a palisade wall. Outside were scattered wigwams and small gardens. The Indians took refuge in the fort when attacked (Bushnell 1919: 18-19). Bushnell (1919: pl. 4a, 4b) illustrates two Indian forts from the 1651 Map of Novi Belgii, which he ascribes to Van der Donk. One is a rectangular palisaded Mahican village, and the other is a Minisink

village enclosed by a round palisade enclosure with an overlapping entry way. Williams (personal communication, 1968) says that no evidence of fortification has been found in the Minisink area despite intensive survey and excavations. Brasser (1978: 198) says that the Mahican Indians usually selected hilltops near the river for their palisaded villages. Beauchamp (1891: 10-11), on the other hand, notes that although camps were on the river in New York, towns and forts were almost always some distance from them. The Mahicans wanted not only strong positions, but situations where they could not be reached by waterways and canoes. Similarly, Ritchie and Funk (1973: 363) say that Iroquois sites of the early contact period between 1615 and 1635 on the Mohawk River were located well back on high, readily defended hills.

Regarding fort construction, it is reported by Beauchamp (1905: 13-14) that the Indians used logs burned to three paces in length (about 15 ft, 4.5 m) for their palisades. Champlain and Cartier (Hodge 1910: 471) had observed that some Iroquois fortifications had 20-ft-high walls (6 m). One especially towering structure had quadruple interlocked palisades 30 ft high (9 m) (Beauchamp 1905: 113).

Van der Donck (1656: 197) describes a fort construction that, upon disintegration, would leave no trace. He says that the Indians first laid down large logs along the ground in the outline desired, adding smaller logs in a heap. They set logs upon both sides of the heap in a kind of inverted "V," so that the upper ends crossed each other. The upper ends were joined together for stability. Finally, tree trunks were placed in the crossed upper ends, which solidified the whole structure in a firm bulwark. It did not require any buttressing

or any excavation. Beauchamp (1905: 111-112, pl. 2) suggests that the earlier Indian forts had this kind of construction. A kind of gallery along the top of the works could be set up around the whole perimeter for defense.

The more economical use of timber for making a palisade was to set individual logs in the ground around the perimeter, and to bank earth against both sides for stability. Three methods of setting the posts in place were apparently known in the New York-New England area. The first method was to scoop out individual holes in the ground for each post. This involved the labor of excavation using either a wooden spade or scoop or a similar implement, or perhaps a large marine shell. The logs were then set in and firmed up. Another method, best used in sandy soil, was to excavate a continuous trench with a hoe of some kind to a depth of two and a half or three feet (Willoughby 1906: 105). The logs were then set down into the trench and stabilized with earth on both sides of the wall. These first two methods could be done without benefit of any European metal tools. The third method, which appears to have been used in the post-contact period, was to sharpen the basal ends of the palisade logs, and to drive the posts down into the ground. Whether the posts were driven down is an open question, as it would appear that someone would have to clamber up somehow to the top of the structure and pound the posts home with some kind of heavy mallet.

We find support for the above methods in early documentation and archaeologically. Philip Vincent (1638: 105) of Mystic Fort, Connecticut massacre fame, gives us a much quoted description for fort construction in New England. He says that the palisade posts at Mystic were about as thick as a

man's thigh or the calf of his leg. The posts were about 12 ft (3.6 m) high, and were rammed into the ground about three feet, "with undermining." Earth was cast up around the walls for extra protection. The palisade defenders shot arrows at their aggressors through "loop holes" in the palisade wall. These holes were formed by fitting undressed logs together, leaving spaces between individual logs. Squier (1850: 82) thought that an embankment of earth from the surrounding ditch was essential in fort construction for the erection and support of the palisade. He suggests that when iron implements became available, the laborious work of digging and propping up the posts became unnecessary. To Squier, this explained the finding of palisades without trenches and accompanying embankments of earth.

Regarding the change from circular or round to rectangular or oblong forts, Squier (1850) thinks that the modification was probably the result of imitating the Europeans, or came from the newer modes of fighting with firearms. Given the practicality of the matter, however, it was most certainly the introduction of the iron implements that was the deciding factor. The bastion, as a fort feature in this area, appears to have been a late post-contact phenomenon, most likely following the European mode of fort construction, because it was not found on more ancient Indian fortifications (Squier 1850). Beauchamp (1905: 114) says that the French showed the Indians how to use the bastion, and the English built forts and blockhouses for them.

The palisade structures were no doubt adequate defense for the Indians in pre-contact times, and provided security for women and children. They were, however, usually very flimsy and no match against the guns of the colo-

nials, with their European industry and talent in waging war. As a matter of fact, as Van der Donck (1656: 197) has observed, the palisaded villages did more injury than good, as they proved to be a death trap. To the European, war was a deadly business for professionals. To the Indians, it was a kind of manly sport (Denton 1670: 9; Underhill 1638: 40-41).

The Long Island Indian Forts

At present we know of five, or possibly six, Indian forts on Long Island (FIG. 1; Parker 1922; Solecki 1950). Tooker (1888) believed that each of the "13 tribes" of Long Island had a fort, or at least a place of refuge. This is not an unlikely possibility given the strained relations of the late prehistoric and early historical times on Long Island. We have some archaeological knowledge proving the existence of four of the forts. The fifth, on Shelter Island, is fairly well documented in the colonial literature, but has not yet been located archaeologically. A sixth, near Montauk Point, is fleetingly mentioned in the literature and its status is unconfirmed. The Long Island forts are summarized as follows.

