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BULLETIN OF THE
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BRONSON MUSEUM
Tel. 222-5470

This is the Society's museum, 5th Floor of the 8 North Main Street Building, Attleboro, Mass. — Museum hours are from 9:30 to 4:30, Mondays, Tuesdays, and Thursdays. For special arrangements to visit on other days, contact the Director, Maurice Robbins, or the Curator, William S. Fowler at the Society Office, Bronson Museum, Attleboro, Mass.

The Museum includes exhibits of artifacts and seven dioramas portraying man's prehistoric occupation of New England. The displays are arranged so as to show man's development through four culture stages, from early post glacial times.

The most recent diorama extends 15 feet across the front of the museum. It depicts an Archaic village of seven large and unique wigwams as indicated by their foundations, excavated at Assowampsett Lake by the Cohannet Chapter. Human figures to scale make the scene come alive and help create what unquestionably is an outstanding addition to our ever growing museum displays.
In about 1790, the first Arnold to settle in Greene, Rhode Island built a house and several outbuildings on land, which has been in the family ever since. As a boy, I grew up on this ancestral farm, and as years went by had explored nearly every cranny of it. A large never-failing spring still produces an active flow of water, as in the past, and no doubt influenced selection of this site by my Arnold ancestors. But what pertains more specifically to this report is existence near the spring of a number of massive boulders, which jut up out of the ground in a single group, and may be part of an escarpment. As they rise up over a more or less level terrain, their prominence is inescapable although surrounded by woods, and have always been a natural focal point of interest.

In about 1942, John Hudson, past president of the Narragansett Archaeological Society of Rhode Island, called my attention to the prominent overhang of one large boulder. He suggested that this might have been used by aboriginal man for a shelter, and might yield hidden secrets of earlier days, if the shelter floor were to be excavated. In time his idea began to take root, and several years later, with spare moments available, I decided to do a little exploring. So in 1963, using a trowel whenever possible, I began to turn over the soil underneath the overhanging boulder. Below a thin layer of forest duff and decayed vegetation there extended a more or less uniform deposit of yellow soil. At frequent intervals this was interrupted by rough slabs of gneiss, but none too large for convenient removal by hand. Some were reddened as if from fire burning.
Almost immediately I began to turn up artifacts in the form of projectile points, which seemed to confirm Hudson's former suspicions that here aboriginal man had once lived. With my curiosity now aroused, I returned day after day to the site, which began to take shape in my mind as a shelter used by early hunters (Fig. 1). After digging a fair sized area extending out a foot or so beyond the end of the projecting boulder that served as a roof, I had recovered 21 points and a perfect Stem knife, all well-defined. In size they were both large and small, and most of them had their tips broken off; only a few were perfect. They occurred all the way down to 12" below top of the soil. Throughout this deposit and down to a depth of 18" I recovered 2 or 3 quarts of calcined bone fragments probably derived from animals consumed for food during man's stay at this abode. I could find no explanation to account for the extreme depth of bone occurring 6" below the low depth at which artifacts appeared, since refuse pits were nonexistent except for a sterile one as hereafter noted. About 5 feet in front of the overhang appeared a pile of burned gneiss slabs, some of which were 2 feet across. This feature measured about 12" through from top to bottom of the stones, and it occurred to me that it might indicate where most of the cooking had been done. It seemed to suggest the remains of a central hearth located outside the shelter, which most likely had been made secure from the weather by tree limbs and the like, stacked against the overhanging boulder to produce a sort of lean-to. Beneath the overhang within the shelter occurred a feature that probably was a refuse pit. It had a 7" diameter and extended to about 7" in depth; was filled with a black pulverized substance, but without bone or stone debris. Lying over the pit and covering a few chunks of smoky quartz was a flat stone slab about 30 x 14 x 2" in size, apparently, intentionally placed; its purpose is open to speculation. Throughout the excavated area occurred many stone chips, of which a large portion were quartzite. This was as might be expected, since more than 70% of all recovered implements were of quartzite. Evidently, projectile points were made at the shelter to replace those broken during the hunt and discarded on the shelter floor.

By this time I had become a member of the Massachusetts Archaeological Society, and through reading their quarterly Bulletin became interested in learning more from my digging than I had been able to do without this sort of guidance. As a result, I decided to continue excavations just outside of the overhang and to note on each recovered artifact the depth in inches it lay, measured from top of the soil. It occurred to me that this would provide a test to determine whether or not a multic peace sequence existed. For by now I had become aware of certain diagnostic implement traits, which denote different culture periods, as outlined in the Massachusetts Archaeological Society Implement Classification, Bulletin, Vol. 25, #1.

