

# The Bulletin

Number 73      July 1978

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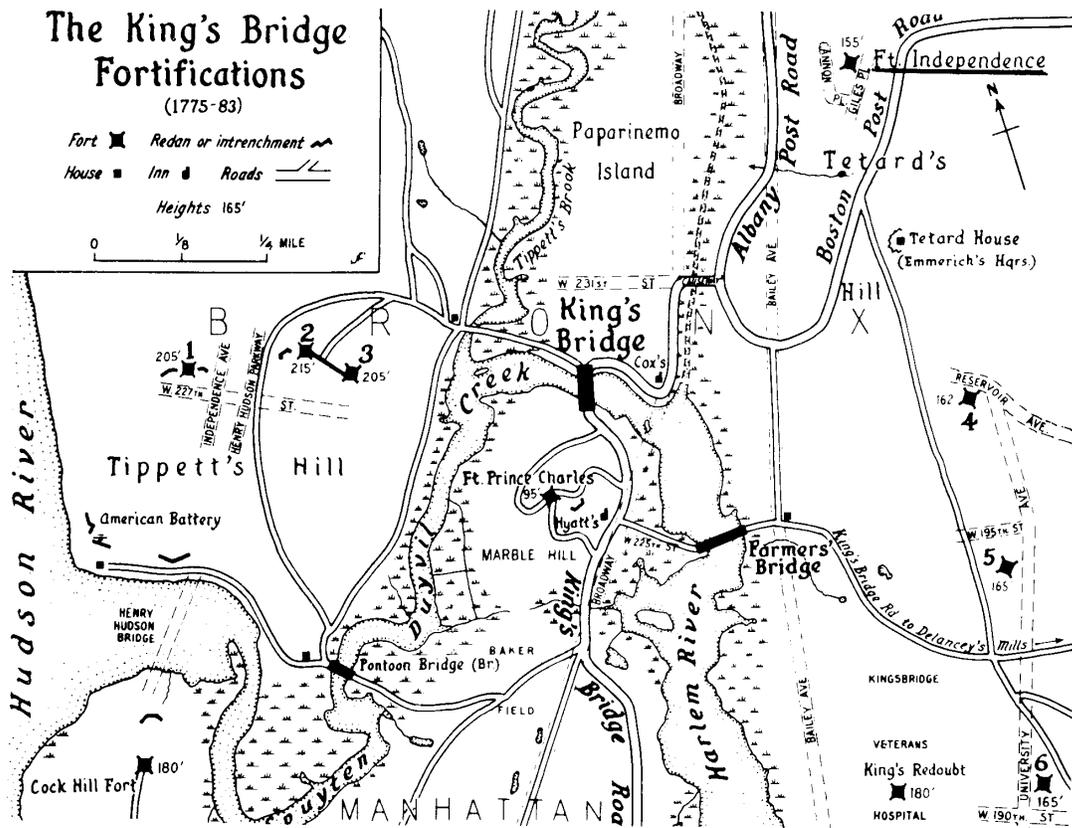


# THE BULLETIN

NUMBER 73

JULY 1978

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Fortifications in the Kingsbridge area.  
 Drawn by John Forsyth-Kingsbridge Historical Society.

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**THE HISTORY AND ARCHEOLOGY OF FORT INDEPENDENCE  
ON TETARD'S HILL, BRONX COUNTY, N.Y.**

Julius Lopez, NYSAAF

Metropolitan Chapter

*"Unfortunately for historical preservation, the sites of ... forts upon the commanding eminences attracted the owners of the property in deciding on sites for their residences, and with few exceptions large houses were built on the forts, with ruinous regarding and destruction of their interesting form and character.*

*In Independence the Giles family built a large house and but little trace of the ramparts of the fortification are left.'*

Reginald Pelham Bolton, 1916, p. 202

Editor's Note

This is the second report from the inventory of unfinished manuscripts by the late Julius Lopez. Like the first (Lopez 1971) it is based on the notes and research papers compiled by Lopez. The major portion of the text and illustrations were complete in draft form. I have striven to follow the guidelines he outlined in his notes for the completion of the article.

I wish to thank the many individuals whose efforts and cooperation made this publication possible. These would include the members of the participating crew, then known as "The New York City Archeological Group", headed by Julius Lopez; especially Harry Trowbridge for making the initial survey and testing pinpointing the area for excavation. I would also like to express my appreciation to Larry Lane for his research and correspondence on the excavated material and to John Forsyth for his fine map of the Kingsbridge Fortifications.

Special thanks to the following organizations and their staff in responding to many queries about the Fort site artifacts and other related information: Fort Ticonderoga Museum-Fort Ticonderoga, N.Y.; Colonial Williamsburg-Williamsburg, Virginia; The United States Dept. of the Interior, National Park Service, Washington, D.C.

The largest share of my gratitude must go to Eleanor Lopez, the key influence in the entire endeavor, not only in making the text and notes available, but in the painstaking translation from initial rough draft to the typing of the final manuscript.

Stanley Wisniewski, Metropolitan Chapter

### Preface

For close to a century a white clapboard mansion with a square tower built by William O. Giles, Esquire, stood on top of Tetard's Hill in the western part of Bronx County in the area known as Kingsbridge, named after a colonial bridge which connected the mainland with the northern tip of Manhattan Island. Once the stately mansion dominated the promontory overlooking the valleys below and the junction of the Old Boston and Albany Post roads. But, with the passage of time, streets were laid around the base of the hill. Then, from all directions, the growth of the city marched up the hill until the old structure stood alone, a sorry-looking obsolescence closely hemmed in and dwarfed on all sides by modern private dwellings and taller apartment buildings.

Finally, the land changed hands. The mansion was torn down and the wreckage left scattered over the plot. Notwithstanding the disorder an archeological inquiry was decided upon because the Giles House, on Giles Place, west of Sedgwick Avenue, had been erected within the ramparts of Fort Independence, the largest fortification of the American Revolution in the Borough of the Bronx in Greater New York City. At best, the inquiry could only be in the nature of a salvage operation because the site had been badly disturbed when the mansion was built. Furthermore, the surrounding buildings and streets had nipped off other portions of the site. Nevertheless, considerable information was recovered about the fort and its occupants.

The excavation was conducted during the spring and summer of 1958 as an activity of a number of amateur archeologists who called themselves "The New York City Archeological Group" which was headed by the author. Participating members were Harry Trowbridge, Julius Diosi, Stanley Wisniewski, Susan and Michael Cohn, George Younkheere, George Gulack, Jerome Jacobsen and Lawrence Lane. Credit for the initiation of this activity, and for the reconnaissance and a most painstaking phase of the operation, is given to Trowbridge who sank several test shafts on the site. During the course of this work some structures of stone were detected 3.5 ft. underground, below a slope of clayey soil capped with sod. This slope was actually an accumulation of discarded earth which had been emptied from the mansion's large cellar excavation and graded over the grounds. With the help of additional test holes and probings with steel rods to ascertain the dimensions and corners of the structures, it was determined that they were the ruins of two buildings. Subsequently, a small bulldozer was hired to remove the overburden and mansion debris, most of which was shoved into the cellar of the Giles mansion. This was the first time that a power machine had ever been used in coastal New York for archeological purposes.

After the bulldozing, the two structures were exposed and the artifacts removed. Later, trenches were dug criss-crossing the site. This led to the discovery of additional features and to the recovery of more Revolutionary War items.

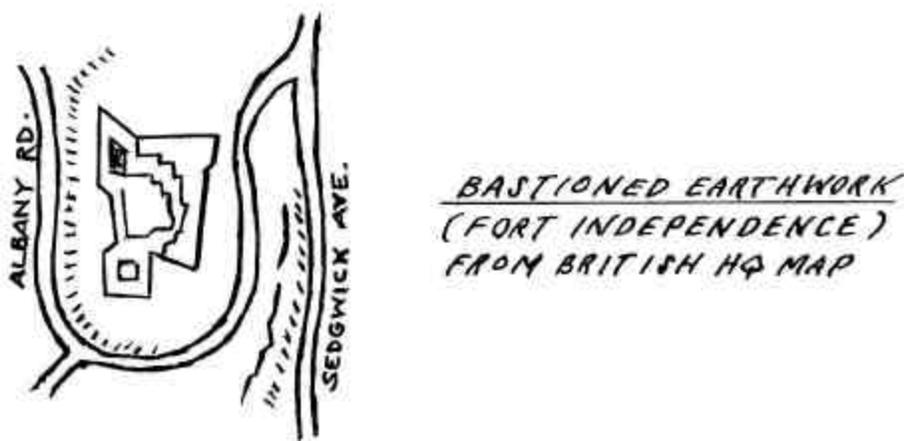


Figure 2

No work had ever been done previously on the site as far as we know. However, reminders of the Fort and its buried past reasserted themselves over the years in one form or another. It has been said (Jenkins, 1912, p. 127) that when the cellar was dug for the Giles House, 11 cannon and several cannonballs were found. Two of the cannons were moved to the nearby Van Cortlandt Park and mounted on both sides of the entrance to the Frederick Van Cortlandt mansion built in 1748 (these were eventually given to a scrap metal drive during World War II.)

Cannonballs and other objects have also been unearthed in the gardens of neighboring houses. Insistent that it should not be forgotten, the fort also made its presence known at the foot of Cannon Place. Some lads, playing war games, dug trenches in the street embankment. In doing so, they discovered a cache of cannonballs, a bundle of muskets and other military items; the wooden stocks of the muskets had rotted away but the barrels still remained intact. Bolton, one of our pioneering archeologists rushed to the scene and reported the discovery in his *Relics of the Revolution* (1916).

### History

On May 25, 1775, after the news of Concord and Lexington, the Continental Congress in Philadelphia resolved:

*"First, that a Post be immediately taken and fortified at or near King's Bridge in the Colony of New York, and that the ground be chosen with a particular view to prevent communication between the City of New York and the country from being interrupted by land; Secondly, that the militia of New York be armed and trained, and in constant readiness to act at a moment's warning; and that a number of men be immediately embodied . . . to prevent any attempts that may be made to gain possession of the City, and to interrupt its intercourse with the country."*

Four days later the resolutions reached the Provincial Congress at New York by courier, with instructions to keep them as secret as possible. A committee was then appointed, headed by Captain (later Major General) Richard Montgomery, one of the heroes of the Revolution, the same who captured Montreal and later fell in the unsuccessful attack on Quebec on December 31, 1775. The committee's purpose was "to view the ground at or near King's Bridge, and report this to Congress whether the ground near King's Bridge will admit of making a fortification there that will be tenable." (Jenkins, pp. 118-119, 1912).

In June, 1775, the Continental Congress initiated plans for an army and George Washington was made Commander-in-Chief. Three thousand troops were to be raised from New York to be divided into four regiments, later to be known as the New York Line. To serve both army and country, every man between the ages of 15 and 50 was required to equip himself with a musket and a bayonet, a sword or tomahawk, a cartridge box and belts, 23 rounds of ammunition, 12 flints, a knapsack, a pound of gunpowder and a reserve supply of 3 pounds of bullets. The money for this paraphernalia had to come out of his own purse. Otherwise he was subject to a fine and imprisonment. In many cases, if not in most, this was a hardship for the poorer farmers and artisans who found it difficult enough as it was to provide food and clothing for his family.