Fort Massapeag

Located in the town of Massapequa, a suburban community on western Long Island's south shore off South Oyster Bay, Fort Massapeag is on the edge of a salt marsh in an area known since the late 17th century as "Fort Neck." It is on a small rise of ground about 660 yd (594 m) from the bay, and about the same distance from a creek to the west. Still preserved by the township in a mini-park, the site lies about 8 to 10 ft above mean sea level. It is situated

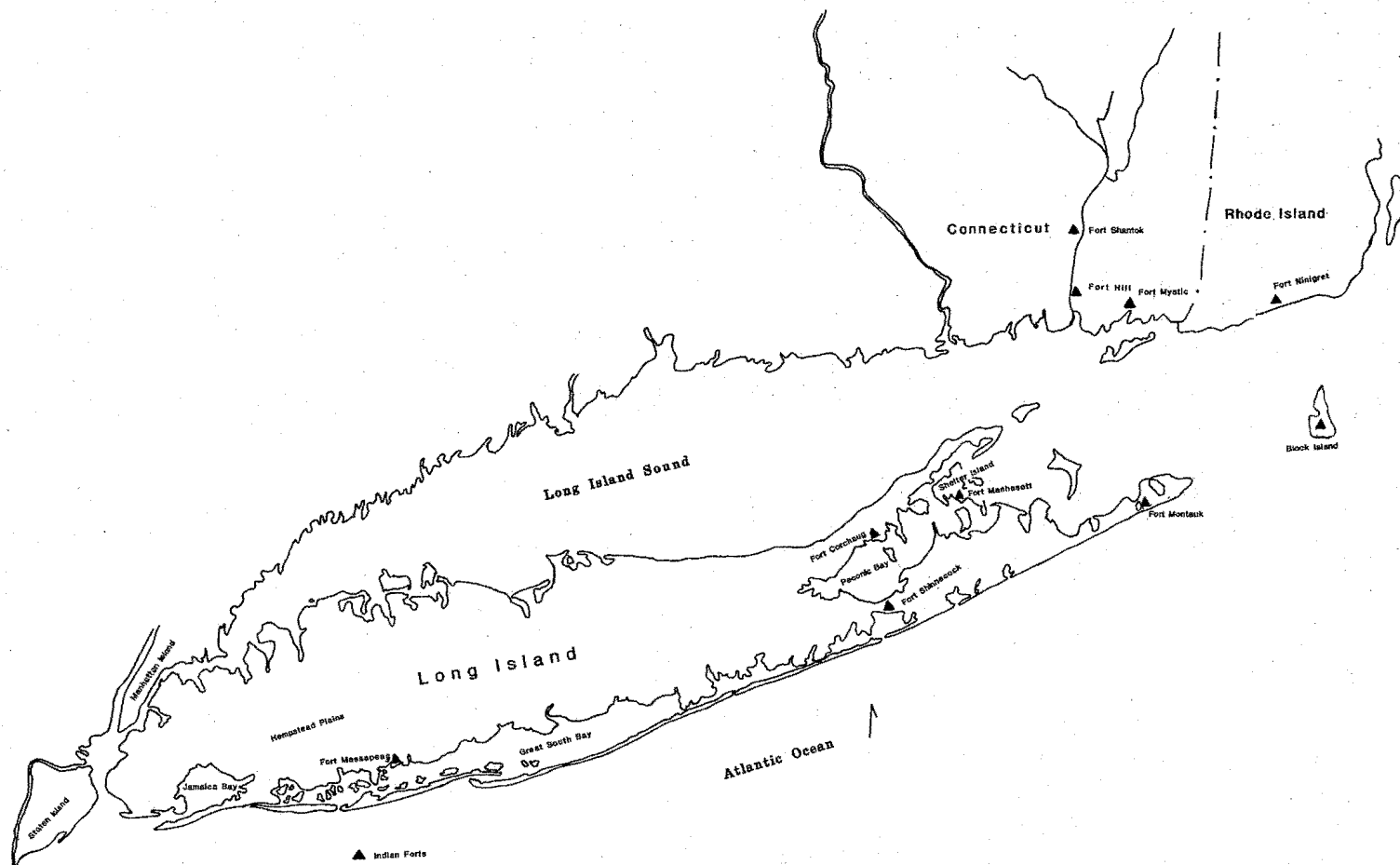


Figure 1. Locations of Indian forts in the southern New England-New York area.

about 500 yd (450 m) southwest from the main Massapequa Indian village and burial ground. Attention was first drawn to the fort earthworks through a communication in 1811 of a local resident, Judge Samuel Jones, to the New-York Historical Society (Clinton 1821). Jones said that there had been another Indian fort, long since eroded away, on the southern most point of the salt meadow on the bay. Fort Massapeag was very likely gone before the Fort Neck properties were drawn up in 1684 (Barck 1926-1927: 57, figure opposite p. 92). No traces of either fort are shown on the map, but the surveyor indicated that at least seven Indian houses were present on Fort Neck. It is very likely that the palisade posts, precious commodities in a timber-poor area, were removed after the forts were abandoned.