In looking over the 22 recovered implements I had already excavated, I found them to fall within several Late Archaic projectile point categories. For instance, they included the following types: Small Triangular#3 and 4; Small Stem; Eared#2 and 4; Corner-removed#7; and Side-notched#1 and 5. Also, a Stem and Stemless knife were recovered, all of which I observed belonged to the Late Archaic stone bowl industrial age. After many more days of work an additional number of 12 recoveries were made: 10 points, also a Stemless and a Flake knife. They were recorded as to their depths, and are illustrated along with most of the other implements previously excavated (Fig. 2). An examination of these final recoveries show that their types are the same as those previously dug. Furthermore, they appeared at all levels down to 12" in depth, which seems to indicate the Late Archaics as being the chief occupants of the shelter over a long period of time, to judge from the 12" accumulation of fill. One piece of evidence, only, appeared as an exception to this concept. That was the occurrence of about 6 small potsherds of Stage 2 pottery in the first 3" of soil. Apparently, after the shelter perhaps had been abandoned by its original occupants, a small Stage 2 pot was broken there. This seems to indicate presence at that time of a few later-day hunters of the Ceramic Age including a woman, who would have been present as responsible for the pot. Since it was a Stage 2 pot of about A.D. 1,000, many years probably had elapsed from the days of Late Archaic occupancy.

**CONCLUSION**

At this comparatively small rock shelter, excavated evidence suggests its use as a hunting lodge by small groups of two or three men at a time. Its location close by the Arnold spring must have made it highly desirable. However, doubtless it served only as a transient abode, as it lies at least three miles distant from the end of a navigable water route, where the hunters' dugouts might have been moored, if they came by water. As already indicated, the shelter was used for probably a long span of years by the Late Archaics, who, during part of this time were the makers of stone bowls at nearby steatite quarries.
Artifacts in top frames were recovered at inch depths from top of soil as indicated.

Fig. 2. IMPLEMENT RECOVERIES, Arnold Spring Rock Shelter. 1, 9, 14, 25, Side-notched; 5, 3, 4, 20, 22, Small Stem; 5, 11, 26, 28, 29, Eared; 6, 8, 17, 19, Small Triangular; 4, 10, 27, Eared; 4, 13, 23, 24, Corner-removed; 15, Side-notched; 2, Stemless Knife; 12, Flake Knife; 30, Stem Knife.
Long after their industrial activity had ceased with the coming of pottery making, the shelter again may have been used infrequently by Ceramic hunters, who at one time may have brought along the whole family, as evidenced by the recovered potsherds. What became of the rest of the pot is something that has always troubled me. It may still be there nearby, as our excavation covered only a small area extending away from the shelter a distance of about 10 feet. With the sherds in the top 3" of soil appeared a Side-notched#5 point, which also could belong to the later Ceramic era, as it is a type that is known to overlap from the Archaic.

This dig has seemed worthwhile, if for no other reason than that it has provided a chance to exhibit many well-made projectile points of the Late Archaic, including several outstanding specimens of the eared type. Another thing of interest, it seems to me, is the similarity that exists between this rock shelter's recoveries and those from the Rattlesnake rock shelter in the Wickerboxet State Forest, as reported in October 1962, Society Bulletin, Vol. 24 #1. Prominent eared points are not only present at both shelters, but are usually made of the same quartzite material, with the Late Archaic having the most deposits. At the Rattlesnake shelter appeared limited evidence of the Early Archaic, which is absent at the Arnold Spring shelter. Evidently, with development of the Late Archaic came a population increase, and a corresponding accelerated use of natural facilities.

Greene, Rhode Island
April 28, 1967

FURNACE HILL BROOK SITE: A SALVAGE DIG

ARTHUR W. ADDICOR AND MORRIS MITCHELL

This report is presented by the above members of the Narragansett Archaeological Society of Rhode Island, who feel that actual credit for discovery of the site and the keeping of the notes and records should go to Arthur Waddicor. Mention should also be made of the enthusiastic support given by Steve Bessette, a junior member, who spent a number of cold winter days at the site assisting in the efforts to salvage bits of evidence before the blade of the bulldozer could destroy it. Acknowledgement and appreciation should also be expressed for the considered judgment and artistic illustrations provided by Dr. William S. Fowler, Research Director of the Narragansett Archaeological Society.

In the Oaklawn section of Cranston, Rhode Island, at the confluence of Meshanticut Brook, Furnace Hill Brook, and Church Brook appeared a curiously shaped wooded knoll, when it first was seen by us. It rose abruptly from the flat meadows like a haystack in the field, as it has been described by many. It seems that the area at one time supported a primitive population according to the statement of an acquaintance, who recalled as a boy successfully surface hunting for arrowheads the then cultivated fields, which extended along the brooks at the base of the knoll. These surface recoveries leave little doubt that in centuries passed aboriginal campsites were located here along the banks of the aforementioned brooks. The same favorable natural conditions that made this area desirable then are evident today: the protecting hills that surround the quarter mile wide, flat valley floor — hills that to the north and west are forestated and rise to a height of 300 feet, and to the east, 150 feet. They produce an unfailing source of drinking water, as was observed in the autumn of 1966, a drought year. At that time these brooks, although low, were flowing, still providing this necessary elixir of life (Fig.3).