On June 3, 1775, the Committee rendered its report suggesting that a post of 300 men be stationed on Marble Hill, near Hyatt's Tavern, Manhattan, and that redoubts be placed on Tippet's Hill, on Tetard's Hill located on a farm of 75 acres which Captain Montgomery had purchased in 1772. Under Major-General Charles Lee, who was next in rank to Washington, work was started on the fortifications, but it progressed very slowly until after the British withdrew from Boston, on March 17, 1776, and Washington assumed command in New York. In June he inspected the area and chose 7 other locations for redoubts, 2 of which were placed on Manhattan and 5 in the Bronx. In orders of July 2nd, Washington placed Gen. Mifflin in command of the Kingsbridge neighborhood with instructions to finish the fortification as quickly as possible. Precious time, however, had been lost. Indeed, there were ample signs that the enemy was assembling a fleet in New York harbour and were pouring troops into Staten Island as a base of operations. This was in late June, 1776. Within 7 weeks the British accumulation of strength had swelled to a task force of 400 vessels and 30,000 troops. The British commanders, after leaving Boston, had

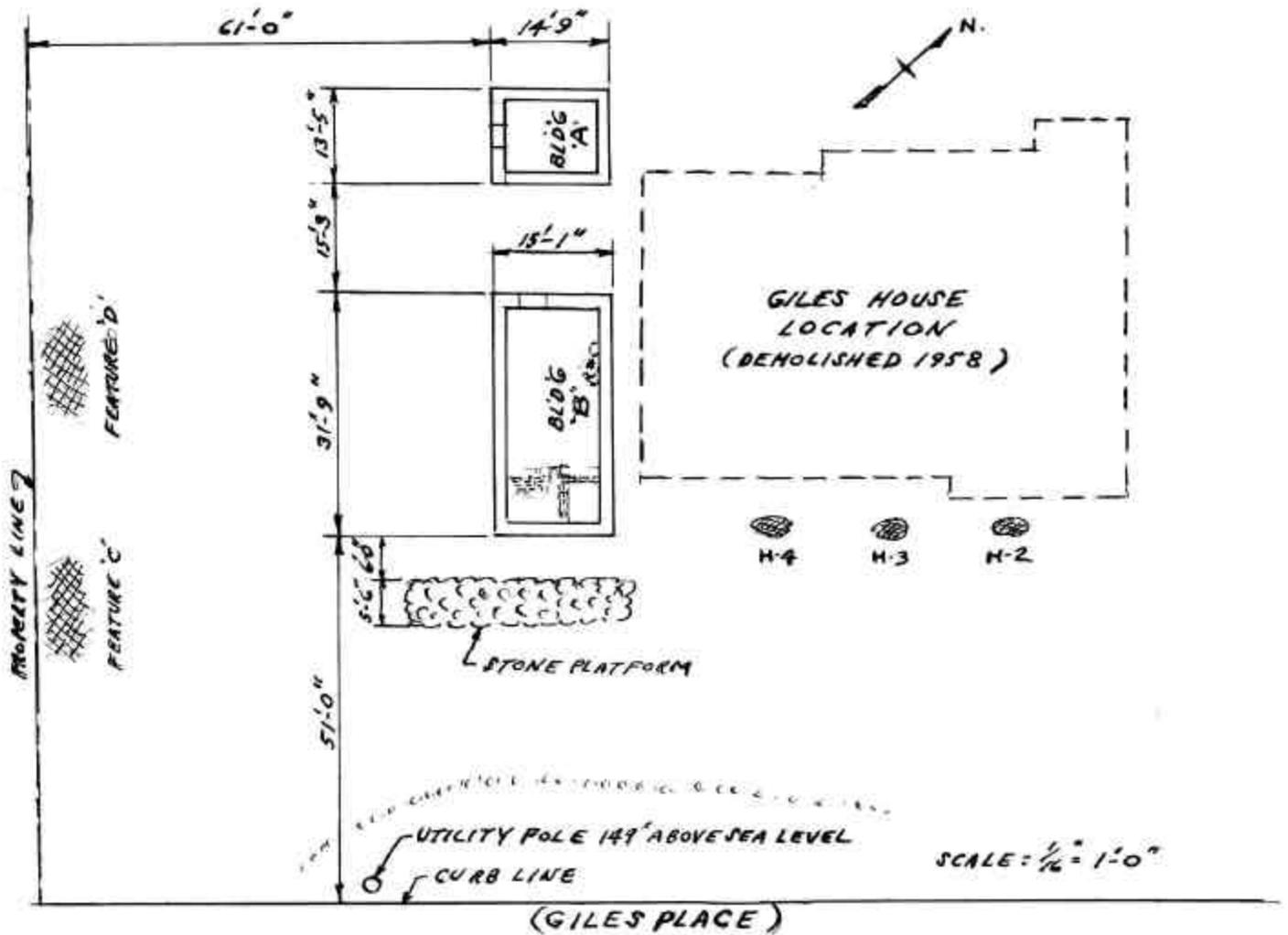


Figure 3. Plot plan of Fort Independence site.

decided to concentrate on New York, as the City, with its belt of navigable waters, had become a key position in colonial commerce and, obviously, its conquest was an essential objective. Besides, its capture would help separate New England from the southern colonies.

In an attempt to hold the city, batteries and defense works were thrown up at various places on both banks of the East River, and barricades were set up in some of the streets. In a wave of enthusiasm a gilded statue of King George (near the junction of Broadway and Bowling Green) was pulled down and sent in pieces to Connecticut where patriotic women melted them down into bullets. To close the Hudson, Fort Lee on the New Jersey bank, and Fort Washington on the New York bank were built and linked by a line of stone-laden ships fastened with chains and sunk to block the enemy. Then, north of the city proper, Washington inspected the key defense points recommended by Montgomery's committee and urged more speed on the construction of the fortifications: the Cock Hill redoubt commanding the mouth of Spuyten Duyvil Creek, the one on Marble Hill (later called Fort Prince Charles by the British) overlooking the Harlem River, and 5 others in the Bronx, including Fort Independence on Tetard's Hill (to protect the approaches to White Plains and Connecticut.)

On July 2nd Washington placed General Mifflin in direct command of the Kingsbridge sector, urging a quick completion of all the defenses because a British attack was expected hourly. In fact, that very same day between 10 and 11 o'clock, 4 British men of war, and several tenders, came through the Narrows. Under the supervision of Colonel Rufus Putnam, an engineering officer (the same who worked on Fort Washington) the Pennsylvania line, helped by the militia, pushed the construction of Fort Independence. But time was running out because events were moving rapidly.

On August 27, 1776, the British invasion began. Bypassing Manhattan, Howe sailed across the Narrows with 15,000 men and occupied the villages on the flatlands of Brooklyn where he was joined by 5,000 Hessians. There the battle of Long Island was fought. Having lost the engagement, Washington escaped during the night, leaving his camp-fires ablaze to divert suspicion. With his army of 9,000 he crossed to lower Manhattan but the retreat was almost a panic. In a letter to Congress, September 2nd, he wrote, "our situation is truly distressing . . . The militia, instead of calling forth their utmost efforts to a brave and manly opposition in order to repair our losses, are dismayed, intractable, and impatient to return. Great numbers of them have gone off; in some instances almost by whole regiments, by half ones, and by companies at a time. " Sadly he added, "With deepest concern I am obliged to confess my want of confidence in the generality of the troops. " To stop the deserters guards had to be stationed at Kingsbridge and at other points. About noon on September 15, 1776, the British landed almost unopposed (sic) at Kip's Bay (now foot of 34th Street). The American General Heath's commentary on the action stated (Abbatt 1901, pg. 52)

*"Here the Americans, we are sorry to say, did not behave well; and here it was, as fame hath said, that Gen. Washington threw his hat on the ground, and exclaimed 'Are these the men with which I am to defend America? "' Heath hastened to add (p. 52) "But several things may have weight here; - the wounds received on Long Island were yet bleeding; and the officers, if not the men, knew that the City was not to be defended."*

Feeling that he could not defend New York with such troops Washington decided to leave it behind. Several officers suggested that the city be put to the torch but Congress protested as it felt that eventually it would be retaken; but, by design or accident, a fire broke out anyway in lower Manhattan. In mid-September the army pulled back its lines to Harlem Heights where the Americans, for the first time in the New York City area, trounced the Redcoats in a buckwheat field (on the present sites of Barnard College and Columbia University) and chased them for more than a mile. This success seems to have made General Howe think twice about launching a frontal attack. For almost a month the two armies were inactive behind their respective lines, with the Americans entrenched in the northern part of Manhattan and the Kingsbridge locale. A floating, or pontoon bridge was thrown across Spuyten Duyvil Creek to keep communications open. Finally, Howe struck again. He decided to get onto the mainland and outflank the rebels. Sailing up the East River with a huge fleet, he wheeled around the American positions and established a beachhead on Throgs Neck, or "Frog's Neck, " or Point, on the foggy morning

of October 12th. Later the task force was swelled by 72 ships with German mercenaries under General William von Knyphausen. At the time, Howe wrote "(I was) determined . . . to get upon their principal communications with Connecticut, with a view of forcing them to quit the strongholds in the neighborhood of King's Bridge, and, if possible to bring them to action." Washington, however, was not to be trapped. Again he withdrew his forces, not permitting Howe to engage him in a pitched battle, the outcome of which could only be disastrous.

A few days later, Washington, alarmed by the British landing on the mainland, summoned his officers for a council of war. After considerable debate it was agreed to march inland lest the Continental army be cut off from the upper country. In view of the mounting pressure from the enemy, the eventual fall of Fort Independence and of the other nearby fortifications seemed certain, but three British warships had succeeded in running the Hudson River gauntlet through the blockade of sunken ships and on past Fort Washington. This no doubt influenced Congress who demanded that Fort Washington be defended as long as possible.

Two days after the council meeting the American columns started to retire, but there was no respite. Still trying to outmaneuver Washington, and cut his communications, Howe launched a series of well-directed flanking movements in rapid-fire sequence to throw the Americans off balance. It was on October 12 that he had landed on Throgs Neck leaving some troops there to drive a spearhead inland. On October 18, just six days later, he ferried additional forces from Throgs Neck to Pell's Point, a peninsula three miles up the coast, and launched another spearhead to penetrate the interior. On October 20, just two days later, some transports put General Knyphausen and 8,000 men ashore on Davenport's Neck, another peninsula further north, near New Rochelle, where a third drive for the interior was organized. Now the entire rear of the American forces was menaced.

In an attempt to keep the pincers from closing and isolating segments of his army in pockets where they could be cut to pieces by the enemy, Washington rushed to White Plains to organize some defenses there. Then he rushed back to the Kingsbridge area where a general retreat was already under way. In the meantime, the entire countryside was in turmoil.

Since the beginning of the war the area had been a hot bed of Toryism. Loyalists under James de Lancey had formed the Westchester Light Horse. Time and again they had raided the outlying farms for cattle to feed the British army. From this conduct they acquired the name of "cowboys." As one contemporary wrote, De Lancey was the "greatest cow jockey in his Majesty's service." However, not all the plundering was done by De Lancey and his men. Both armies, actually, had spread devastation, stealing horses, oxen, poultry and crops. They also tore down fences, barns and houses and cut down trees to provide firewood for their garrisons. Often, both sides disregarded whether the legal owners were friend or foe. Many individuals also helped to despoil the farms in pursuit of mischievous gains. Thus when the grand retreat started, draft animals were so scarce that if cannon and stores had to be moved the artillery and wagons had to be pulled in relays and often dragged by hand. Adding to the distress of the times was the morale of the American soldiers. Having suffered defeat after defeat, except for the brief but inconclusive victory at Harlem Heights, they were dispirited, not to mention poorly fed, poorly clothed and poorly paid, when they were paid at all and, at that, in Continental money which was growing more worthless day after day. Besides the periods of enlistments for many men were expiring during the months of September and October. Many felt that they had their fill of war. Regrettably, some were indifferent to the challenge and were ready to quit or desert but even as a force the Americans lacked the power to meet the challenge of the disciplined and well equipped British.

Pressing his advantage, Howe attacked White Plains on October 28 forcing Washington to withdraw to another position 5 mi. northwest. By this action Howe finally split the Americans. In the meantime, Knyphausen and his Hessians turned southward from New Rochelle and down the Old Boston Road to attack Fort Independence. Arriving at Kingsbridge, he repaired the bridges which the Americans had destroyed and removed the roadblocks of felled trees which had been placed in his path. When he reached the Fort he found it abandoned because, on October 28, while the Battle of White Plains was raging to the north, Colonel John Lasher, of the New York Militia, and the Fort's commander, destroyed the barracks and led his troops to reinforce the Fort Washington garrison. There was no other choice. American outposts around Kingsbridge were collapsing like a shell around its center; it was a matter of remaining to be encircled and

annihilated by superior numbers, or joining Fort Washington for a last stand. When Lasher evacuated the Fort he left in such haste that he was obliged to leave the cannon and 300 stand of arms. General Knyphausen took Fort Independence on October 29, 1776.

Despite the attempt to hold the twin post of Fort Washington on the Hudson, it fell on November 16th after a deserter gave the enemy the plan of the stronghold. Between 2,000 and 3,000 prisoners were taken, including men from Fort Independence. This was one of the severest blows to the Americans during the war in the north. In effect, it ended the British campaign of 1776 for New York City.

The enemy held Fort Independence for 3 years, but not without some discomfort in the interim. When most of the British army was committed elsewhere, principally in New Jersey, but with many detachments in Rhode Island Washington, on January 5, 1777, wrote a letter to Heath ordering that he harass the Kingsbridge area "as if you had a design upon the city. " The objectives were to try to force the British to bring some reinforcements back into the city, to help alleviate the pressure on other fronts, and, at the same time, to inflict as much damage as possible. On the 17th Heath began a concerted drive towards Fort Independence. Three American divisions converged on the neighborhood. General Lincoln advanced along the Albany Post Road to "Upper Cortlandt's" on a bluff to the west of the present Van Cortlandt Park. There he captured a mansion which usually housed both mounted and foot detachments from various German regiments. General Scott descended from Scarsdale while Generals Wooster and Parsons came down the Boston Road. Reaching the farmhouse of the old Valentine family, Heath ordered the cannons to fire on it if the British soldiers quartered there resisted. At the same time 250 men were dispatched into the valley to prevent them from fleeing to the fort. At the Gun Hill Road, near Williamsburg, two British light-horsemen unexpectedly came, in Heath's words, "plump upon the head of Wooster's column" (p. 100, *Memoirs*). Startled at the sight of the rebels they turned to escape. One was pitched from his horse by a shot but the other galloped off spreading the alarm among his compatriot soldiers at the Negro Fort and other lesser stations. With pandemonium breaking out all over, all the British who could, ran for the protection of Fort Independence "leaving in some places their arms, blankets, tools, provisions behind them, " while the Americans kept hot on their trails pouring rounds the fire into them.