Judge Jones could be blamed for starting the unfounded tale that Captain John Underhill, also of Mystic Fort massacre fame, slayed the Massapequa Indians near Fort Massapeag in 1653 (Solecki n.d.). The fort was brought to scholarly attention in an archaeological journal by Burggraf (1938). About the same time in the 1930s, Smith (1950, 1954) and Solecki (n.d., 1985) independently and together visited and measured the site. All of the fort ditches and embankments were plainly prominent. The fort was almost exactly 100 ft square (30 m) within the ditches. There were two bastions, one on the northwest corner and one on the southeast corner, and a break in the embankment on the northeast corner, which may have been one entryway, albeit a narrow one. The major entryway appears to have been at the southeast bastion head, where there was no ditch or embankment. The ditches measured about 6 ft (1.8 m) across. The embankment was about a foot higher than the

interior of the fort. An ovate refuse midden composed mainly of shell refuse was present at the southeastern side of the fort. In the midden were found aboriginal artifacts, including Shantok ware (Smith 1950; Solecki n.d.) as well as datable colonial trade items. Some were datable to between c. 1635 to 1660.

We can perhaps fix the date by examining the colonial documents (Brodhead 1859: I: 387). The principal sachem of the Massapequa Indians was Tackapausha, who was intermediary and signatory for his tribe, first with the Dutch and later with their successors, the English. We are very fortunate that the site never saw the plow in its entire history. It appears that the Dutch (within whose sphere of influence Massapequa fell) had directions to construct a fort for trade and safeguard in the Oyster Bay area in 1656.

We cannot be positive that Fort Massapeag was built by the Dutch or under their supervision, but a number of indications point to their involvement. We have knowledge of at least six palisade post ends (Johannemann 1983; Smith 1954; Solecki n.d.), that were recovered from the area of the west wall. Four of these were lost. Examination of the two remaining showed that they had been pointed with a sharp chopping tool like an axe. The posts were from 6-10 in (8.5-25.4 cm) in diameter, and appear to have been made of red cedar. Of incidental note, there was no indication of a linear trench dug into the ground for the placement of the posts. From this we infer that the posts had been driven into the sandy soil.

Burggraf (1938) was very much impressed by the quantity of the wampum manufacturing debris he recovered at Fort Massapeag. He made a study of the technique of wampum making at Massapeag from raw material to fin-

ished product. In the same refuse midden, a number of handwrought iron nails whose pointed ends were clinched at right angles were recovered. This would indicate that some sawn boards were used in the fort construction. A couple of shovel tests within the fort perimeter revealed no occupational traces. Indeed, the interior area, 10,000 ft² (900 m²), was too small to house the Massapequa population. Their occupational remains covered several acres outside the fort (Solecki, n.d.).

Fort Corchaug

Located near Cutchogue, on a neck of land known since the 17th century as "Fort Neck," Fort Corchaug is the best preserved fort site known on Long Island (Smith 1950; Solecki 1950, 1985; Tooker 1911; Williams 1972). The site is situated on the west bank of Downs Creek, a shallow tidal creek emptying into the Peconic Bay in the south. The fort was known and visited by both the Dutch and English before the middle of the 17th century. Although the Dutch made strong overtures to the Corchaug Indians in this area they called "Crommegow," they lost out to the English. The latter, based in closer Connecticut, brought their influence to bear as seen in the quantity of English trade goods at Corchaug. Both English and Dutch were particularly interested in wampum, a lucrative good that was easily convertible into furs in the Iroquois country. Wampum manufacturing featured rather heavily in the economy of Fort Corchaug.

The fort was built about 1640 and appears to have gone by 1662 (Solecki 1950). It was a palisaded structure, roughly oblong in shape, with two extensions, presumably bastions, one on the northwest end and one on the northeast end. The embankments enclosed an

area of about three quarters of an acre. The enclosure measured about 210 ft (63 m) north-south and 160 ft (48 m) east-west. The embankments on the four sides measured a maximum of about 15 ft (4.5 m) wide and about 1.5 ft (0.45 m) high. There was a single row of palisade posts along the north, west, and much of the south walls, plus double and even multiple palisades on the east wall facing the creek. At the southeast corner there were multiple palisade walls, like a set of baffles. The site is about 10 ft (3 m) above the creek level.

J. Wickham Case (1882: 120-121) noted an entry in the town records dated February 16, 1662, stating that the fort that had stood by the creek had been erected about the time of the settlement of Southold town (c. 1640) for refuge and as a secure place for the Indian women and children in case of invasion and assault by neighboring tribes. They were often at war with groups from the mainland, particularly the Narragansetts, who took the place of the Pequots as aggressors.

Excavations in the palisade area at various points revealed that the palisade posts had been set into linear trenches dug about 2.5 ft (0.75 m) deep. Earth was heaped both inside and outside of the palisade. No occupational traces were noted inside the fort area. Several small wigwam sites were found to the south of the south palisade wall (Solecki 1950), however. The major village of the Corchaug Indians was on the next neck of land to the east. The name of the Corchaug sachem who figured in the early Southold town records was Momoweta. He was succeeded by Paucamp, who signed away the last parcels of Corchaug land to the English. By then (at least by 1662), the fort had probably been abandoned and the palisade posts had been stripped from the fort as valuable

wood. There is no record that the fort had ever been attacked.