The knoll is within easy hailing distance of any camp which might have existed below, and must have offered a good lookout from its top, from where an excellent view may be had in all directions. However, on the occasion of this dig the view to the south was not a pleasant one. An ugly slash of felled trees and raw earth indicated that the knoll, apparently was in the path of highway construction: Interstate Route 295.

When privately owned, the surrounding area was limited to surface hunting, but now more positive
action was necessary in view of the impending road construction. The first test pit, a hole no larger than four or five shovels full, exposed a half dozen quartz chips and the base of a side-notched projectile point of red chert. A half dozen more scattered test pits, all on top of the knoll, revealed in most every case...
worked chips of quartz, felsite, and argillite. The temptation to continue indiscriminate digging was great, but the potential of the site had been sufficiently established to warrant a more thorough excavation.

A telephone call and a visit to the Rhode Island State House in Providence revealed that the knoll was on State condemned land and would soon be destroyed by a "cloverleaf" with removal scheduled to take place in the spring. Formal permission to dig could not be obtained, but, instead, an understanding that — "you will move when the road-building equipment approaches" — was easily obtained.

At this time in the chain of events it was early October, 1966, when we three members joined forces with plans to make a lay-out and start to dig. Our sincere determination to excavate the site is evidenced by the fact that this work had to be done by necessity during the winter on weekends and holidays. Luckily, the winter weather was not too severe, and by leaving the oak leaf surface cover undisturbed and exposing only that which was to be immediately excavated, the work was able to continue. There were few lost weekends until spring, although occasional clearing of snow was necessary, and even temporary abandonment of the more exposed squares for sunny sheltered ones on the southeastern slope.

The occupational area to be excavated, as previously mentioned, lay on top of a small hill or knoll, roughly oval in shape, some 95 feet long, on an east-west axis, by 50 feet wide. The width was fairly level across the extreme west end, with the land sloping gently to the east in the middle of the knoll and then falling off rather steeply at the east end. The north, south and west banks were very steep, with the south bank rising sharply to a height of approximately 35 feet from the normally rushing brook directly below. This south bank showed exposed gravel with sparse brush and grass cover. The entire hilltop was covered with a growth of trees predominantly oak, from which a thick leaf cover had built up over the years. As far as could be determined this knoll had never been cultivated, but cumulative disturbances, both aboriginal and present-day youthful campers, with finally the highway construction crews, proved to be such as to hinder a scientific stratigraphic study. Nevertheless, the site was laid out in 6 foot grids from a baseline running north and south. Test holes had indicated the west end of the knoll as offering the most promise, so excavation was started at this end, progressing in an easterly direction. Squares were excavated by successive bench removal, the scraping being done with short handled hoes.

Excavation was carried down to the gravel floor, which varied from nil on the edges of the knoll to about 18" below Junction at the end of the eastern slope — Junction represents the line of demarcation dividing humus from subsoil.

Artifact distribution was confined mainly to within 2" either above or below Junction, with 85 percent of the recoveries appearing in this zone. Field recording was done on 6 x 6" cards, one for each square, with the horizontal location of artifact indicated. Also, depth of artifact was noted to the nearest inch, measured from Junction and from bottom of grass roots. This information was later transferred to a master chart, showing horizontal distribution and stratigraphic positions of artifacts. This controlled excavation continued for two months, during which time 14 squares had been dug. Then, suddenly, upon arrival one weekend a transformation was in evidence. During the week, road-building construction crews had shorn the knoll of brush and trees, leaving the area a picture of desolation. The beautiful wooded knoll had been transformed into a bald scarred hump (Fig.4).

With difficulty the previously laid-out squares under the jumble of brush and tree trunks were located, and work was resumed. The sawed-off tree stumps revealed by ring count that the former forest cover was 50 or 60 years old. Construction activity, consisting of the rooting out of stumps and removal of felled trees and brush by bulldozers the following week, further demolished the site. The pattern of stakes was obliterated and a deep swath to glacial gravel bisected the length of the occupational area. From this date on the dig became salvage only, with patches being worked here and there that had escaped surface destruction. On April 15, 1967, after twenty-four weeks of digging, the knoll that had been born of the Pleistocene bowed out to the destruction of the bulldozer in this supposedly progressive era.

In October, when the dig was started, the whole
area was a pleasant one. Birds congregated on their migratory path southward. The brook gurgled and rushed by, and tracks of animals were in evidence in the sand and mud along the edges of the waterway. Birches and maples overhung its banks making it a place of natural beauty. In April the whole picture had changed. Birds were once again returning, but there seemed to be in their actions a note of sadness at what they found. The brook had been blocked by construction and its entire course was changed. All the trees had been sawed off and pushed into the water, and to us it seemed as though an old friend had been silenced.