With nothing to lose by asking, the Americans "sent a summons to the Commanding Officer of the Fort to surrender. " Perhaps it was hoped that the garrison, which at the time consisted of a body of Hessians, and the Queen's Rangers recruited by the renegade Rogers, would over-estimate Heath's strength and capitulate. When the summons was refused, the rebels sent two field pieces to the south of Fort Independence, "to a hill above Harlem Creek, not far from the New Bridge, " and not far from the Farmers' Bridge, and began to fire at a Hessian battalion near Hyatt's tavern on the other side of the Creek. To get to the water's edge for a better shot at the Germans, the Americans drew one of the cannon lower down the hill. To their surprise, they found themselves under the fire of cannon from an enemy redoubt, near the bridge which they did not know was equipped with cannon. To get out of this dilemma they struggled up the hill pluckily dragging their field piece with them.

Despite this little setback, the Americans raised considerable havoc in the neighborhood. So much so, that rumors flew far and wide that Fort Independence had been retaken. Indeed, Washington wrote Congress accordingly and it was a bitter disappointment when the official report was received to learn that such was not the case.

On February 6, 1777, another raid was made against Fort Independence with a strong detachment under Roger Enos, Lieutenant-Colonel, 2nd Connecticut, but again the campaign was mostly confined to raising hob among the lesser British outposts. This time, however, they were on their guard. Two days later the Americans subjected the Borough to a grand forage.

The next episode involving Fort Independence took place in 1779 when the British started to take forces out of the area for their Southern campaign. They dismantled their posts on the mainland, Numbers One, Two and Three at Spuyten Duyvil, and Numbers Five, Six and Seven on Fordham Heights and destroyed them as best they could, after moving the stores and garrisons to Manhattan Island. On August 16, 1779, the British removed the guns from Fort Independence, or Fort Number Four. The next day they demolished the magazine and on September 12th they abandoned the site.

Neither the British nor Americans occupied any of these fortifications again but the final chapter on Fort Independence took place during the grand reconnaissance of August 1781 when General Lincoln and the Marquis de Chastellux (a Major General in the French Army) occupied Fort Independence. However, it was not rebuilt or fortified. On July 21, 1781, Washington had advanced in force to the Kingsbridge sector to cut off the various light corps of the British and loyalists under De Lancey who were still ravaging the countryside with their raids and devastations. Lincoln and Chastellux poured their men into Fort Independence under the spyglasses of the British who fired on them from Manhattan killing the wounding several of our troops.

### THE FORT

In the early days of the Revolution, the American army did not have many engineers. Colonel Rufus Putnam, nephew of the Major-General of that name, was the chief engineer of the army and is credited with having designed Fort Independence. Apparently, he was every where at once for he also directed the construction of Forts Washington and Lee, among others, and the Paulus Hook defenses in New Jersey opposite the lower end of Manhattan Island.

No historical documents are known giving the precise details and dimensions of the fort and its construction, but the enclosure walls on the crown of Tetard's Hill (elevation ca. 149 ft.) were earthworks. Under date of January 24, 1777, Colonel Timothy Pickering wrote in his journal that the "work was ditched, fraised and surrounded by an abatis" (quoted in Commager & Morris, 1958, p. 532.) From this we gather that the earthen ramparts were thrown up from a ditch, forming a moat, and that they were rendered more protective against escalade and penetration by the use of pointed staked and felled trees with the ends of the branches sharpened. They were driven into the rampart in a horizontal or inclined position so that the sharp tips would face the enemy.

#### The Small Building - 'A'

The ruins of this building were 14 ft. 9 in. long and 13 ft. 5 in. wide. The doorway, facing south, was built one step up from a paved fieldstone entrance. The stone walls were of double thickness averaging a foot and a half in width but the bottom layer of stones, or base-line footing, was about 4" wider (Fig. 4).

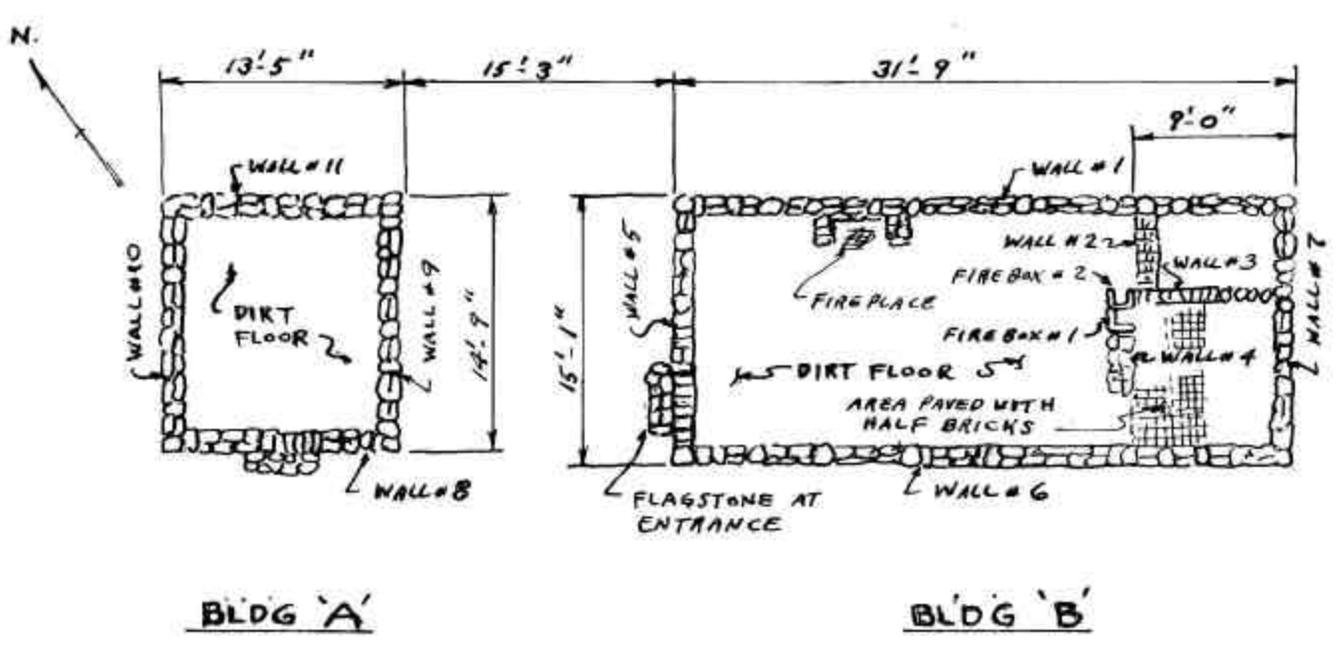


Figure 4. Plan of building foundations "A" and "B".

The building material was locally gathered rock, mostly micaceous, including Fordham gneiss which abounds in the area. Some, if not all, of the stones may have been quarried from outcrops on the hill's terraces. Nearly all of the stones had been roughly dressed in rectanguloid slabs and blocks. They were laid in courses of clean, yellowish clayey earth which the site provided from its subsoil. No mortar was used. Nevertheless the structure was solid and well built with the stones giving a general appearance of smooth walls both inside and out. All the stones were carefully aligned and leveled. The soldier masons who worked on the structure evidently knew their business.

The walls consisted of 5 tiers of stone and stood 2 ft. high from the base line. The west wall, however, was partly tumbled with the rubble inside the room. After removing the loose material, a 5 in. layer of discolored soil, heavily mixed with wood ash, was found over a 2 ft. area against the center of the wall. Objects found in the ashes were some nails, pieces of animal bones, a pipe stem fragment, the neck of a rum bottle, two iron "pike-butts," a caltrop, a piece of yellow-glazed crockery and part of a tinned-iron cup (?). Some one had obviously used the area as a hearth, in which some rubbish was also cast, but a formal fireplace was not intended originally as part of the building, to judge by the absence of dressed bricks or stones around the hearth.

The floor was earthen and very hard packed. It contained flecks of carbon and was marbled with black and fire-reddened earth stains to a depth of about 3 in. Embedded in the floor was a cuff-like fragment depicting the French King, Louis XV, a brass belt hook, possibly for a sword scabbard, and a broken butt section of a heavy, wrought-iron door hinge from near the doorway. The western wall had earth banked against it on the outside. The wall was dismantled from inside the room to study the earth profile behind it. The original sod line was detected a few inches above the level of the bottom stone tier. Apparently, part of the sod had been removed before laying the stones. Above it was found the banked accumulation of clean earth, 1-1/2 ft. thick and, finally, a thin layer of stained earth from the last surface. In this layer 20 lead shot balls were found, all in an intimate cluster. They had probably been dropped in a pouch, all signs of which had disappeared through decay. Three feet away, a well-defined, jet-black postmold was found penetrating the banked layer of clean earth. The mold was uniformly 1 in. thick and ended in a tapering point at the bottom suggesting that a regimental staff, pike or similar object had been stuck into the ground.

Originally, it was hoped that the building would turn out to be the magazine demolished by Knyphausen when the British abandoned the fort. However, a hearth would not have been ignited in a magazine, but it may be that the building had first been used as a hut and later as a depot for gunpowder and other military stores.

#### The Large Building - 'B'

It is clear that this structure served as quarters for one or more of the higher-ranking enemy officers. This became evident, not only from the nature of the building, but from the types of artifacts recovered such as a gold plated button, a silver regimental button of the 44th Regiment, some cuff-links, imitation gems, a pipe bowl with the British coat of arms, lead shot of smaller caliber, presumably for officers' pistols, and other items not normally associated with common soldiers.

The building measured 31 ft. 9 in. by 10 ft. 1 in. The foundation walls were only 2, and some times 3 tiers high. They were also of double thickness with the longer walls being 15 in. and 16 in. in width and the shorter ones 14 in. wide. They were also made of local micaceous stones blocked into rectangular shapes.

Only the northern wall had the stones laid in mortar. The other three were dry constructed, with the courses laid in native clayey earth, except for a rare patch of mortar, placed here and there, especially when one of the stone blocks had accidentally chipped or fissured.

The doorway to the building was not clearly defined as there was no sill or threshold, but it was apparently near the southwest corner, one step up from the small flagstone pavement shown in Fig. 4. This seems plausible since 3 heavy strap hinges were found here.

The building contained a large room and two smaller ones. One of the latter was paved from wall to wall with half bricks. All the other rooms had plain earth floors. They were hard packed

to a depth of about 4 in. and were streaked from wall to wall with fire reddened earth and black carbon.

Especially interesting were the two small fireplaces, Firebox #1 & 2, (Fig. 4) alongside some of the partition walls adjoining the smaller rooms. The large chamber contained the collapsed remains of a central fireplace - it was a dressed fireplace originally and was located against the northern wall. Details of its construction were lost due to its demolished condition. There was a great quantity of ash under the brick rubble which produced two cannon balls cemented together by rust. A billhook (Fig. 5 item #9) together with a pocketknife and fragments of ceramic ware and broken bottles were also found in the rubble together with a 3 ft. long iron rod with an eyelet at one end. This possibly was used to stoke the fire. The fireplace also contained many broken barrel hoops, some of which had been formed into S-shaped pothooks to support cooking vessels over the fire. An actual kettle was found smashed to pieces in the small brick paved room. This room also yielded some coins and buttons of the 44th Regiment.

Virtually all the bricks from the site were red. They differed individually in size but fell within ranges of 8 to 8-3/8 in. in length, 3-1/2 to 4 in. in width, and 1-1/2 to 2 in. in thickness. Three were apparently "home made" as they were more like slabs than brick. These big fellows measured, according to one intact specimen, 7-1/4 x 6 x 2-1/2 in. in thickness. The site also produced a few stray yellow bricks of the type usually regarded as Dutch.

Firebox #1 was in the northwest corner of the small room paved with half-bricks but consisted of a heap of rubble except for its basic outline which framed a thick concentration of ash. Items retrieved here were some pieces of fine glass. Near the fireplace 3 gunflints were found on the floor, together with several musket balls and pipe fragments.

Firebox #2. The other hearth, directly behind it, was in the large room facing its northeast corner. This one was in an excellent state of preservation. Three large upright stones formed a box for the fireplace. Its front was floored with large fieldstones on which a row of bricks had been placed to contain the ashes. The hearth was choked with burnt wood and fire-reddened earth. It contained many nails released from the burning wood. Three "pike butts" and a copper button were also fished out of the ashes. A large concentration of broken window glass was present in the small room at the northeast corner of the building foundation.

Many other artifacts were found scattered throughout the rooms, such as coins, pipe fragments, crockery, bottle fragments, cuff links, dice and other miscellaneous objects. These will be described and discussed in separate sections of this article.

### Structural Details

#### *Large Building 'B': Foundations*

##### Wall 1 - Dressed Fieldstone

(Outer) Length - 31' - 9", Width 1' - 3", Height 9" nom.

Structure: 3 tiers micaceous fieldstone joined with mortar.

##### Wall 2 - Dry-laid brick

(Partition) - Length: 4' - 3", Width 1' - 2", Height 10"

Structure: 5 tiers of brick, loosely laid.