Fort Shinnecock

A sister fort of Fort Corchaug was situated across Peconic Bay in the Shinnecock Hills in the township of Southampton. Tooker (1892) says that fort was probably located at a place called "Sepunak," but the exact site was unknown. The site of the fort was located in 1989 by Robert Miller during an archaeological survey of the Bayberry Hills site, Shinnecock Hills, in the township of Southampton (Miller 1990). The maximum elevation of the elongated hill on which the fort was located is about 95 ft (28.5 m) asl. Downslope to the south from the knob of the hill were found five embankments at about the 70 ft (21 m) elevation. These traces measured between 300 (90 m) and 400 ft (120 m) long in the area investigated. They were roughly parallel, extending east and west following the hill contours.

There were indications that a quadruple embankment enclosed the innermost part of the Bayberry site. Miller (1990: 41) believes that this site was occupied during the middle of the 17th century, or between c. 1630–1660. The Shinnecock Indians under their sachem, Nowedonah, undoubtedly built the fort for protection against their enemies, the Narragansett Indians of Rhode Island (Bayles 1874: 400). He (1990: 45) also suggests that the structure had entrances at the eastern and western ends. Miller does not report the finding of any substantial postmolds in the embankments, nor a trench in which palisade posts could have been placed. There were a number of postmolds, only a few centimeters in diameter, found in a line paralleling one of the embankments. To explain the absence of size-

able palisade postmolds or trenches, we would have to resort to some speculation. Since this area was virtually treeless in Indian times and wood was precious, it is possible that either the palisade posts, which may not have been set in a trench, were removed after the fort fell into disuse, or another method of fortification was used. We may hypothesize that a linear cage of boughs was woven closely together, filled with earth, and topped with some kind of impeding structure.

The traces of the associated Shinnecock village covered about 30 acres (Miller 1990: 48). With the exception of one gunflint spall, all of the artifacts recovered in the test excavations were aboriginal in origin. They appear to be primarily rough stone tools including anvil stones, adzes, hammerstones, hoes, sinew stones, and burned stones. No mention is made of projectile points, chipping debitage, or wampum manufacturing debris. The only European item was the gunflint spall. It should be mentioned that test digging was difficult, for there was a 3–4 ft (0.9–1.2 m) accumulation of soil over the original 1640 ground surface (Miller 1990: fig. 1).

Fort Montauk

Since it is impossible to trace the outlines of Fort Montauk today, our best description is the one by Tooker (1893). He visited the site in 1885, and appears to have taken measurements. He found the earthen outlines to be a perfect square, 180 ft (54 m) on each side. The earth embankment was about 6 ft (1.8 m) wide and 1.5 ft (0.45 m) high. There were no signs of any bastions or other features on the corners. The entrance was close to the southeast corner. The area enclosed was about three quarters of an acre. The elevation of Fort Hill, as it is called, is about 90 ft (27 m). It is

located just to the northeast of Fort Pond. There is a precipitous bluff down to the pond from the site on its western edge and a more gradual slope on the eastern side. There is a panoramic view from the hilltop to the north, west, and south. This fort was called the "new fort," and it was still standing in 1661 (Johannemann 1983: 7-8, 74).

Tooker (1893) said that he saw 40 Indian graves inside the fort, each marked by cobbles. Outside the perimeter he counted 10 more, and down the slope to the northwest were 86 more graves, a total of 136 burials. All were marked in some manner. On many of the hill sides and neighboring valleys Tooker reports that there were shallow depressions and heaps of stones marking old Indian cabin sites.

Edward Johannemann (1983) prepared an initial cultural resource survey of Fort Hill and vicinity in Montauk for the town of East Hampton. While unable to confirm completely Tooker's observations because of modern construction, notably a World War I installation and a later hotel, Johannemann had some success. Destroyed by the construction was much of the fort, village area, and the burial ground. Johannemann (1983: 76, figs. 27, 28) was fortunate in recovering what appears to be evidence of one of the palisade walls. It consisted of a trench about 2.5 ft (76 cm) deep with a mid-section width of about 10 in (25 cm). The trench stain was fairly consistent in depth. There was an elevation of the ground surface above the trench, and a hearth pit to the east lying in a hollow area. An aboriginal potsherd was found in the pit.

Johannemann's (1983: 87-92) findings included aboriginal as well as European trade goods. Among the former are quartzite flakes, projectile points

including a Levanna point, and ceramics, including Shantok-type rim and body sherds. Among the European items were copper projectile points, heavily rusted objects of iron and steel, and broken white clay trade pipes. The excavators also recovered subsistence remains, including fish and shellfish.

Johanneman (1983: 91) remarks that it was curious that not one wampum bead or any evidence of wampum manufacture was found anywhere in the excavations on Fort Hill, although the sachem of the Montauks, Wyandanch, was known to have paid a huge ransom in wampum for his daughter who was kidnapped by the Narragansetts, mortal enemies. It is quite possible that the fort was used principally as a refuge during attacks as Tooker (1893) suggests. The wampum makers would understandably have preferred to do their work in close proximity to the source of their raw material on lower lying land.

We have no definite dates, but the fort was probably built about the middle of the 17th century, and as we have noted, was reported to be still standing in 1661. Johannemann (1983: 76) makes an interesting observation regarding the fate of the palisade walls. He says that since wood was a scarce commodity during and following the 17th century, the walls were probably dismantled when the fort was abandoned. The same fate probably happened to the other forts on Long Island, notably Forts Corchaug, Shinnecock, and Massapeag.