Twenty-five 6 foot squares, an area of 900 square feet, or approximately 30 percent of the available area had been dug. Of the artifacts, 82 recordable ones had been recovered as well as several bushels of water-worn cobbles, apparently carried up from the brook below, many with at least one surface sheared flat as if to observe grain and cleavage, or perhaps to serve some other useful purpose by the ancient inhabitants of the site. Many chips of quartz, felsite, and argillite, also worked fragments of soapstone, bits of graphite, small ceramic potsherds, and a few pieces of quahog shell were among the material evidence recovered. The only occupational features uncovered were two fire or refuse pits, and a workshop area seemingly devoted exclusively to working white quartz. The pits were without stones and contained but little remaining charcoal, while scattered throughout the site were numerous firestones. The workshop was an area oc-
cupping two squares, in which there was an accumulation of hundreds of white quartz chips and a few larger pieces of material, probably cores.

**RECOVERED ARTIFACTS**

As was pointed out earlier in this report, about 85 percent of the recoveries were found at or near Junction. In relation to the size of the site, recoveries seem to represent a rather heavy concentration of evidence. All artifacts were carefully analyzed and catalogued in accordance with the Massachusetts Archaeological Society's—*Classification of Stone Implements of the Northeast*—Bulletin, Vol. 25, #1. Enumeration of artifact recoveries follows.

*Projectile Points* — (Fig. 5).

<table>
<thead>
<tr>
<th>Small Stem</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Triangular#4</td>
<td>5</td>
</tr>
<tr>
<td>Small Triangular#5</td>
<td>7</td>
</tr>
<tr>
<td>Large Triangular</td>
<td>2</td>
</tr>
<tr>
<td>Eared#2</td>
<td>2</td>
</tr>
<tr>
<td>Adena</td>
<td>1</td>
</tr>
</tbody>
</table>

*Miscellaneous Artifacts* — (Fig. 5).

| Stemless Knife               | 2  |
| Stem Knife                   | 1  |
| Flake Knife                  | 1  |
| Hammerstone                  | 5  |
| Worked Graphite              | 2  |
| Flake Scraper                | 8  |
| Semifinished Pendant         | 1  |

*Stone Bowl Industrial Tools and Products* — (Fig. 6).

| Abrading-stone               | 2  |
| Abrading-scraper             | 2  |
| Worked Graphite              | 1  |
| Hand Spade                   | 1  |
| Steatite Cup (semifinished - broken end) | 1 |
| Steatite Bowl fragment       | 1  |

**CONCLUSION**

There is no doubt that this site provided an ideal living area, protected as it was from frigid winds by the surrounding hills towards the north, east and west, while in the hot summer months it was open to the prevailing southerly winds. The top of the knoll must have been a pleasant place to work, as it was high above the water with ever-present breezes to eliminate possible mosquito pests. Of greater consideration was the lookout the hilltop afforded, for from this vantage point the entire valley and water approaches could be viewed. At the base of the knoll at confluence of the three streams it is not impossible to assume that canoes were left and trips continued afoot. Such canoeists doubtless would have paddled upstream from as far away as Narragansett Bay to work or trade at the steatite stone bowl quarry, which lay only a short distance from the site up the swift flowing Furnace Hill brook, as may be seen by reference to site map (Fig. 3).

As previously pointed out, this was a disturbed site, and the limited number of squares dug before it became a salvage dig makes it impractical to attempt to present the recovered material from a stratigraphic point of view. However, treated typologically it would seem that there is some worthwhile evidence to report. After studying the recoveries and checking them carefully with the *Classification of Stone Implements of the Northeast*, it appears that there is an overlapping of Late Archaic artifacts with those of the first part of the Ceramic Age. Proof of this lies in the number of Small Triangular#4 points—with their more or less convex lateral sides—of the Late Archaic, which were mixed with Small Triangular#5 points—with straight to convex lateral sides—of the Ceramic, along with 2 Large Triangular points of this era. Also, 14 Small Stem points, considered to belong to both ages were mixed throughout the depth of the excavated soil. The few recovered potsherds are too small to determine the size of pots or culture stage to which they belong, although they are seen to be quite thin with a cord-marked surface, and have vegetable temper.