##### Wall 3 - Single row of brick on fieldstone footing.

(Partition) - Length - 3' - 0", fieldstone with one layer of brick  
5' - 0", single tier of brick on dirt floor

Width - approx. 12" for fieldstone.

##### Wall 4 - Fieldstone & Brick composite

(Partition) - Length: 3' - 11", Width - approx. 12", Height 10"

Structure: 2 tiers fieldstone on dirt floor,

1 layer of brick

1 tier of fieldstone at top.

Wall 5 - Dressed Fieldstone  
 (Outer)- Length: 15' - 1", Width: 1' - 2", Height 9"  
 Structure: 3 tiers of fieldstone, no mortar.

Wall 6 - Roughly dressed Fieldstone  
 (Outer) - Length: 31' - 9", Width 1' - 4", Height 6"  
 Structure: Two tiers of dry laid fieldstone.

Wall 7 - Roughly dressed Fieldstone  
 (Outer) - Length: 15' - 1", Width 1' - 2", Height 6"  
 Structure: Double course two tiers of dry fieldstone.

*Small Building 'B': Foundations*

Wall 8 - Roughly Dressed Fieldstone  
 Length: 13' - 5", Width 1' - 4", Height  
 Structure: Three tiers of dry fieldstone.

Wall 9 - Roughly Dressed Fieldstone  
 Length: 14' - 9", Width 1' - 5", Height 1' - 6"  
 Structure: Three tiers of dry fieldstone.

Wall 10 - Roughly Dressed Fieldstone  
 Length: 14' - 9", Width 1' - 7", Height 1' - 6"  
 Structure: Double Course, four tiers of dry fieldstone laid in sand.

Wall 11 - Roughly Dressed Fieldstone  
 Length: 13' - 5", Width 1' - 8", Height 1' - 8"  
 Structure: Double course, four tiers of dry fieldstone.

Other Features

*Stone Platform* (see Fig. 3): An interesting feature was a dry-constructed platform, of layers of native cobbles and irregularly rounded, unworked fieldstones of different sizes, some approximating small boulders. It started at one end of a large rock outcrop. From there the platform, which was 5-1/2 ft. wide, ran parallel and adjacent to part of the eastern perimeter of the site for 30 ft. where it ended abruptly, near the roots of an old elm tree. It must have been close to, if not immediately behind, the earthen rampart, vestiges of which have disappeared due to gradings in the past and the construction of the Giles Place street. Under the stones, a thin layer of black soil was encountered indicating that they have been placed on the original sod which subsequently decayed. No artifacts were found between the stones, not even a musket ball.

The platform's purpose is not clear, but it may have been an improvised terreplein where guns were mounted and where sentinels on guard may have paced back and forth. If so, however, many a toe must have been stubbed, especially at night, because even with earth filling the spaces between the stones, the surface was very uneven with more than one stone protruding up to three inches above the others.

*Indeterminate Features:* South of the large building, two indeterminate features were located in a row separated from one another by approximately 20 ft. They were only partly observable since they were on the southern margin of the site and continued under a hedge.

One of the features (Fig. 3, cross hatched Feature 'C') had a hard packed floor mottled with charcoal granules, rust colored blotches from buried nails and some fire reddened stains. The northern edge was a very sharply pronounced jet black stain, 10 ft. long; the east and west sides of the feature were indistinct except for soiled earth. There were no stone footings anywhere. This may have been a tent site, or possibly a log hut-site which was later dismantled.

A few isolated brick fragments and quite a bit of mortar, in varying thicknesses up to 2-1/2", possibly from a makeshift firebox, were found as well as nails, animal bones, crockery, pipe fragments, some musket shot, and buttons including a 17th and 44th Regiment button. Most of this refuse was found stretched along the inner edge of the 10 ft. long log (?) stain.

The second feature (Fig. 3, cross hatched Feature 'D') also suggested a possible hut site but was even more indistinct in outline. The meager evidence consisted of the same approximate dimensions, soil discolorations and several patches of laid brick, plus a few loose ones. These bricks may have formed part of a paved floor or fireplace. The artifacts consisted of some fractured rum bottles, animal bones, crockery fragments, a few buttons and two or three coins.

*Campfires:* Three small hearths (Fig. 3, H2, H3, 114) were found outside the buildings. These were situated at intervals in a straight line along the upper part of the eastern rampart district where some soldiers, possibly on sentry duty, lit fires. All were characterized by a heavy concentration of wood ash and fire-reddened earth within a 2 to 3 ft. area and with only a few artifacts such as nails, "pike-butts" and an occasional musket ball.

One of the hearths was roughly lined on three sides by loose bricks raised a few tiers.

*Refuse Dump:* No large middens were found anywhere within the compound. Most of the garbage had probably been pitched over the sides of the promontory.

Off to one side of the southwest entrance of the large officers' quarters a small heap of dirt was found, trash which apparently had been swept out of the rooms. It contained bits of crockery, 2 or 3 plain copper buttons, a hollow button and a coin.

There was no such dirt pile near the entrance of the small building but outside, at the northeast corner, there was a small concentration of black earth with a few bone scraps and fragments of a salt glazed "scratch blue" saucer and hand painted creamware including parts of a cup.

By and large the British seem to have kept their fort fairly clean, notwithstanding the trash in the buildings, especially in the hearth areas, but no doubt the latter were emptied when they could hold no more or when they became particularly offensive. Moreover, our archeological observations are based on the condition of the fort after it was finally dismantled and abandoned and there would have been little point in tidying the place when it was going to be deserted. Food remains were principally the bones of cow and sheep. There was also a turtle carapace from near the double fireplace in the officers' building, a few peach pits, and an occasional, not to say rare, clamshell.

*Ash & Soil Discoloration:* By way of general observation, the areas between the buildings and in front of them were fairly clean and free of ash and soil discolorations. Even the original surface was difficult to detect by color, possibly because of heavy traffic which scuffed and denuded the turf. In areas reserved from the center of activity, where grass freely grew, the old surface was readily discernible as a thin, continuous black layer from organic decay. It is assumed that the stone footings of the two buildings originally supported walls and roofs of timber.

Nowhere in the fortification were there any indications of burnt timbers such as might have resulted from a conflagration of superstructures of buildings or of logs which may have been erected on the earthen ramparts. If the fort had been burned down by the Americans before they evacuated it (a point which testing does not make absolutely clear) the mess was cleared up by the British and, when the latter left, they apparently dismantled the wood and carried it off. With the collapse of the British offensive in the fall of 1779, Independence was abandoned. The guns were removed on August 16, the woodwork carried off by wagon on August 17 and "Independence was begun to be torn down. " (Kraft 94) "on September 12. " Part of the abatis from Fort Independence was used to strengthen Fort #8 when Independence was demolished.

It was previously noted that the floors of the buildings and of the two possible log or canvas hut sites had charcoal granules and earth, laced with black and red fire stoned areas. This might have been due to spillage from the fireplaces over a period of time. It may be noted that

this type of soil discoloration also occurred along the eastern rampart where the three hearths were. A burst mortar shell here, some cannonballs and the largest random distribution of musket balls imply the presence of a "firing line."

Except for the stone foundation, hardly any dressed rectanguloid blocks or slabs of stones were found on the site. Yet it is suspected that the foundation of the small building was once a few tiers higher. It may be that in the subsequent years following the British evacuation, some farmers of the neighborhood may have carted some of the stones away.

### Specimens

#### *Building Materials and Tools*

The stone, bricks and mortar which went into the structure of the fort have already been described. Only a few small pieces of uncharred wood were recovered, the rest having decayed. The additional building materials which were discovered consist of window components, hardware and tools.

*Window Casement Fragments:* No structural evidence of windows were found in the ruins of Fort Independence, but three fragments from one or more iron window casements were unearthed from along the eastern inside wall of the officers' barrack building.

One corner fragment (Fig. 5, No. 7) has a protruding pintle for anchoring either into a wall or wood frame around the window opening. The other two fragments appear to have shreds of straw embedded in the rust. It is known that straw was sometimes mixed in mortar for colonial walls. However, since no straw-filled chunks of mortar were recovered from the excavation, it would seem that the iron fitting has been "requisitioned" from a nearby well-to-do home and carried to the fort to provide a more luxurious window accommodation for the officers' building.

In contrast to the window casements, most of the humbler dwellings in the neighborhood probably had wooden batten shutters instead of glass panes in the window openings.

*Window Panes:* Over 100 pieces of flint, or "water clear" sheet glass were retrieved. Actually, the glass has a faint greenish tint, sometimes disguised by a slight whitish cloudiness, presumably from burial.

In quality the glass is rather uniformly thin and fairly free of such defects as shimmering flow lines, bubbles and scaled surfaces.

Most of the fragments were found within the eastern end of the officers' barracks (where the casement pieces also occurred) and especially along the inside of the north wall near its corner with the eastern wall.

*Heavy Hinges:* Five were discovered. The largest (Fig. 5, No. 1) is 26-1/4 in. long and has an elongated triangular blade. Nos. 2 and 3 incorporated an oval feature in the blades; the intact specimen is 19 in. long. No. 4 has a right-angled blade. On all, the butt end of the iron was curled to form a socket. No. 5 is another, but smaller L-shaped hinge.

The larger hinges, corresponding to the first 3 described, belonged to a door. They were found near the southwest corner of the officers' barrack where there was a flagstone pavement, presumably the entrance to the building. The rest of the hinges, found elsewhere on the site, may have been from doors or from wooden batten shutters. A sixth specimen, a small butt section fragment of a heavy wrought iron door hinge, was also found near the threshold of the small building.

Two other objects are related to this type of hardware: Fig. 5, No. 8 a strap hinge, and No. 7 a pintle, or swivel pin on which a socketed-hinge was hooked after driving the pointed end into the door or window frame.

*Nails and Spikes:* Handwrought nails were the commonest item on the site. They occurred in great profusion in the high hundreds, generally in advanced stages of oxidation with clumps of soil cemented by the rust. Very often they were represented merely by misshapen chunks of rust and sand. A few, however, were in perfect condition due to the preserving influence of the ashes.

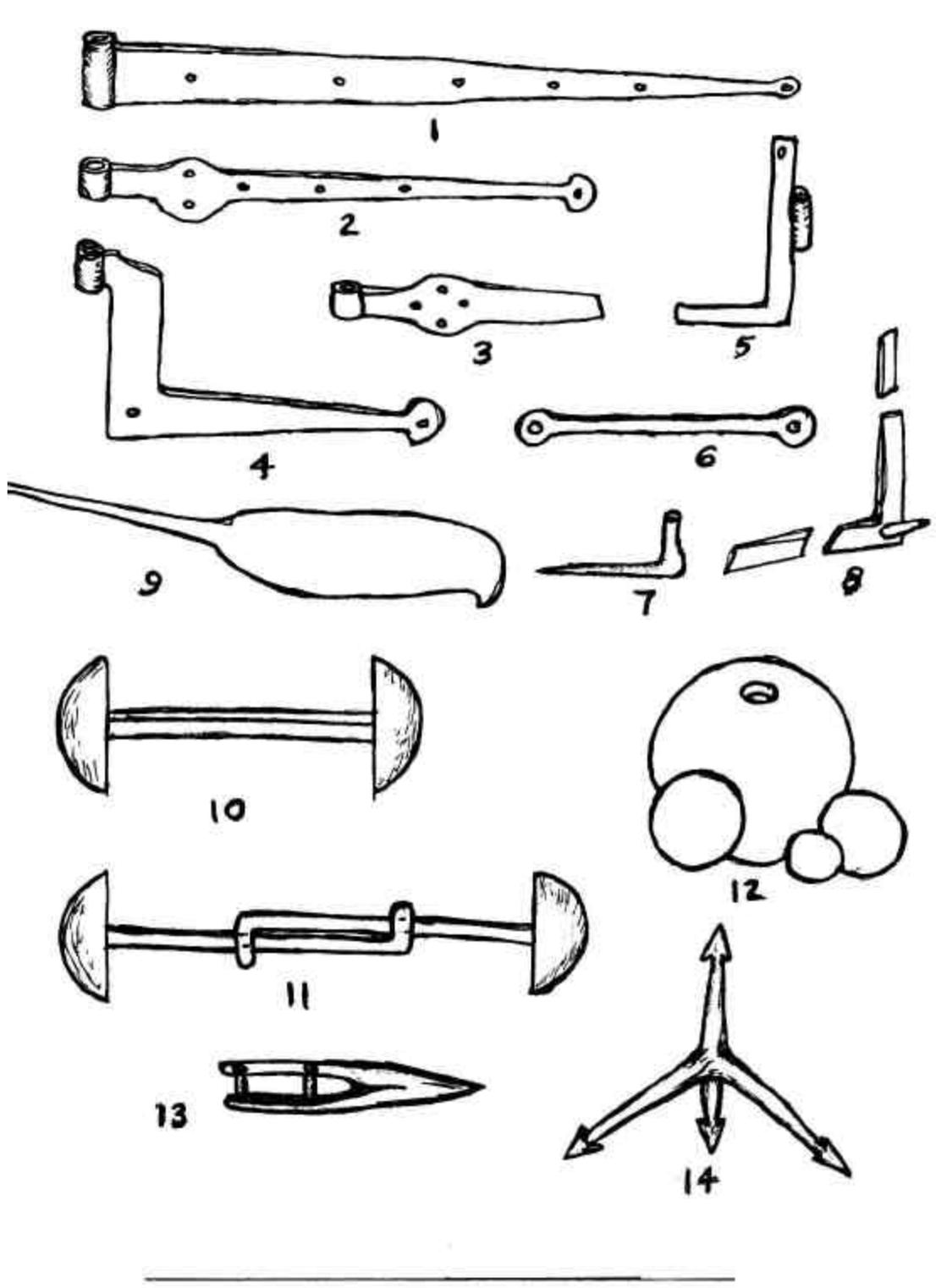


Figure 5. Iron Specimens, Items 1 thru 14. Item no. 14 is full size, all others are quarter scale.