Shelter Island

Tooker (1888) says that there was supposed to be an Indian fort on Shelter Island on Sachem's neck opposite Sag Harbor. The site was not known in Tooker's time, and has never been located to our knowledge.

Fresh Pond Fort

An old Montauk fort was reportedly situated on the eastern extremity of Montauk Point near Fresh Pond; the pond is near the Hither (Nominick) Hills. The fort had supposedly fallen into decay by the time the English arrived in 1640. Smith and Solecki visited the area on a survey in 1947, but no trace of the fort could be seen (Solecki 1950: 13).

The Connecticut Indian Forts

We have some documentary and archaeological knowledge of three Indian forts in Connecticut, one of was built by the Mohegans (Fort Shantok), two by the Pequots (Mystic Fort and Fort Hill). Of the three forts, Fort Shantok is best known archaeologically. It is Mystic Fort whose fame is legendary, however. Eyewitness reports of the massacre that took place at the site were indelibly fixed in history over 350 years ago. The forts are described below.

Fort Shantok

This palisaded Mohegan Indian fort site is located on the west bank of the Thames River on a triangular promontory formed the junction of this river with the Shantok Brook from the west. The site is about 3 mi (4.8 km) south of Norwich, Connecticut, and rests about 50 ft (15 m) above the river level. There were two major Indian occupations; the first was between c. 1635 to 1680, and the second was a reoccupation of the site between c. 1710 and 1750. We are concerned with the earlier occupation. The site was listed in the National Register of Historic Places on March 20, 1986. It is now protected in a state park and occupies

about an acre, or 200 x 200 ft (60 x 60 m). In the park is the fortified village as well as the Mohegan Indian cemetery (Grumet 1990: 141; Salwen 1966; Williams 1972: fig. 2). The site, naturally defensible, is easily reached by boat.

Uncas, sachem of the Mohegans, made Shantok his home during the 17th century. His name figured heavily in the early history of Connecticut. He died in 1683.

The site was excavated by Bert Salwen with the help of students during the summers of 1962 through 1968 and 1970. He set up the chronological sequence for the site. Three linear patterns of palisades were found, which are believed to represent three distinct episodes of fort construction. Palisade No. 1, which defended the western side toward Shantok Brook and the southern neck approach, was set in a linear trench. According to Williams (1972: 77), this was presumably evidence of an early period before the Mohegan obtained metal tools. Palisades Nos. 2 and 3 appear to be additions to or reinforcements of the original structure. These palisades were identified as consisting of individually set pointed posts. This is reminiscent of the Fort Massapeag construction, which appears to have had axe-pointed posts that were driven into the earth, but there is no mention of embankments at Fort Shantok.

There was abundant evidence that there was a village within the precincts of the fort, including hearths, pits, and building structures. Aboriginal and colonial trade artifacts were recovered in numbers. Williams (1972: 158) believes that the fort existed before 1635-1640. She suggests that the Shantok fort of this period was used only as a place of refuge during periods of threat of attack. During the later

Early Historical Period (1635-1660), Williams (1972: 181) believes that Fort Shantok was a fortified settlement or village, not a seasonally occupied site or a place for intermittent refuge. It was during the Middle Historical Period (c. 1660-1680) that Palisade No. 3 was built, going around the stone foundation of a building that must predate the construction of the palisade. The manner of the construction of the stone building indicated to Williams that it was built by Europeans rather than by Indians. Palisade No. 3 was probably built about 1670-1675 in connection with King Philip's War, enclosing a much smaller area than the original fortification. There was a heavy concentration of occupational debris around the stone foundation at the southeast corner of the fort.

There was a very large amount of wampum manufacturing debris recovered at Fort Shantok datable to the Early Historical Period (Williams 1972: 180). Wampum manufacture appears to have declined markedly in the Middle Historic Period. Fort Shantok is the type site for the historic Shantok aboriginal ceramics (Rouse 1947; Smith 1950).

Mystic Fort

The Mystic Pequot Fort is one of the best known Indian forts in New England history (McBride 1990; Orr 1897; Salwen 1978; Washburn 1978). It was raised to prominence by the disastrous massacre of the Indians by the English and their allies on May 26, 1637. We have several eyewitness accounts and even a drawing of the battle scene (Underhill 1638). The Indian allies of the English were the Mohegan, Narragansett, and Niantics. The Pequots, under their sachem, Mamoho, were reported in the colonial literature to

have had their palisaded village atop a great hill a quarter of a mile west of the Mystic River. There was a small brook on the west side, about a quarter of a mile down the hill. Mystic Fort is estimated to have contained as many as 70 wigwams, which would have represented a fairly large population. Indeed, Captain Underhill, one of the English leaders, says that 400 "souls" perished in half an hour (Ceci 1990: 60; Underhill 1638). The fort compound, in a circular palisaded structure, encompassed about two acres. The description of the fort construction is given by Philip Vincent, one of the participants in the battle (Vincent 1638).

The site of what is believed to be the Mystic Fort was located in 1987 by Kevin McBride of the University of Connecticut. The area, a hilltop, is presently referred to as Pequot Hill, and has recently been developed for housing. Farmers in previous days had picked up aboriginal Indian and colonial artifacts from neighboring plowed fields. A local resident reported that his father had told him about a circular embankment that had extended for several rods in diameter across a field on the summit of Pequot Hill (McBride 1990: 98). Plowing turned up charred wood, corroded bullets, and Indian relics in this area.