Perhaps the most important recoveries are those relating to the Oaklawn stone bowl quarry: 2 End picks, 2 Abrading-scrapers, 1 Shaver—all of white quartz, 1 Hand spade, and 1 Stem spade. It is also worthwhile to point out that 1 Abrading-stone and 1 Flake scraper of translucent quartz crystal were recovered (Fig. 6, #8, 9). The significance of their presence lies in the fact that at the Oaklawn quarry, which occurs only a mile up stream, was uncovered a workshop of the identical quartz crystal from which the Furnace Hill Brook crystal tools were probably made. A trip was arranged to the quarry to review first hand this deposit of quartz crystal, and after a careful check, there can no longer be any doubt that the material for the site tools was obtained at the quarry—3 quarry-recovered tools made of this crystal are illustrated (Fig. 6, #10-12). A more comprehensive study of this crystal tool evidence may be had by reference to the Massachusetts Archaeological Society Bulletin, Vol. 29, #1, —*Oaklawn Quarry: Stone Bowl and Pipe-Making*. This tool style and stone material similarity at both quarry and campsite is very noticeable as herein displayed, with the two groups illustrated side by side (Fig. 6). These, together with the other aforementioned tools suggest contact of some kind with the Oaklawn quarry. Furthermore, in addition to these tools the 3 large steatite fragments of semifinished stone bowls, definitely identified as Oaklawn quarry material, besides a number of other stone bowl fragments seem to indicate that stone bowl finishing was taking place at the Furnace Hill Brook site. Finally, the potsherds and affili-
ated Ceramic implement traits show that occupation of the site continued into the early part of the Ceramic Age.

An interesting recovery that should not be passed over without comment is the quartzite point as illustrated (Fig. 5, #23). This projectile point was tentatively classified in the field as a Corner-removed of the Early Archaic, which made it a presumed intrusive element from this earlier age. As such, it defied explanation because of its appearance at this Late Archaic and Ceramic site. After considerable study and careful comparison, it was determined that because of its wide rounded base it probably is an Adena spear point. Justifiably, the transitional period
between the final years of the Stone Bowl era (Late Archaic) and the early part of the Ceramic, as suggested for this site by virtue of its artifacts, agrees with the generally accepted period of arrival of Adena migrants into these parts. The influence of these newcomers is to be found in reports of the Narragansett Archaeological Society, the Flat River Site; and the Oaklawn Quarry report, previously referred to.

In the latter report on pages 14-15 the question is posed as to where the quarriers lived. Evidence as reported from the Furnace Hill Brook site now tends to partly answer this question. Recoveries at the site suggest that here was one camping place where some of the quarriers lived, while working at the quarry. No doubt there were others in the low-lying areas up and down the several brooks nearby, where other quarriers may have lived while cutting out the stone at the quarry for their variously shaped bowls.

Providence, R. I.
February 20, 1968

**CHURCH BROOK ROCK SHELTER NO. 1**

**ARTHUR WADDICOR**

The following is a report of the excavation of Rock Shelter No. 1 of the Church Brook area. It is the first to be excavated of a number of such glacial rock formations in this location, showing evidence of aboriginal occupation. Church Brook, or Cross Brook, as it was called, until a rural congregation built a small wooden church near the brook, which lies in the Oaklawn section of Cranston, Rhode Island, flows down from the wooded hills of western Cranston in a general southeasterly direction. It joins the Meshanticut and Furnace Hill Brooks in the flat land below, to become a navigable canoe waterway to the Pawtuxet River and thence to Narragansett Bay (Fig. 3). Northwest of this confluence, approximately a half mile upstream, Church Brook flows through a dense wooden ravine, on the north side of which a present-day extensive gravel operation has completely altered the natural features of the land. However, the southerly side of the stream remains as undeveloped today as in ages passed. This is undoubtedly due to the rugged, hilly nature of the terrain with its scattered deposits of large glacial boulders in spectacular groupings. It is an area of perhaps five or six acres with an interesting variety of natural features, of which a dominant one is Church Brook, a clear, large fast-flowing stream that has carved out over the years a boulder-filled bed in the valley. Rising sharply from stream level the terrain reaches an elevation of 50 or 60 feet, then levels off. On this upper level, an area supporting a growth of cedar, juniper and hickory, there is a spring-fed swamp. Out of this flows a small brook that winds its way down to join the larger Church Brook below. This small brook, only a few hundred feet from its source, flows by an unusual group of massive glacial boulders, the two largest of which form a wide triangular opening to the south, with a third smaller one balanced on top (Fig. 7). Here was a site apparently with the essential living features required by primitive man. Within the triangular opening appeared a level dry floor, measuring 12 feet across its front and 10 feet in depth. Its outside frontal approach sloped down to the small spring-fed brook only 12 to 15 feet away. The area was clear except for two flat rocks appearing just above ground in front, and a few fair sized hickory trees.

To support the belief that this shelter had indeed once been occupied by Stone Age man, a test pit was dug within the shelter area. The spot chosen was beneath the overhang of a slab of rock that in ages past had spilled off the vertical shelter wall and lay partially buried in an oblique position. It was a rather awkward spot to dig, but because of this seemed most likely to have escaped casual plundering. At Junction, or bottom of humus, a few white quartz chips appeared, and 4" below in the yellow subsoil a perfect white quartz Small Triangular#3 point. Enlarging the hole somewhat at the full depth
reached, a second white quartz worked stone was found; but this time only a semi-finished blank. Noting depth and location so that these recoveries could be incorporated in a grid pattern at a future date, the test hole was refilled and site abandoned until such time as weather might permit a thorough investigation.