Sizes range from 1 to 5-1/4 in. long spikes. All bear the characteristic facets, from three to six, on the heads, but distortions and some flattening from hammering the nails into place are evident. In cross-section they are square or rectangular. Many are bent from clinching.

Of interest is Fig. 9 which has an oval flare at the tip. The site afforded about 10 such examples which places them in a category of minor frequency. Six are intact; no 2 are of the same length, but the range is from 3-3/4 in to 5-1/4 in. long.

According to Trowbridge (personal communication) he has excavated a few similar tanged spikes from hut sites at both Mount Independence, in Vermont, and Crown Point, New York. The oval tips on the spikes seem to have been intentionally made, perhaps for a better grip in the wood and to prevent outward creeping.

Some of the nails could, of course, have come from cannon carriages, rude furniture, barrels and what not. Most, however, probably came from the boards which formed the super-structure on the stone footing of the officers' barrack and of other structures within the fort. Most of the spikes (with or without tangs) came from the eastern perimeter of the site where a wooden defense line of some sort, such as a palisade, may have been erected behind the abatis. Heavier nails or spikes would have been used for the coarser timber required for such a wall.

There is no way of telling which nails were American and which were British for there is little about a pre-modern nail to tell its origin, or, for that matter, its age. It has been said, for instance, that some Roman nails cannot be told apart from colonial ones.

*Nuts and Bolts:* The one and only bolt recovered is 5 in. long. The upper end of the shaft, below the head, is square in cross-section for about 2 in. and then becomes cylindrical. The bottom 1-1/2 in. is threaded for a nut, one of which is rusted in place on the specimen. The nut is 1-1/8 in. square and 3/8 in. thick. There is also a loose nut of similar dimensions.

*Punch or Chisel:* A 7-1/4 in. long iron object suggests either a punch or chisel for masonry. It is round in section with a diameter of 5/8 in.; the bottom portion however, becomes square in cross-section for the last two inches leading to the tip. With hammer or mallet, it may have been used to punch holes in wood or to dress the edges of stone.

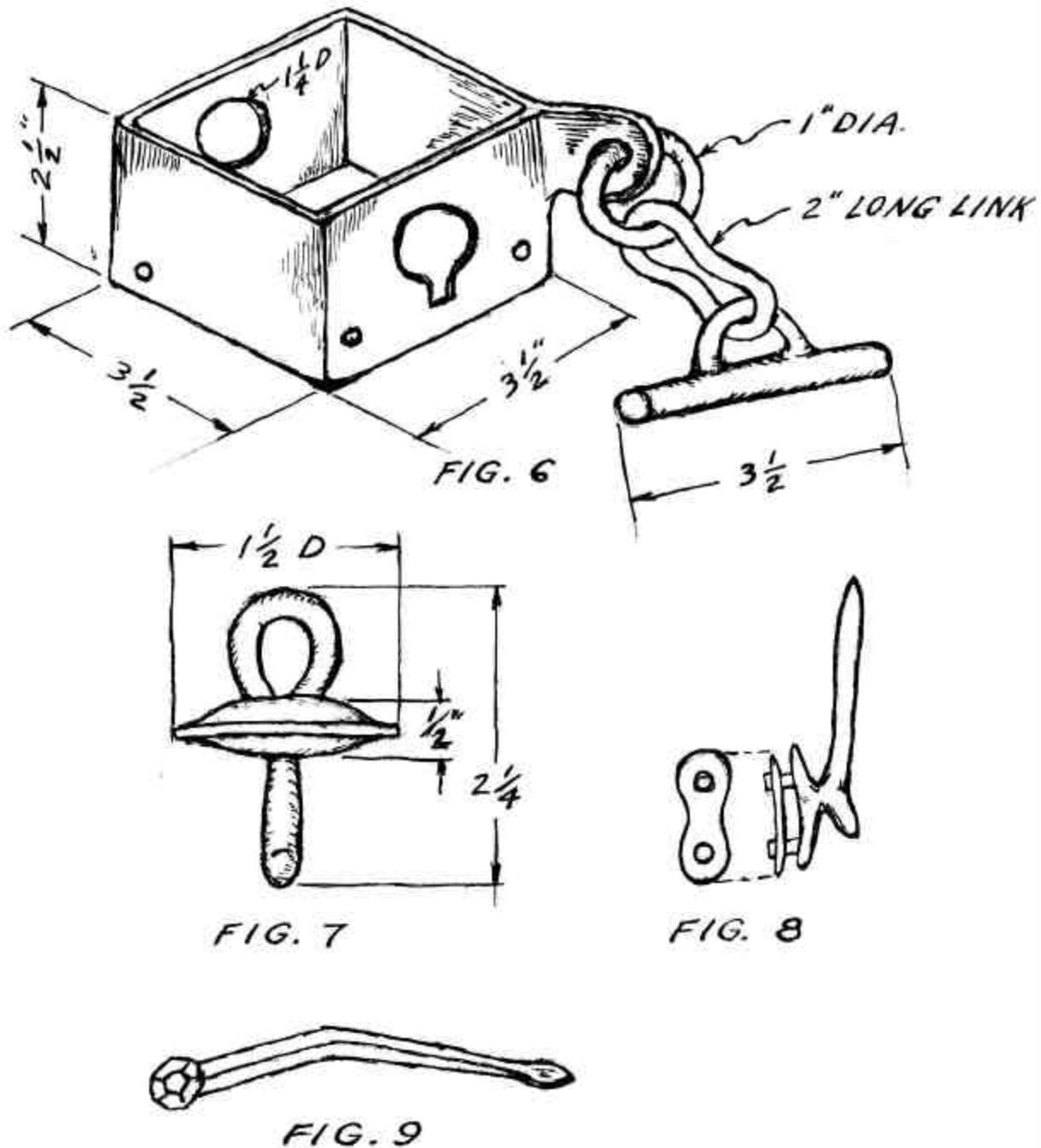
*File:* This tool, the only one of its kind from the fort, is a file of the plano-convex, or "half-round" type. It is badly corroded but traces of the rasping grooves are discernible. The top end has a spike with a faint suggestion of a groove. While the file is unquestionably Revolutionary, it looks quite recent but such tools have a long history. For instance, files of various types such as rat-tails, half-rounds, flat and square ones were found by Kidd at the missionary fort of Ste. Marie I. which was established by the Jesuit Fathers in Huronia (near Midland, Ontario) in 1639 and abandoned a decade later. All were undoubtedly of seventeenth century origin.

*Gimlet or Auger:* There is only one of these tools. It is slightly under 5 in. long. The shank is cylindrical, but the top forms a flat, wedge-shaped head (rectangular in cross-section) probably to fit into a wooden handle bar or turning level. The bottom end has a 1-1/4 in. concave-convex groove leading to a short (1/4 in.) boring or screw tip. Tools of this type were also found at Ste. Marie I and indicate that their styles have not changed very much since about 1650.

*Spade:* While spades are not necessarily for building operations, one specimen from Fort Independence is included here as a digging tool.

*Other Items:* The butt end of a camp axe was found. Also two rings or bands of forged iron which may have encircled the head of a wooden mallet. There is also a small lump of putty still in semi-plastic condition. Bolton also reported putty from the military hut-camp on the Dyckman Farm in Manhattan.

Even before Lasher was forced to evacuate Fort Independence, the American Army was very concerned over the need for salvaging wood. In the fall of 1776, General Greene directed that wagons be sent to the encampments to pick up the scattered boards. On the 28th of October he wrote to General Mifflin, "The people have been employed in getting the boards together at Fort Washington and the ferry. Some have been brought from King's Bridge. Today I sent up to Colonel Lasher, in command at Fort Independence, to know what assistance he could give towards taking down the barracks and bringing off the boards, and had for answer that he had orders to burn the barracks, quit the post and join the army by way of the North River at the White Plains."



Figures 6 thru 9. Miscellaneous metal objects.

As history tells us, on August 17, 1779 the British demolished the magazine and abandoned the fort on September 12. Whatever additional damage they may have done to the buildings before they left is unknown. Nowhere on the site were charred logs found, or any unduly heavy concentration of ash, as would be expected from roofs caving in by fire. Perhaps the structures were rendered useless by tearing down the walls. In any case, there is no doubt that over the ensuing years the local settlers consistently raided the site for building materials, reciprocating in kind the many times that the British and Hessians plundered their lands and homes.

## Items of Military Usage

Of interest are the various items which the soldiers made from the bullets. Two were beaten into flat discs, perhaps for game pieces or for cloth-wrapped buttons. Another, with a single perforation, was possibly intended for a button or a sinker for a fish line.

A bit of whimsy is a lead ball which was flattened into a cube for a pair of dice. The numbers were punched into the soft metal with the tip of a nail or other sharp tool. Normally, the 6 sides of a die are marked with a different number so that any two opposite sides total seven. On the Fort Independence specimens, one facet has five dots, and the opposite six, totaling eleven whereas the rest of the facets are consecutively numbered from one to four. Such technicalities, of course, would be of no concern to a soldier striving to enrich his purse. Dice fabricated from lead shot were also reported from a Revolutionary camp by Calver (1950, p. 77). In his words, "They are eloquent of camp life as it existed in the vicinity of Seaman Avenue, west of Broadway, and prove the British soldier's ability to meet his needs with the material ready to hand. "

There are also two ball shaped objects which are not made of lead, but of a white hard substance: one (11/16 in. in diam. ) is white on the exterior but the outer surface of the other (9/16 in. in diam. ) is brown.

*Caltrop*: This is a four-pronged device consisting of spokes welded at their bases in such a way, that, when thrown, one of the sharp points always lands upright. It is also known as calthorp, calthrop, caltrap, calthorn and crowfoot (or crow's feet). It was usually thrown in the path of advancing horsemen to pierce the feet of the animals. While designed primarily as an obstacle to impede cavalry, it was also used against infantry.

Caltrops were employed as early as Roman times and were still used (against vehicles) through World War II and the Korean conflict with almost no change in design. Quite a few have been excavated on Colonial sites in America, ranging from Jamestown through Fort Niagara and various Colonial forts in Pennsylvania. On such simple specimens it is difficult to determine nationality (Letter, D6231-IBH, dated 9/3/59 from Harold L. Peterson, Staff Historian, U.S. Dept. of the Interior, National Park Service).

At Fort Independence, 25 of these four-legged objects, whole and fragmentary, were found. They vary somewhat in size from specimens with spikes to 1-1/4 in, long to 2-1/4 in. spikes. Individual caltrops may have all 4 points in slightly different lengths. Precision, of course, was not mandatory as long as the devices served their purpose.

All the caltrops from the site have straight, pointed ends except for 2 which have barbed, or shouldered, tips as in Fig. 5, No. 14. These seem to be exceptionally rare. Peterson states that he has never seen caltrops with barbed points. This somewhat more elaborate form may have been imported. The others were either imported or made on these shores, possibly at times by the regimental blacksmith.

Only two specimens had been found previously, notwithstanding the numerous excavations conducted by Balton and Calver throughout the Metropolitan area. Both caltrops came from the same Inwood section of northern Manhattan. One of these was excavated by Bolton from a Hut Camp site on the Dyckman Farm. In reporting his find, he remarked that it was "a rarity we had long sought. "

The occurrence of so many caltrops at Fort Independence may be because it was one of the area's outer fortifications, indeed, on the edge of "no man's land."

*Pole Arm Socket*: (Fig. 5, No. 13): This iron item consists of a hollow, cone-shaped socket and two vertical extensions, each with two perforations, and was meant to receive a wooden rod or staff. The two short horizontal bars seen in the figure are not integral parts of the object, but rivets which were driven through the wood to secure the stick. A goodly length of the cone bears a slit to provide flexibility while inserting the staff.

It is believed that such sockets were the butt ends of pikes or some other pole arm, possibly of small flag poles or regimental color staffs. They were the ends that stuck in the ground. Some writers have called them tent-spikes, or pegs, or tent-pin butts and they are labeled accordingly in some institutional display cases. However, as Peterson (Letter

D6231-IBH, dated 9/3/59) stated, tent pegs of the Revolutionary era were made entirely of wood without metal fittings.