Among the artifacts recovered, McBride (1990) says that the most important find was pottery similar to the Niantic-Hackney Pond type in the Windsor tradition. This is a special kind of ceramic found only on late 16th- and early 17th-century sites in eastern Connecticut. They are distinguishable from the Fort Shantok types of wares found associated with Mohegan sites along the Thames River. No mention was made of wampum manufacturing debris on Pequot Hill. Like Forts Shinneck and Montauk, which were also

placed on high hills some distance from estuaries, we believe that wampum manufacturing took place close to the raw material source.

McBride suggests that the existence of fortified villages, at least in eastern Connecticut, is related to European contact. The fortified villages were larger than standard Pequot villages, which were "almost without exception" situated along estuaries (McBride 1990: 101). In 1636, John Endicott razed two Pequot villages (unfortified) on the Thames River. This action sparked the Pequot War of 1637.

Fort Hill

A lesser known Pequot fort, a contemporary of Mystic Fort on Pequot Hill, was located on Fort Hill at Weinsauks, near Groton. It was on the east side of the mouth of the Thames River (see FIG. 1). The paramount sachem of this fort was Sassacus (McBride 1990: 101-103). It has a terminus date of 1637, following the defeat and dispersion of the Pequots by the English. Some Pequots were assigned to the English as spoils of war. About 200 to 300 Pequot warriors, and presumably their families as well, melded into the Mohegan tribe during the period following the Pequot War (McBride 1990: 105).

Rhode Island Indian Forts

Fort Ninigret, now a part of Fort Ninigret State Park, in Charlestown, Rhode Island, was the focus of investigations under the direction of Bert Salwen (Grumet 1990: 369; Salwen and Mayer 1978). The site was listed on the National Register of Historic Places on April 28, 1970. Salwen and Mayer (1978) thought that Fort Ninigret was established primarily as a trading cen-

ter. Its location on a protected waterway made it readily accessible to shipborne traders. It is thought that the fort was used during the spring and summer months, mainly by Niantic men. During these periods, the occupants lived within the fort enclosure.

The fort, which had been palisaded, now comprises a roughly squared earthworks, each side not quite 160 ft (48 m), with a total area of about 25,500 sq ft (229.5 m²) or a bit larger than half an acre. There were bastions on three of the corners. There is a continuous low embankment around the perimeter composed of stone rubble and earth. The embankment evidently was thrown up to support the palisade walls. According to the description of the works, the posts were apparently driven into the ground. From this it is inferred that the ends of the posts had been pointed, most likely with a European iron axe. All of the features of the structure suggest that this fort had been engineered after European design with the help of European tools.

The site takes its name from the historic Niantic chief, Ninigret, whose name was a household word in early historical Connecticut. Fort Ninigret is dated between 1620 and 1680. Within the precincts of the enclosure evidence of occupation was recovered. These include aboriginal lithic tools and debitage waste, European trade goods, and food refuse. Ninigret is notable as a wampum manufactory. Following Ceci's (1980) reasoning, Fort Ninigret may have been essentially set up as a trading post where wampum was made for the trade.

Great Swamp Fort

It was only a matter of time before the Narragansetts, the successors to the

Pequots, had their power broken by Europeans in a rather similar massacre in 1675 (Brasser 1978; Washburn 1978). Their large palisaded village in the Great Swamp near West Kingston, like the Mystic Fort, became a virtual death trap for the occupants. About 300 warriors and more than 300 women and children were killed. The site of the battle has never been precisely located (Grumet 1990: 137-138). The fort was also known as King Philip's Fort. It was located in a swamp on a piece of firm ground about three or four acres in area. The fort was palisaded, but was never quite finished. Inside the perimeter was reported to be a clay wall. The earthworks were built under the direction of "Stonewall John," an Indian engineer. He may have been aided by a renegade white man. The Great Swamp Fort was described by Lion Gardiner (Johanneman 1983: 8-9; Penhallow 1859: appendix 181-183). Ellis and Morris (1906: 150-151) say that the fort had flankers and block-houses in addition to the stockade. The attackers were able to cross the swamp because it was frozen at the time.

Other Forts in the Coastal Area

Undoubtedly there were other forts within the area of our survey, but we have no firm knowledge of them. Mentioned in the literature was an Indian "fort" that had been attacked by the Dutch in 1644 on Strickland's Plains at Poundridge, Westchester County, New York (Brodhead 1859:I: 390-391). Some 500 Indians were said to have been slaughtered there, while the Dutch suffered only 15 wounded. No archaeological reports that we know of have confirmed this event.

McBride (personal communication, 1991) investigated the Fort Island site

on Block Island, Rhode Island. It was described as a native fort in 1661 and an English fortification in 1705. Grumet (1990: 138), citing McBride's 1989 report, says that there was no evidence of village palisades or of wampum production, although both had been noted in the records.

Conclusion

In this survey of nine contact period Indian fort sites in southern New England and coastal New York, we have some definitive information with which to test Ceci's (1980) hypothesis. She (Ceci 1980: 78, 82) suggests that the Indians who wished to encourage European traders seeking wampum located their sites close to deeper waters so that their ships could dock. Ceci (1980: 84) took the position that the Indian "forts" (her quotations), which were in use between 1635-1665, appear to be a new type of site in the local area. She was of the opinion that they had been specifically promoted by European investors, whose major incentive was the production of wampum for the trade (Ceci 1982, 1990).