It should be explained at this point that this site discovery came at a time when the Furnace Hill Brook site was being excavated, which continued through the winter months of 1966-67 with but few lost weekends. However, on Sunday, March 11, 1967, an overnight low temperature had frozen the surface of this exposed hilltop site and so had rendered it unworkable. Rather than lose an otherwise ideal digging day, an exploratory hike up the sheltered valley of Church Brook was undertaken with the previously described fortunate results — of the locating of probable rock shelters.

It was November 16, 1967 before work on Shelter No. 1 was started. A line due north and south was first established from the apex of the triangular inner shelter area, extending 24 feet to a hickory tree at the edge of the small brook nearby. Parallel lines at 4 foot intervals were laid out each side of this central line, while a series of squares similarly spaced east and west of it completed the grid layout. The squares were staked and numbered, and a field record of recovered artifacts from each square was maintained. This data was at a later date transferred to file cards, and finally to a master chart showing the vertical, horizontal, and typological distribution of the recoveries. In the outline drawing (Fig. 8) each dot indicates location of a recovery, shown in the respective square where found. The initial test pit, open hearth, and natural features such as shelter...
Fig. 8. OUTLINE MAP OF EXCAVATION, Church Brook Rock Shelter No. 1.
walls, immovable rocks, trees, and small spring-fed brook are included, providing a graphic display of their relationships.

Excavation was carried to about an 18" depth wherever possible; the square near the brook could not be dug that deep because of water seepage. Actually, recoveries were made no deeper than 10", which appeared to be the lowest level of occupation. Artifacts were quite evenly distributed from 4" below Junction on up into the humus, with no apparent concentration at any particular level. Digging was difficult and progress slow due to a mass of surface roots and large rock spalls, which had become dislodged from shelter walls through the years by frost erosion. These had become mixed with the roots and soil of the shelter floor. A short handled hoe, an ax, and pruning shears were the primary tools used, while rubber gloves became a necessity for protection from semi-dormant poison ivy roots. The convenient proximity of the small brook in front of the shelter provided an easy means for cleaning artifact recoveries. And here on one of these occasions, excitement developed over the finding of a white quartz Small triangular point lying in the bed of the brook.

The open hearth—no artifacts were present—appeared at the left-hand side of the shelter entrance above Junction in the humus, with its depth extending to 5" below Junction. It contained only a few fire-burned stones, but had much charcoal. Apparently, its heat had discolored the yellow subsoil a few inches below and around the charcoal.

When the dig was completed, 26 complete or partial squares had been dug covering an approximate area of 275 square feet, while 29 artifacts had been recovered, and one feature identified: an open hearth. Throughout the site firestones were scattered, as well as charcoal flecks mixed among numerous white quartz chips and a quartzite core. Numerous fragments of animal bones were uncovered high in the humus, and a kaolin pipe stem appeared just below the leaf cover, the latter indicating white occupancy by some later-day intruder.

Artifact recoveries were carefully analyzed and classified, following the classification system of the Massachusetts Archaeological Society; representative specimens are illustrated (Fig. 9).

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Recovered Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Triangular Point</td>
<td>3</td>
</tr>
<tr>
<td>Small Triangular #3 Point</td>
<td>1</td>
</tr>
<tr>
<td>Small Triangular #4 Point</td>
<td>2</td>
</tr>
<tr>
<td>Small Triangular #5 Point</td>
<td>1</td>
</tr>
<tr>
<td>Flake Knife</td>
<td>2</td>
</tr>
<tr>
<td>Stem Knife</td>
<td>1</td>
</tr>
<tr>
<td>Stemless Knife</td>
<td>2</td>
</tr>
<tr>
<td>Chunky Knife</td>
<td>1</td>
</tr>
<tr>
<td>Small Triangular #6 Point</td>
<td>2</td>
</tr>
<tr>
<td>Eared #2 Point</td>
<td>1</td>
</tr>
<tr>
<td>Triangular Blanks</td>
<td>3</td>
</tr>
<tr>
<td>Stem Scraper</td>
<td>3</td>
</tr>
<tr>
<td>Flake Scraper</td>
<td>1</td>
</tr>
<tr>
<td>Stem Spade</td>
<td>1</td>
</tr>
<tr>
<td>Hammerstone</td>
<td>2</td>
</tr>
</tbody>
</table>

Stone chips of quartz, quartzite, felsite — (95% white quartz).