The objects are rather common. They are known from Jamestown, Ticonderoga and Fort Montgomery and Stony Point. Bolton remarked that they "have been found on every soldiers' camp" on Revolutionary sites in and around Greater New York City.

Thirteen of these "pike-butts" were recovered from Fort Independence. They vary in length from 6 to 6-1/2" and allow the entry of a pointed stick with a maximum diameter close to an inch.

Pole arms, such as spears, spontoons, and possibly the halberd, were popular as symbols of authority in the American Army of the Revolution but had been abandoned by the British for all save ceremonial purposes somewhat earlier. Three-blades of spontoons or pikes of various forms were found at Fort Washington (Calver & Bolton, 1950, p. 50). A crude halberd, which had evidently been forgotten in camp, was also found at Holland's Ferry Camp at 201st Street (Bolton, 1916, p. 194); according to him these weapons which had staffs seven feet long, were carried by sergeants only.

In June 1777 Washington wrote to the Board of War asking for an issue of spears that ". . . should also have a spike in the butt end to fix them in the ground . . . Those only intended for the Rifle Men. should be fixed with Slings and Spikes in the end, those for the Light Horse need neither." The American spontoon varied in style considerably and in 1778 a council of brigade commanders issued a specification recommending that the staff should be ". . . one inch and one quarter diameter in the largest part. . . ." These historical quotations and other helpful data were kindly furnished by Ivor Noel Hume, Chief Archaeologist of the Colonial Williamsburg Foundation (letter 8/28/1959 addressed to Lawrence Lane). This is somewhat wider than our specimens suggest. However, this could be explained as a variant, that the end was not the widest part, or that our iron terminals come from lighter trench spears. Also, they may have been British or Hessian rather than American specimens.

Most of the iron points found at Fort Independence came from the structural fireplaces or improvised hearths. This seems to confirm the various historical references to the scarcity of wood in the area. Apparently the soldiers burned everything they could find to keep warm during the winter months.

#### Weapons and Related Accessories

*"The importance of fortifying the pass at Kingsbridge was recognized at an early period, and immediately after ... the news of Concord ... men were employed in transporting cannon from the city to that point."*

Jenkins 1912 pg. 118

*Cannon:* Unfortunately, our excavation did not turn up any cannon but, as previously stated, it has been said that 11 had been hauled out of the foundation being dug for the Giles Mansion (The Riverdale Press-Oct. 2, 1958).

The only surviving information is provided by a photograph of an old British map in the N. Y. Historical Society. It is undated, but refers to the "Cantonments between Fort Knypehaussen and McGowans Pass. " The map shows Fort Independence and above it, in small print, that it had one twelve pounder and 6 six-pounders. These were probably the cannon abandoned by Col. Lasher when he hastily evacuated Fort Independence. The fort armament, like the garrison, probably varied from time to time, therefore making it difficult to pinpoint its actual strength at any one time.

*Iron Missiles:* To first describe as much as is known about the surviving items from the buried heap of about 500 missiles found outside the fort at the foot of Cannon Place, Bolton stated that there were:

a. two large bombshells, each about a 100 lbs. in weight, and about 10 in. in diameter. He added that they had eyelets cast in the top to aid in lifting. There were also smaller bombs, 6-7 in. in diameter. One was a 15 Pounder Bomb (on exhibit at N.Y. Historical Society).

b, solid shot of various sizes from 6 to 16 lbs. in weight.

c. about 60 bar shot, some of which were of the usual "dumb-bell" form and sizes, but half "were of a new and previously unknown expanding type. Two bars unite the half-round heads, each bar having an eye or socket embracing the other, so that the two heads can slide apart, opening the shot to nearly double its normal length, and thus forming a very terrible missile of destruction. " Expanding type bar shot: Bolton stated that the expanding shot seemed to have been an American invention because they were absent on British Revolutionary sites. However, they have not been found either on any other American fort as far as I know.

d. two chain-shot, each consisting of a chain of 7 links with a round shot at each end.

*Muskets:* During the Revolution, the chief weapon was the flintlock musket. At the outbreak of the war, the Americans used fowling pieces, the "Kentucky" or "Pennsylvania" rifle, developed by German gunsmiths previously as a frontier hunting weapon, and the British "Tower" musket, commonly called Brown Bess from its brown anodized barrel. The latter, a .75 caliber smoothbore, had been the standard weapon of the British for over 100 years. The British also had the Ferguson rifle, the only breech-loading Revolutionary rifle, invented by Col. Patrick Ferguson of the 71st Highland Regiment; this rapid firing gun was a "real innovation but not over 200 was used in the war. "

"After the Spring of 1777, and continuing to the end of the war, thousands of French 'Charleville' flintlock smoothbore muskets-the finest type of musket then in existence-were secured by American authorities in France and sent to the U. S. to be placed in the hands of the American troops. " No muskets were found during the fort excavation, which is explicable in that no soldier would intentionally abandon or leave it to the enemy. The only portion of a musket found was a part of a gun lock; this is a component of a gunlock mechanism vise, the flint holding jaw of the hammer. When the hammer was triggered the flint sparked the powder.

*Gunflints:* There are sixteen intact specimens.

Four are "French flints" of a honey-amber color with a very waxy sheen. Such flints are supposed to have been finished in England from long blades imported from France. In profile, the flints are characteristically thin quadrilaterals with the two long sides almost parallel. They range in size from 1-1/8 x 7/8 in. in 1-9/16 x 1-5/16 in.

The rest of the chipped stones are wedge-shaped in profile and with sizes running from 15/16 x 7/8 in to 1-7/16 x 1-3/8 in. Four are lustrous black flints with brown mottlings. Eight are English flints in mottled buff and gray; most are semi-lustrous.

Besides the foregoing, there are 10 pieces difficult to identify because they are either badly burnt or too fragmentary from shattering.

According to Calver and Bolton (1950, pp. 217-18) flints with lead sheathings were often found on American sites of the Revolution, but were extremely rare on British sites. In this connection, only one piece of lead, which may or may not have been a sheathing for a flint, was found in the officers' barrack.

*Lead Balls:* According to Calver (1950, pp. 78-80), while the Brown Bess musket of the British soldier was supposed to be of a 3/4 in. bore, the bullets recovered from the camps of the area usually measure only 11/16 in. The lead shot from the weapons used by the Yagers was of the same size as for the Brown Bess. As will be noted below, most of the lead balls from Independence are of the same diameter:

86 - 11/16"

4 - 5/8"

6 - 9/16"

19 - 1/2"

1 - 7/16"

1 - 3/8"

1 - 5/16"

3 - (Misshapen or spent balls)

Total: 121

Some of the objects bear ridges indicating that they had been cast in bullet moulds. The smallest lead balls came from the interior of the officers' barrack building; they may have been for pistols. Outside of the small building, in the northwest corner, sixteen 1/2 in. and four 9/16 in. balls were found in a single cluster. The rest occurred sporadically throughout the area, except that they were quite frequent along the eastern perimeter of the site where a firing line would undoubtedly have been placed in a military section against enemy troops.

#### Miscellaneous Camp Equipment

*"Square Sockets":* (Fig. 6) Bolton has mentioned having found at the Van Oblien Farm, which was doubtless used by the officers of the armies on the Heights, "several of the little rectangular iron plates perforated with a keyed opening, the use of which is unknown. Two large square sockets having a handle on chain were found." He also described from the barrack site of the Fort Washington Garrison; "a piece of iron chain with a handle or crossbar which was attached to a square socket of iron."

Fort Independence produced 1 intact specimen and fragments of 2 others. The objects were made from a heavy iron strap bent into a frame or box (approximately 4 in. x 4 in. and 2-1/2 in. in width); the two joining ends have eyelets connected by a large ring to which a crossbar is attached by a link. The box was presumably nailed to a square sectioned timber with a hole bored through it. In addition to the two large opposing holes (each 1-1/4 in. in diam.) on the Fort Independence specimen, there are small nail holes (3/16 in. in diam.) The badly rusted condition of the shackle box makes it difficult to establish whether all the nail holes were detected but there are at least 4, all told, on 3 sides of the object. The toggle is clearly intended to enable an additional length of chain to be added or removed as required.

While it is impossible to say for sure, it is suspected that it was a fitment on a wagon, carriage or cannon carriage, perhaps on the trail piece.

*Two-Ringed Object:* (Fig. 7) Made of lead, there are two rings or eyelets on this non-swiveling device, one on each side and at an opposite angle turn of 90 degrees. Its purpose is unknown. Opinions were solicited from several experts of colonial objects who were unable to identify its nature or use. The circular base or platform is 1-1/2 in. in diameter and bears a seam mark from the mold used to cast it. The inner measurements of the eyelets, intended for a rope, are, in one instance, 5/8 in. x 7/16 in. (intersecting diameters) and in the other, 1/2 in. x 7/16 in. The whole affair is 2-1/4 in. long.

*Billhook:* (Fig. 5. No. 9). Fort Independence produced one billhook, a wide, flat-bladed knife with a hooked point used to cut shrubbery and the like. The blade is 10-1/8 in. long with a maximum width of 3-1/8 in.; the stem or handle, which is square in cross-section, is 8-3/4 in. long. The overall length is 18-7/8 in.

Two other billhooks are known from Revolutionary sites in New York City, one from Van Oblien and another from a British camp at Holland's Hook on the Harlem River at 201st Street. The latter is on exhibit at the New York Historical Society.

*Digging Spade:* One iron spade, rather similar to, but clumsier than, our modern ones was recovered from the fortification. In profile, the blade is slightly curved. It is 13-3/4 in. long, 8-1/4 in. across the top and 7-3/4 in. across the bottom, which is slightly curled from abuse. Two separate concave tongues of iron (4 - 3/4 in. long) rise, one from the top of each side of the blade, to form a socket for the wooden handle. While the wood was decayed, a rivet which had been driven through it remains, indicating a handle diameter at that point of about 1-3/16 in.

A Revolutionary War period digging spade, on exhibit at the New York Historical Society, is similar in general characteristics. It came from the Hessian Yager Camp at 238 Street and Riverdale Avenue in the Bronx. This particular implement however, is distinctive in that it is marked "FR" meaning Frederick Rex, or Frederick the King. This, of course, alludes to the Prussian monarch.

*Barrel Hoops:* The transportation of flour, powder and other goods to the various military garrisons in the New York City area during the Revolution provided them not only with the commodities

but with the empty barrels, casks and hogsheads which could then be used for trash containers, storage and tubs for washing. They also furnished firewood and the iron hoops which could be easily bent for all sorts of improvised objects: hangers for clothing and equipment, pick-up tongs, kettle handles, broilers and pot-hooks to suspend a kettle over the fire. The cooper workers who made the barrels probably would have been surprised at the ingenuity of the soldiers.

Barrel hoops are common on Revolutionary War sites where they have been found scattered about, as at Fort Independence. No doubt they caused some accidents as happened one day to von Krafft while stationed at one of the local encampments in 1778. As he wrote in his diary, at dawn on Christmas Day, while walking around the camp to wake his men, he stepped upon a loose barrel hoop, fell over a log and cut his shin. He doctored his leg with rum and soap but it inflamed anyway and he had to spend a full month of inactive service.

At Independence, some pot-hooks were found in the central hearth in the officers' quarters. Also, one barrel hoop which preserved its original shape; it is 30-1/2 in. in diameter. The many others were either folded for disposal or broken into various lengths.

*Buckles:* As Calver (1950, p. 224) observed: "There is little to be said of the buckles except that their styles were infinite; their decorative designs, as a rule, were chaste in their character, and the handiwork of the artisans who executed the dies, or worked out the intricate details of manufacture, was supremely excellent. We would add, however, that we marvel at the precision and 'range' of the machine tools employed in shaping the dies for the stamping of such decorations as were purely mathematical in character which we see upon a few of the buckles and many of the civil buttons of the late 18th century." Details of about 8 specimens from Fort Independence are given below:

1. Small, convex brass buckle, rectangular, 1-3/16 in. x 1-1/8 in. with short "incised" lines in each corner within a triangular frame.
2. Small, convex copper buckle, rectangular, 1-3/8 in. x 1-1/8 in. with notches along the outer perimeter.
3. Large, highly ornate, slightly convex rectangular copper fragment, 1-3/16 in. wide and at least 2 in. long; die-stamped decoration of circles and ovals within "rope-like" frames connected by auxiliary design work between these elements.
4. Large, ornate, convex rectangular pewter buckle. 2-3/8 in. x 1-15/16 in.; stamped decoration of four equi-spaced flowers connected by parallel lines.
5. Large, undecorated, convex copper oval, 2-1/2 in. x 1-1/4 in.
6. Large, undecorated, convex copper oval fragment, 1-3/4 in. wide and at least 1-3/4 in. long.
7. Large, undecorated, convex copper oval, 2-3/16 in. x 1-7/8 in. Specimen retains part of the hinge-pin mechanism which was made of iron.
8. Long, narrow, undecorated, flat brass rectangular, 2-13/16 in. x 1-1/4 in. with a two-pronged swivel on the hinge.

There are also four very fragmentary buckle fragments and one brass hinge-pin.