Only one site on Long Island, Fort Massapeag, which may have been built under the supervision of the Dutch in 1656, meets Ceci's criteria for a trading station. Because of its small size, it could not have served as a refuge from possible attack for a large Indian population. It was a wampum manufactory. Fort Corchaug, although it is accessible to a major waterway, appears to have functioned as a refuge as well as a wampum manufactory. Its construction was evidently done without the aid of metal tools. Forts Montauk and Shinnecock, located on commanding hilltops, well away from navigable water, were recognized refuges from

possible attack. No wampum or wampum manufacturing debris was found on either site, although the excavation tests were limited in scope.

In Connecticut, the only known site meeting Ceci's criteria is Fort Shantok. It was only in the later period of the fort's occupation that we have wampum in considerable quantity, however. The other two forts, Mystic Fort and Fort Hill, were on commanding elevated hilltops, well away from navigable water. No wampum manufacturing debris is recorded from these sites. It should be also noted that both Mystic Fort and Fort Hill were built in the early circular style, without bastions.

In Rhode Island, we have one clear candidate for a wampum trading station, Fort Ninigret. Wampum manufacturing debris was recovered in quantity from the site. We know much less about King Philip's Fort site. We have no evidence from it regarding wampum production. But the site was not on navigable water, and it was evidently purely a large defensive structure, apparently built with knowledgeable supervision and European methods. Current archaeological investigations on the Block Island site may resolve the questions about the native fort that reportedly existed there in the 17th century.

The building of forts by local coastal Indians appears to have been well under way before the Europeans arrived. The conclusion from this is that they were built as defensive measures against hostile neighbors. We know that the manufacture of wampum was not necessarily tied in with defenses. Some large fortified structures which apparently housed large Indian populations were not trading posts.

This leaves us with the conclusion that out of the nine forts considered here, we have three structures (Forts

Massapeag, Shantok, and Ninigret) that may be considered as bona fide Indian trading stations. One of these, Fort Shantok, had apparently been constructed in pre-contact times, and was only later readapted for use as a trading station. Hence while Ceci's argument for the use of Indian forts as trading stations appears to be a reasonable claim, it cannot be applied as a blanket statement.

References

- Barck, Dorothy C., ed.
 1926— Papers of the Lloyd Family of the
 1927 Manor of Queens Village, Lloyd's Neck, Long Island, New York, 1654-1826. *Collections of the New-York Historical Society* 59-60.
- Beauchamp, W. M.
 1891 Earthworks and Stockades. *The American Antiquarian and Oriental Journal* 13(1): 42-51.
 1905 Aboriginal Use of Wood in New York. *New York State Museum Bulletin* 41: 75-146.
- Bayles, Richard N.
 1874 *Historical and Descriptive Sketches of Suffolk County*. Port Jefferson, NY.
- Brasser, Theodore J. C.
 1978 Early Indian-European Contacts. In *Northeast*, ed. by Bruce G. Trigger, 77-88. Vol. 15 of *Hand-book of North American Indians*, ed. by William G. Sturtevant. Smithsonian Institution Press, Washington, D.C.
- Brodhead, John Romeyn
 1859 *History of the State of New York, 1609-1664*. Harpers, New York.
- Burggraf, James D.
 1938 Some Notes on the Manufacture of Wampum Prior to 1654. *American Antiquity* 15: 53-58.
- Bushnell, David L.
 1919 Native Villages and Village Sites East of the Mississippi River. *Bureau of American Ethnology Bulletin* 69. Washington, D.C.