CONCLUSION

Absence of shell refuse, stone or ceramic vessel fragments, and usual home camp litter, but instead, presence of artifacts within the shelter area, used for hunting activities, suggests that this was not the abode of family groups, but rather that of transient occupants. With exception of the kaolin pipe stem—an 18th or 19th century intrusion—an examination of the recovered artifacts, as listed, discloses that without doubt they are the tools of hunters.

Projectile points, as a group, represent more than half the recoveries. This of course is typical of most sites and subsequently has been relied upon for cultural diagnosis. With this thought in mind, the projectile point recoveries were carefully checked and found to be a composite of the last of the Late Archaic and part of the Ceramic ages.

Furnace Hill Brook site, recently excavated, because of its close proximity naturally invited comparison, to see if the two were in any way connected. An examination of recoveries from both sites reveals similar high quality of workmanship, and a high incidence of white quartz as well. Since this can be said of most Rhode Island sites, little significance can be attached to it here. However, at Shelter No. 1 native felsite appears in but one point, while at Furnace Hill its incidence holds second place. Two artifacts made of exotic materials are present at Shelter No. 1: a Stem knife, presumably of Hudson Valley flint, and one Corner-notched point of felsite with a probable Pennsylvania provenience. Total absence of Small Stem points should be noted, especially as they are the dominant type at the Furnace Hill Brook site. All evidence seems to indicate that the two sites, although coeval, had no apparent association.

In this investigation, next a possible link with the Oaklawn stone bowl quarry, less than a mile away, was given consideration, but with negative results. Careful inspection of all lithic materials failed to reveal any trace of steatite, chlorite, or clear crystal quartz, all of which have their source at the quarry, whereas this evidence was found at Furnace Hill.

To summarize the evidence at hand, it appears that here was a rock shelter large enough to accommodate perhaps a half dozen hunters, and one that could easily have been further improved with a roof of hides, if the natural rock overhang had failed to provide sufficient overhead protection. The small

spring-fed brook nearby afforded a convenient source for drinking water, and also may have attracted deer and other game for a concealed hunter in the shelter to get a close shot at. The forest cover and the southern exposure made this site a snug refuge, as was found to be the case by the diggers during the cold winter months of excavation. Here, aboriginal shelter occupants had fire for cooking and warmth from the open hearth in the entrance, and probably used the low flat topped rock in front of the living area as their table or workbench. In fact, a Stemless quartzite knife was recovered wedged alongside this rock in a position that suggests it had been accidentally dropped, and had become lost at its base. That spare moments of shelter occupants were occupied in fashioning new tools is apparent from the Hammerstones left behind, along with the accumulated stone chips within the living area.

Vertical distribution of artifacts from a depth of
HAFTING ATLATL WEIGHTS

4" below Junction and up into the humus, with no apparent specific culture horizon noted, indicates that this was probably a stop-over camp, known and used over a long span of time. Evidently, judging from the types of projectile points left behind, the period of occupancy extended from close of the Late Archaic on into mid Ceramic times. Undoubtedly, its transient hunters were well acquainted with the area and its several rock shelters, which were used repeatedly over many years.

Grateful acknowledgement of digging assistance rendered goes to Morris Mitchell, a Society member, who toiled through the winter months at the site, and later assisted in evaluation of the evidence as presented. Also, thanks go to William S. Fowler, for his illustrations of artifacts and the drawing of the shelter. As Research Director of the Narragansett Archaeological Society, he appraised the recovered artifacts, and after inspecting the entire Church Brook area with its several shelters, urged further work in excavating other potential shelter sites in the vicinity.

Providence, R. I.
June 11, 1968

HAFTING ATLATL WEIGHTS

WILLIAM S. FOWLER

This report deals with types of stone artifacts formerly referred to as Bannerstones. More recently, they have been identified as atlatl weights, or stones believed to have been attached to the atlatl, or throwing stick that was used to eject the spear. Society Bulletin, Vol. 25, No. 1, p. 15, “Classification of Stone Implements of the Northeast,” illustrates and describes four different types, and gives their probable culture affiliations. However, it does not furnish full information concerning how these weights were attached to the atlatl. Supplementing this former report, it is the intent of this paper to go into more detail in describing the probable methods of hafting.

As a result of actual hafting experiments conducted by the writer, the significance of certain characteristics, commonly associated with those weight types that were perforated, have become better understood, as well as knowledge gained from the positioning of these weights on the atlatl. The latter has especial import in the case of the Wing and Whaletail types, for instance, indicating in which direction the wing or tail spread faced, as related to the handle end of the throwing stick.