These buckles probably run the gamut from waist-belt, shoulder straps and knee buckles to shoe buckles. The large, convex ones seem to belong to the latter category.

*Belthook:* (Fig. 8) Made of brass, the object was apparently riveted to a leather strap or belt by a small brass plate behind it with 2 holes, through which the rivets pass. The belthook may have been used on a sword-belt to carry a scabbard. In the Staten Island Historical Society there is an identical specimen from "The Old Fort," a British position on Crocheron's Hill, Richmond, Staten Island.

*Scabbard Tips.* No sword or dagger parts were found but there are fragments corresponding to the bottom tips of two scabbards. Both were made of brass sheathing; in one case the ends of the metal sheet overlap, while, on the other, there is a butt joining, reinforced by solder. In opening one of them, a piece of wood, preserved by the copper salts, was found conforming to the inner shape, thickness and rounded bottom of the brass wrapping. The second specimen (unopened) also appears to contain a piece of wood.

These wooden "plugs" may have been used as molds to help shape the tips. It is not known whether the scabbards were made entirely of brass, or perhaps of leather with metal tips.

*Coins:* Twenty-two coins were recovered from Fort Independence. Most are indecipherable. They are either completely blank from handling or with only illusively faint ghost images and inscriptions. However, all are copper pennies.

Among the legible coins, six carry the familiar image of King George II who reigned from 1727 to 1760. One coin is dated 1739, another 1740 (?) and a third 1751.

There are also three coins with a superscription reading "Hibernia", Latin for Ireland. Such coppers were minted in 1722 to 1724. They were produced by William Wood, an Englishman, who secured a patent from George I to make the money in halfpenny and farthing denominations for Ireland. The "Wood's coinage," as it is sometimes called, turned out to be unpopular there so, rejected in Ireland, most of it wound up as currency on this side of the Atlantic. The three coins from the fort bear the bust of "Georgius Gratia Rex" on the front, and "Hibernia" on the back.

Interestingly, none of the legible coppers belonged to George III who ruled during the Revolution. If history had not told us that the site was Fort Independence, the evidence, if accepted as such, would have given the fortification a dating of circa 1722-1751. Thus, no better example can be found of the fallacy of dating a site by coins alone since they were in circulation for long periods of time.

*Clasp Knives:* There are 3 of iron in the collection, all badly corroded. The blades are folded between 2 metal plates. These clasp knives, unlike today's pocket knife versions, are rather large, heavy and clumsy. Two are 4-1/8 in. in length, the last is slightly shy of 5 in.

*Razor:* Also in bad condition is an iron razor (5-1/8 in. long) with an elongated, somewhat Sshaped handle. The specimen has a bone panel (2-1/2 in. long, with a tapering width of from 3/4 in. at one end to 1/2 in. at the other) affixed to each side by two small rivets. Both panels are decorated with straight incised lines across the length of the bone. The razor was found in the Officer's Quarters.

*Sleeve-Links:* Among the various types of sleeve-links affected by British officers were some with imitations of Spanish and French coin designs die-stamped on bronze.

A broken link, recovered from the floor of Building A, bears a portrait bust of the French King Louis XV who died in 1774. Calver (1950, Plate X:4, pp. 225-26) depicts an identical memento, an intact pair of linked buttons found in the refuse dump of the Century House at 213th Street and the Harlem River where British officers had a headquarters during the Revolution. Fort Independence also produced a pair of copper cuff-links, each with a stemmed flower design. There is also an oval sleeve-link holding a whitish, opal-like stone incorporating green bands. Still another specimen, apparently of pewter, shows a lion, in intaglio effect, walking on all fours with head raised high and the tail curved upward in a graceful sweep.

*Imitation Gems:* Three artificial gems, sometimes called paste gems, were found. All are of glass. One is water-clear. Another is green, and the last, blue.

The faces resemble cut stones in that they have numerous facets. The backs retain a thin white film, presumably from the paste used to hold them in the settings of what were probably officers' sleeve links. Vitreous paste gems are not infrequent items in camp or fort debris of the Revolutionary War period (Calver, 1950, pp. 224-26). Another local specimen is known from the Schurz site, in the Throgs Neck region of the Bronx (Lopez, 1955) which also witnessed some Revolutionary activity.

*Canteen:* "Iron canteen of the type used by Hessian soldiers" found in officer's quarters against the northern wall near the central fireplace. A complete iron canteen which had been covered with tin was found in northern Manhattan: "It is the only specimen of its kind that has been secured in complete form, though many others have been found in a broken condition. The iron canteen was Hessian, the British being provided with canteens of wood." (Bolton 1924)

*Ceramics:* The ceramic debris from Fort Independence consisted of materials taken by the soldiers from the humble, and some from the not so humble, homes on the countryside. Heavy earthen and stoneware crocks are present. These were jars, possibly water coolers and other large containers required for stored liquids and edibles. The rest are dishes, bowls and possibly teapots and pitchers, to judge by the very small fragments. But most are cups and saucers,

some are very plain creamware and salt glazed ware, mostly without decorations. However, some are of the more expensive sort such as delicate but hard paste porcelain cups from the China Trade with esthetic flowers, pagodas, little Chinese men, all handpainted in blue over the glaze; some of these porcelains represent "clobbered ware." At one time it was fashionable to paint on the surface of these blue, decorated flowers in yellow, red and green. The effect was rather gaudy in its brilliant colors on the surface and the soft tones under it and it is little wonder that it soon went out of vogue. The total inventory is listed below:

<u>Quantity</u>	<u>Type</u>	<u>Notes</u>
174	White Stoneware	Fragments, at least 6 thin-lipped saucers, 2, twig-like handle pieces, 1 rim from small jar; all salt-glazed, white, undecorated.
27	White Stoneware (Hand Painted)	1 thin teacup with red roses painted over the glaze.
330	Creamware (Unpainted)	At least 5 saucers, 2 cups and 12 sherds from 1 large bowl with thin, rolled lip.
21	Creamware (Hand-painted)	Cup and saucer fragments with painted flowers in red, green stems and few blue touches.
1	Creamware (Banded)	Sherd with blue, yellow and black bands.
4	Whieldonware	Handle and body sherds, brown mottlings on cream colored surface.
122	Vitreous China	"Oriental" themes, blue on white; at least 6 cups, 2 saucers, 2 large teapot (?) handles.
27	Vitreous China (Hand-painted)	1 cup or bowl, blue on white decoration under glaze but with red and yellow flowers and touches of gold.
1	Vitreous China (gold edged)	White porcelain sherd, undecorated except for gold edge.
2	Delft	Small fragments of dish (?), blue decoration on white tin enamel, poor quality, buff paste.
107	"Scratch Blue" Stoneware	2 thin saucers, salt-glazed off-white color tinged with blue; decorated by incised lines filled with cobalt blue before firing.
<u>Coarser Wares:</u>		
15	Stoneware, Blue On Gray	Heavy utensil fragments, salt-glazed.
8	Stoneware, Brown	Rim, body, basal and strap-handle fragments; similar to Nottingham Salt-Glazed Stoneware.
6	Stoneware, Buff	Rim, body and basal fragments, at least 1 small jar with embossed decoration at each base-end of small handle.
6	Redware	2 thick and 1 thin rims, red paste with clear, lead glaze on both surfaces.
32	Yellow-ware	A two-handled bowl and other sherds, glazed, brown streaks over yellow field, buff paste.
24	Blackware	Body fragments, black slip on one or both surfaces, red paste.
<hr/>		
907	Total	

NOTES ON CERAMICS FOUND AT FORT INDEPENDENCE  
Identification by Miss Ruth Davidson, Feature Editor, Antique Magazine

*Creamware*

- Plain - of various degrees of fineness and color earthenware, manufactured in England during the entire 1700's until replaced by Wedgwood's bone china.
- Leeds Type - decorated with flora patterns in polychrome, called after the town of Leeds where much of this ware was made although some comes from various factories in the Staffordshire district.

Banded - Creamware decorated with various colored bands approximately 1/8 in. wide. No doubt related to the *Mocha ware* of the 19th century but without the moss decoration of the latter, and not in the brown and blacks of the mocha ware.

Whieldon type or mottled glaze - creamware decorated with a mottled glaze and occasional applied designs popular from about 1750 to 1800.

#### *China-Trade Porcelain*

Made in China for export to the west, especially after 1750 when the first permanent "factory" was established by the British at Canton. The *China-Trade* was actually manufactured 400 miles inland and then carried to the coast to be sold by the various factors. Remained popular until the middle of the 19th century. Designs are executed in underglaze blue on white with occasional additional colors or gilt in overglaze. Designs may be of Chinese motifs or European designs made to order. Occurs often with European coats-of-arms surrounded by Chinese floral decoration. This ware has been known as Lowestoft, Oriental Lowestoft or Chinese Export ware but the China-Trade Porcelain is generally accepted and describes it best.

*Bottles and Stemmed Glass:* There are various types of bottles in the collection from the Giles Place excavations. The quality of the glass is generally poor with entrapped air bubbles and rippling lines from the glass flow. When excavated, this common glass is quite often found with a beautiful iridescent patina or film in rainbow hues, but this was not generally the case at Fort Independence, probably because of soil conditions.

The bottles were hand-made and are generally tall, cylindrical and of a green-black glass which sometimes almost looks black. Near the mouth there is a grooved "string-rim." Usually, a piece of fabric was placed over the cork and tied in place by a string or piece of wire which the groove held in place.

Both the neck and base are thick, but the shoulders and mid-wall sections are usually thin which explains why few bottles are ever found intact. The bottoms are deeply indented, some more so than others, and often bear a scar or pontil mark from the iron rod used in glass-making to manipulate the glass while it was still soft. On some specimens the rough edges of the pontil scars had apparently been partly removed by grinding.

One glass fragment has a prunt or seal bearing the letters IHK. Only people with money could afford the extravagance of having their initials on bottles. Perhaps this particular bottle was a gift to the British by a wealthy loyalist or just another instance of military "requisitioning," this time from someone's wine cellar.

*Stemmed Glasses:* Only a few fragments were found. The glasses had probably been snatched from taverns or from the tables or cupboards of country-side homes. The glass is clear. One stem fragment is a stout cylindrical leg, containing white, spiraling threads. To this type of glass belong many of the Jacobite glasses "which commemorate the old or the young Pretender."

*Liquor Bottles:* In such objects, used primarily for rum, schnapps, wines and other spirits we have archeological evidence of the robust nature of the soldiers' life in camp. During the Revolution it was not uncommon to issue a daily ration of rum. Bottles of this sort are so plentiful on military sites of the period that it appears that there were more drinking than fighting, or even eating, during the war. Next to nails, rum bottle fragments were the most plentiful at Fort Independence. There were hundreds and hundreds of pieces.

*Gin Bottles:* Moulds were used to shape these square-bodied bottles. They are generally tall and more delicate than the ones just described. The glass is green-black, light green or flint. It is believed that this type bottle, which usually held gin, was invented by the thrifty Dutch for partitioned boxes as a space-saving factor for more economical shipments.

Gin bottle fragments are often present on Revolutionary sites where they usually occur in small numbers as compared with rum bottle fragments. This was the case at Fort Independence where they amounted to fewer than 10 bottles.

*Octagonal Bottles:* A totally unexpected find was one basal fragment and one wall section, both of green-black glass, belonging to a type of bottle with eight sides and as many angles.

Actually, the base is essentially rectangular but all 4 corners are "truncated," as it were, thus producing 4 narrow sides for a total of 8 walls. The bottles were made in moulds.

In 1957, Hume reported "innumerable octagonally-moulded bottles" from Williamsburg, Virginia, with seals bearing dates of 1769 and 1770. Judging by his illustrations, the overall shapes of the Virginian bottles are not quite the same as the Fort Independence specimens but the manufacturing technique was the same. Hume suspects that this kind of moulding might be characteristic of colonially made bottles since they seem to be rare in England on sites of the same period.

*Pattern-Moulded Bottles or Flasks:* The glass-making technique for these flasks was to blow the glass into a pattern-surfaced mould to give it a decoration as well as a shape. The patterns thus formed are ribs or swirls, parallel lines, a field of ridged ovals, diamonds and other simple geometric designs. All told, there are fragments belonging to at least 3 delicate flasks of this particular color, shape and pattern. From the lip, which is flat and slightly irregular in height, a short tubular neck gracefully expands into an oval body with a concave bottom bearing a pontil mark. The pattern consists of a ribbing which swirls from just below the lip into lines extending in parallel fashion to the base. The glass contains many air bubbles but is an attractive dark, almost emerald green. The color, however, varies in intensity depending upon the thickness of the glass; it is deep green around the base, neck and shoulder but changes to a pale green translucence in the body sections.

It is estimated that the bottle was about 7 in. high with the intersecting diameters of the oval cross section measuring about 3-1/4 in. by 2 in. Except for the base, which is quite thick, the glass is only 2 mm thick around the lip and shoulders; parts of the body are even less, only 1 mm, which made the flask extremely fragile.