- Case, J. Wickman
1882 *Southold Town Records. The Towns of Southold and Riverhead, N.Y., Vols. 1, 2, Libers A-C.*
- Ceci, Lynn
1980 *The First Fiscal Crises in New York. Economic Development and Cultural Change* 28(4): 839-847.
1982 *The Value of Wampum Among the New York Iroquois: A Case Study in Artifact Analysis. Journal of Anthropological Research* 38(1): 97-107.
1990 *Native Wampum as a Peripheral Resource in the Seventeenth-Century World-System. In The Pequots in Southern New England*, ed. by Laurence M. Hauptman and James D. Wherry, 48-63. University of Oklahoma Press, Norman.
- Clinton, De Witt
1821 *A Discourse Delivered Before the New-York Historical Society December 6, 1811. Collections of the New-York Historical Society for the Year 1821* 3: 321-367.
- Denton, Daniel
1670 *A Brief Description of New York; Formerly Called New Netherlands.* Ed. by G. Furman, 1845. New York.
- Ellis, George W., and John E. Morris
1906 *King Philip's War.* New York.
- Ford, James, and Gordon Willey
1941 *An Interpretation of the Prehistory of the Eastern United States. American Anthropologist* 43: 325-363.
- Grumet, Robert
1990 *Historic Contact. Indians and Colonists in Northeastern North America, 1497-1783.* National Historic Landmark Theme Study, National Park Service, distribution draft 1, Philadelphia.
- Hadlock, Wendell S.
1947 *War Among the Northeastern Woodland Indians. American Anthropologist* 49(2): 204-221. Menasha, Wisconsin.
- Hodge, Frederick Webb, ed.
1910 *Handbook of American Indians North of Mexico.* Bulletin No. 30, Pt. 1. Bureau of American Ethnology, Washington, D.C.
- Johannemann, Edward
1983 *Stage 1 Cultural Resource Survey of Fort Hill and Vicinity, Montauk, Suffolk County.* Long Island Archaeological Project, Department of Anthropology, State University of New York, Stony Brook.
- McBride, Kevin A.
1990 *The Historical Archaeology of the Mashantucket Pequots, 1637-1900: A Preliminary Analysis. In The Pequots in Southern New England*, ed. by Laurence M. Hauptman and James D. Wherry, 96-116. University of Oklahoma Press, Norman.
- Miller, Robert L.
1990 *Stage II Archaeological Investigation of the Bayberry Hills Site Shinnecock Hills, Town of Southampton.* Clover Archaeological Services, Inc., Northport.
- Orr, Charles
1897 *History of the Pequot War. The Contemporary Accounts of Mason, Underhill, Vincent and Gardner.* Reprinted from the *Collections of the Massachusetts Historical Society.* The Helman-Taylor Co., Cleveland.
- Parker, Arthur C.
1922 *The Archeological History of New York, 2 parts. New York State Museum Bulletin, Nos. 235-236, 237-238.* The University of the State of New York, Albany.
- Penhallow, Samuel, Esq.
1859 *The History of the Wars of New-England with the Eastern Indians (1726).* J. Harpel, Cincinnati.
- Ritchie, William A., and Robert E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast.* Memoir No. 20. New York State Museum and Science Service, Albany.
- Rouse, Irving Benjamin
1947 *Ceramic Traditions and Sequences in Connecticut. Bulletin of the Archaeological Society of Connecticut* 21: 10-25.
- Salwen, Bert
1966 *European Trade Goods and the Chronology of the Fort Shantok Site. Bulletin of the Archaeological Society of Connecticut* 34: 5-39.

- 1978 Indians of Southern New England and Long Island: Early Period. In *Northeast*, ed. by Bruce G. Trigger, 160-176. Vol. 15 of *Handbook of North American Indians*, ed. by William G. Sturtevant. Smithsonian Institution Press, Washington, D.C.
- Salwen, Bert, and Susan N. Mayer
1978 Indian Archaeology in Rhode Island. *Archaeology* 31: 57-58.
- Smith, Carlyle Shreeve
1950 The Archaeology of Coastal New York. *Anthropological Papers of the American Museum of Natural History* 43(2). New York.
1954 A Note on Fort Massapeag. *American Antiquity* 20: 67-68.
- Solecki, Ralph S.
1950 The Archeological Position of Fort Corchaug, L.I. and Its Relations to Contemporary Forts. *Bulletin of the Archaeological Society of Connecticut*. 24: 3-40.
1985 Recent Field Inspections of Two 17th-Century Indian Forts on Long Island, Forts Massapeag and Corchaug. *Bulletin and Journal of the New York State Archaeological Association* 91: 26-31.
n.d. The Archaeology of Fort Neck, Massapequa, Long Island, New York and Vicinity.
- Squier, F. G.
1850 Aboriginal Monuments of the State of New York. *Smithsonian Contributions to Knowledge, 1849*, Vol 2. Washington, D.C.
- Thomas, Cyrus
1894 Report on the Mound Explorations of the Bureau of Ethnology. *12th Annual Report of the Bureau of American Ethnology for the Years 1890-1891*. Washington, D.C.
- Tooker, William Wallace
1888 The Indian Fort at Montauk. *The Sag Harbor Express* 29(37), Pt. 1. Sag Harbor, New York.
1892 Lecture November 21, 1892 at the Brooklyn Institute (see Miller, Robert 1990: 49).
1893 Indian Relics. *Long Island Magazine*, April. Brooklyn, New York.
1911 *Indian Place-Names on Long Island, New York*. New York.
- Underhill, John
1638 *News from America or a New and Experimental Discoverie of New England*. Reproduced in 1902 by the Underhill Society of America, Brooklyn, New York.
- Van der Donck, Adriaen
1656 A Description of New Netherland. *Collections of the New-York Historical Society*, Vol. 1 (1841).
- Vincent, Philip
1638 A True Relation of the Late Battell Fought in New England. In *History of the Pequot War. The Contemporary Accounts of Mason, Underhill, Vincent and Gardener*, ed. by Charles Orr, 1897. The Helman-Taylor Co., Cleveland.
- Visscher, Nicholas
1651 Map entitled, Novi Belgii etc. tabula multis in locis emendoat a Nicolao Joannis Visschero. In *The Iconography of Manhattan Island, 1498-1909*, by I. N. Phelps Stokes. Vol. 1, Pl. 7(b). New York, 1915.
- Washburn, Wilcomb E.
1978 Seventeenth-Century Indian Wars. In *Northeast*, ed. by Bruce G. Trigger, 89-100. Vol. 15 of *Handbook of North American Indians*, ed. by William G. Sturtevant. Smithsonian Institution Press, Washington, D.C.
- Willoughby, Charles C.
1906 Houses and Gardens of the New England Indians. *American Anthropologist* 8(1): 115-132.
- Williams, Lorraine
1972 *Fort Shantok and Fort Corchaug: A Comparative Study of Seventeenth Century Culture Contact in the Long Island Sound Area*. Ph.D. diss., New York University. University Microfilms, Ann Arbor.
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