The rest of the pattern-moulded bottles, all fragmentary, are of either green or clear glass, but again, with such defects as air bubbles and flow lines in the matrix. Some of the flint pieces are remarkably clear but some have acquired a white cloudiness. The patterns represented are fields of ovals, and, in another group, diamonds. Both types of decorations are outlined by ridges.

*Phials:* These small bottles may have held perfumes for the vainer members of the officer's staff or medicines for the sick or wounded, or remedies to alleviate minor digestive distresses and the like. One is 4 in. high, of a light or pale green color. Originally, it was a bit higher; the entire lip is missing. The circular base has a diameter of 1-7/16 in. with a 5/8 in. deep concavity.

A similar bottle, but of very clear flint glass, is indicated by another basal fragment, 1-5/8 in. in diameter. Here the concavity is very slight, but the base, like the previous one, bears a pontil mark.

*Pewter Spoons:* Table knives and the usual kinds of forks of the period with from 2 to 4 prongs were absent at Fort Independence. Pewter spoons are represented by only one fragment, preserving part of an oval bowl and part of the stem which is plano-convex in cross-section.

The underside of the bowl has a "rat tail" connecting it to the stem to reinforce the junction.

*Sander Tops (?):* Two perforated dome-shaped copper objects resemble salt or pepper shaker tops. However, they may have belonged to sanders used for sprinkling sand on letters and documents to dry the ink.

One has 6 perforations and the other 11, not counting 1, apparently for affixing, which appears on 1 of 2 basal flanges. Both articles have a short ornamental stick or "tower" rising from the dome. Each tower, in turn, supports a petite, somewhat onion-shaped terminal. There are no indications that the specimens had ever been silver-plated.

*"Jingling Johnny" (?):* Primarily a military band instrument, common in the Russian army, and more or less in others, is the so-called "Jingling Johnny," a frame of small bells that is sharply shaken to accentuate parts of the music. The Glockenspiel ("bell playing" in German) is also fairly common.

Fort Independence produced 56 thin, hollow rod fragments and a number of small iron cups, or "bells," all in positive association. It is believed that they formed part of a "Jingling Johnny" or Glockenspiel.

Placed end to end, the 56 pieces of tubing are 4 ft. 3-5/8 in. long. They may represent two or more of the supports for the bells in the frame. The tubing is 3/16 in. in diameter (some are slightly less) and was made by rolling thin sheets of iron.

The bells are thin and cup-shaped with a hole through the center so that they could be slipped onto the tubular supports. It is estimated that there are 11 bells. Each is 5/16 in. high, but diameters (based on 5 intact examples) vary within a range from 3/4 in. to 15/16 in. Four of the specimens have a very small hole punched near the edge; originally, there may have been 2, one at opposite ends, but it is difficult to tell because the objects are badly rusted. The small holes might have been used to hang tassels on the bells.

*Leather Scraps:* There is one round leather button (1 in. diameter and 1/4 in. thick) in poor condition, with scabby-looking surfaces from crackling. There are also 9 scraps. Four are curved strips, each consisting of 2 narrow pieces of leather. They are held together by a procession of 18, small, 4-sided tacks (averaging 5/16 in. in length) with faint bulbs for heads which are flat-topped. The sharp tips of the nails do not always protrude, but when they do they are either blunted or turned back.

The scraps are apparently hem fragments but it is anyone's guess what they were originally, the welt of a shoe, part of a leather trapping, the lining of a Grenadier's cap, or what have you.

*Lead Strips:* Bolton has described having found on a Revolutionary site, ". . . a number of scraps of thin sheet lead . . . which had been cut into various shapes by knife or scissors. From their quantity and appearance they are assumed to have been used for padding the lapels of uniforms, or to have been sewn into the lower edges of coats and were probably in the discarded garments thrown into the dump. "

At Independence, 26 thin lead strips were found, up to 3-1/2 in. in length and from 3/16 in. to 3/8 in. width.

*Brass Lid or Facing:* This item is circular, 4 in. in diameter, and brings to mind some of today's metal lids, especially since it has a double groove, as for an air-tight fitting for the lip of a can. However, the grooves might have been merely ornamental but, notwithstanding, it still suggests a lid or cover. It has two narrow, rectangular slits, or openings (each 7/16 in. by 1/8 in.) at opposite ends, perhaps to permit the passage of a leather strap. Precisely what it was, whether indeed a lid, maybe for a cylindrical cartridge box or something similar, or a decorative facing held in place by straps, or metal tongues, is unknown. The fact that it is of brass would tend to indicate that it was not intended for something overly common.

*Indian Artifacts:* There were few of these. Present are some stone chips or wastage from the manufacture of arrowheads and other implements. Three are of local flints and one each of quartz and jasper. Another object of broken flint is finely chipped along one edge and may have been a scraper or knife. A broken pebble of pale yellow jasper was also found, as well as another piece which had been crudely chipped into triangular shape. It may have been an unfinished triangular arrowhead or a reject.

More interesting are three small pottery pieces belonging to at least 2 vessels. One is a neck section from a collared vessel. The others are rim fragments and are decorated by incised lines in the Iroquois manner.

It would be tempting to attribute these items to Indian allies, especially since the pottery is known to be very late. One sherd was found in refill from the Giles cellar excavation. Another appeared in clean subsoil a few inches away from, and at a slightly lower depth than, the bottom face of the northeast cornerstone of the Officers' Barracks. This implies that the sherd was there before the building was erected. The rest of the material were random finds; in no instance were they associated with any of the Fort's features or artifacts, or with the floor level of the compound. Consequently, it appears that there was no connection and that the only scene we can envision is a small band of Indians occupying the hilltop prior to the Revolutionary events.

*Tiles:* Under this heading we have a solitary fragment of a blue-on-white, hand painted "delftware" tile which was probably made in England or Holland. In all likelihood it was ransacked from the wall or fireplace of a nearby private home.

*Clay Pipes:* A total of 55 pipe bowl fragments were excavated from the site. About 50% of these were small heel pieces with the raised initials "W&G" or "T&D" appearing on opposite sides of the heel drops. These types, as well as the "RT" encircled by a heart, have also been found on British Revolutionary War campsites in Richmond, Staten Island (Sainz, 1946).

The breakdown of the various types is given below:

<u>Decoration</u>	<u>Quantity</u>
Plain	10
WG	21
TD	8
WM	8
PB	2
RT (within circle)	2
RT (within heart)	1
Fluted	2
Coat of Arms	1

One decorated pipe stem fragment was found among the many plain stem pieces. However the type of decoration was not noted.

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### A PETROGLYPH IN THE MID-HUDSON VALLEY

Michael F. Laccetti

Van Epps-Hartley Chapter

#### Introduction

The petroglyph, located at the end of a bay on the eastern bank of the Hudson River, is bounded by a small tidal marsh and the Penn-Central Railroad right-of-way which intersects the bay. Directly south of Albany, New York, the bay lies in close proximity to the boundary lines separating Columbia and Dutchess Counties. Since the existence of the carving was postulated on a local belief that the feature marked a Sepascot Indian trail leading inland from the river, knowledgeable neighboring landowners were concerned with the preservation of the petroglyph which can be reached by boat. Their awareness of the importance of the unique artifact has prompted the referral of the petroglyph site to the New York State Historic Trust as a part of its state-wide historic preservation survey begun in 1967. In November, 1976, the writer helped locate and then inspect the petroglyph.

The off-shore rock on which the design is carved has the appearance of a glacial erratic, but is a water-isolated exposure extending from the shoreline bedding of ice-striated graywacke of the Hudson River series (Holzwasser, 1926:59). The upper face of the rock is discolored a mottled red and tan and is heavily damaged by exfoliation. The carving, however, is well-protected because it lies within a vertical shallow depression, low and on the northern face of the rock. The portion of its outline extending into the tidal surface and muck about the lower face of the rock was not investigated to determine the extent of the carving but the outlines appear to gradually terminate. It is not known if other carvings are present on the lower faces.

#### Design Elements

Two design elements have been found thus far. Design No. 1 is clearly human and Design No. 2 is a small group of letters found on an unmarred area of the upper surface of the rock. In Design No. 2, the long vertical stroke of a 5cm high letter B of indeterminable script is made up of a series of marks weathering similarly to those of the human figure. The patina covering the letter B and the remaining unclear letters is smoother than on the partially protected figure and lighter in color than its graywacke matrix. The letters are cut with a metal tool and are of recent origin. Design No. 1 is nearly complete except for missing parts of the crown and an appendage (Figure 1). The upper part of the oval facial outline has an accentuated band-like feature continuous with the irregular placement of lighter tool scars making up the cheek outlines. Feather-like protuberances are joined to the forehead feature and extend over the crown of the head. The joining of the oval face with the angularity of the shoulder lines is a rudimentary depiction of human anatomy, perhaps traditionally in keeping with other regional carvings. An inexplicable symbolic curved extension terminates the right and left appendages, but a sharply bent middle arm segment is presumably missing from the left appendage.



Figure 1



Figure 2

The entire carving occupies an area of about 45 cm by 50 cm on the rock face. The width and depth of the facial outlines average 12 mm and 5 mm (Figure 2). The distance from forehead to chin is 18 cm. The prominent nose is clearly incised and 40 mm in length. The eyes are about 12 mm in diameter and 5 mm in depth. The irregularly shaped mouth is about 40 mm in width. The lengths of the right and left protuberances of the head are about 10 cm long and 20 cm apart; that of the middle protuberance is about 7 cm in length and has been marred by exfoliation. The remaining visible lower body extremities is about 20 cm in length and, like the worked outlines throughout the figure, have an average depth of 2 mm-3 mm. A cluster of several pecked round symbols each 10 mm in diameter near the bottom of the figure completes the design.

### Interpretations

The entire carving seems to have been rendered at one time since the tool scars are compatible in character throughout the figure. The weathering and patina are uniform in appearance and thickness. The outline is nearly intact with no signs of damage to the patina except for the humeral portion of the left appendage and the middle protuberance on the cranial portion of the figure which has resulted in a cruciform appearance. In forming the mouth, the tool marks are in an erratic, peripherally punctuated outline shaped by pecking. The eyes and the well-executed curved extremities grooved by cutting and rubbing demonstrate characteristic techniques found in aboriginal carvings. Linear tool marks forming the right lower waistline and right shoulder and the incisions of nose outline, place the rendering of the petroglyph at the contact or post-contact period when the suppliers of the metal tools were white contemporaries.

Found in a setting occupied by members of the Mahican Confederacy, c. 1700, the Mid-Hudson figure appears to portray an aboriginal wearing a kind of *Gos-to-weh*, a traditional Iroquoian headdress, of three feathers affixed to a headband and serving as symbols of authority or of guardianship of the Sepascot trail at a well-marked ritualistic location. A clear-cut shamanistic relationship of the protuberances above the facial features and the symbolism of the curved appendage terminations in depicting some important event or motive to execute the petroglyph does not emerge in this report. However, Ruttenber (1872:394) cites the location of a rock inscription on the western bank of the Hudson River at Esopus Landing in what is now Ulster County, which reveals a pictographic inscription of those times (Ibid:157). It is in the same rampant style as the Mid-Hudson petroglyph, and is said to have been made with a metallic tool. The figure holds a firearm, indicating the era of the introduction of firearms and gunpowder. Ruttenber further states, "The plumes from the head denote a chief or man, skilled in the medico-magical arts" (Ibid:394). The plumes pictured in Ruttenber are remarkably similar to those of the Mid-Hudson petroglyph.

### Conclusions

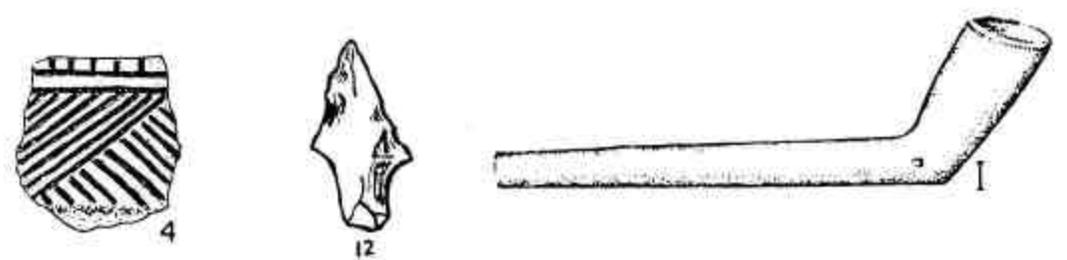
The petroglyph is not modern. Its origins are unknown and its motif is unexplained but it has been documented as a Riverine Hudson Valley aboriginal carving, adding to sculptured forms of expression found in New Jersey and Pennsylvania.

### References

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THEORETICAL CONTRIBUTIONS**

Edited by Robert Schuyler  
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The following is an extract from the preface:

Historical Archaeology: A Guide to Substantive and Theoretical Contributions is an attempt to create the first source book for the field. It is inclusive and should serve as a text or supplementary text on both the undergraduate and graduate levels while it also presents an ingress for the general reader or professional archaeologist who is entering the subject for the first time. It surveys both the subject matter of Historical Archaeology and the theoretical interpretation of those data by bringing together 35 reprinted items, including two full site reports, which are structured into five major sections.

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