First, with further reference to the Wing and Whaletail types, it was noted that invariably, the usual ¾" diameter hole that perforated the weight from top to bottom of the wing spread was slightly larger at the top, tapering to a smaller diameter at the bottom. Therefore, if the hole was made with the intent of providing the means of attaching the weight to the throwing stick, as all indications seem to suggest, then it must have been slipped onto the stick at the smaller hook end with the larger perforated diameter coming first. In our experiment, as the weight was pushed up the stick toward the enlarged handle end, the taper of the hole was found to provide a snug fit for the weight at some spot between handle and hook. Evidently, it was intended to stay in a fixed position, when the thrust ejecting the spear was made, and although wedged firmly on the stick by virtue of its tapered hole, also may have been lashed with thongs as a precautionary measure. A significant observation to be made from this investigation, it would seem, is that the weight was positioned so that its wings would cut the air like those of a bird or butterfly, with the forward thrust of the arm when ejecting the spear.

The Wing type occurs occasionally with a surface groove on one face running from top to bottom, in place of a perforation. Doubtless, this served as a support for the throwing stick, which lay in the groove, while thongs, alone, bound the weight tightly in place. The Bow Tie weight is another style, which, also, must have been bound to the stick, since it is not perforated.
Perhaps the most interesting discovery came, when attempts were made to haft the Oval atlatl weight, which is perforated lengthwise with a hole about 3/8" in diameter. This type of weight is more or less oval in shape and is quite thick through the middle. However, apparently with an intent to reduce this thickness, these weights were intentionally either grooved lengthwise on one face, or, as in most cases, were flattened with a longitudinal expanded groove reaching nearly across one side. The significance of this modification, in which the thickness of material between the perforation and the outside face of the weight on one side was reduced to thin proportions, became apparent during the hafting experiment.

As with Wing weights, perforation of the Oval type has a slightly greater diameter at one end than at the other. This allows the weight to be slipped onto the throwing stick at its smaller hook end, the enlarged end of its hole coming first. As the diameter of the stick gradually increases toward the handle end, the weight comes to rest at a spot somewhere between handle and hook, and is wedged in place by virtue of the graduated taper of its hole. Right here is where its positioning becomes a problem. It was found by tests that the two forefingers of the hand holding the handle, when reaching up to grasp the spear shaft with its end in place in the hook of the stick, were only able to do so, when the flattened side of the weight was facing up toward the shaft. Had the oval shape of the weight been left without flattening on one side, the bulk of the stone would have prevented contact of forefingers with shaft. This was proven by tests made with the convex side of the weight opposite its flattened side facing up, which prevented the shaft from reaching the fingers.

A good idea may be obtained of how the atlatl and spear were held just before ejection of the shaft, from a sketch made of a native spearing fish (Fig.10). While the throwing stick in this case has no stone weight attached, the act of spear throwing is the same. One hand performs the entire operation, with its two forefingers grasping the shaft to steady it before it is ejected. A glance at the photo will suffice to show that the space between shaft and throwing stick is limited. This condition is what has been referred to in the text, as restricting the thickness of the stone weight between perforation and its top face, whenever it was used. It is obvious from the sketch that this native does not use the atlatl weight, which recoveries here indicate was in use.
HAFTING ATLATL WEIGHTS

during Archaic times in the Northeast. However, even in those days, it was doubtless a matter of choice whether or not it was used.

In conclusion, this experiment appears to establish the probable function of the Oval artifact referred to as an atlatl weight, in which its flattened face was deliberately worked, so that it would not interfere with the operation of ejecting the spear. If this is so, then the Wing weights, et al., also, probably were used on the atlatl in a similar way. However, their faces did not need grooving or flattening, since the area between the wings was naturally thin because of the intrinsic shape of these weights.

On several occasions the Oval weight has occurred stratigraphically at sites in the Narragansett Bay drainage in such a way as to suggest that it belongs to the Early Archaic period, and so precedes the Wing type, which has appeared in the Late Archaic horizon. Furthermore, and that which seems even more convincing, no Oval weight has ever been reported appearing in Stone Bowl quarries of the next cultural Late Archaic period, although the Wing weight has. A well defined and polished specimen of the latter occurred in the tailings at the Bagged Mountain quarry in Connecticut, Bulletin of the Arch. Soc. of Conn., No. 25. This find is proof that the Wing weight definitely belongs to the industrial age of the Late Archaic. And because of this recovery, if for no other reason, the Wing type appears as a replacement of the earlier Oval weight, brought in by arrival of a new tradition that occupied the area; there seems to be no intermediate styling to indicate an evolutionary development, in which the Wing weight might have emerged from the Oval type.

Attleboro, Mass.
August 18, 1966

IN MEMORIAM

With the passing of Karl S. Dodge, the Society lost another of its fast diminishing number of Charter Members. Karl was among the small group of twenty-nine, who gathered at Andover in 1939 to found the Society. There are now only thirteen active in the Society.

In the spring of 1940 when the first Chapter (Warren King Moorehead) was organized, Karl was among the members. He took an active part in that Chapter and in the several “digs” (Faulkner Spring, Ford, and Titicut), which that Chapter carried out.

Karl was also one of the founders of the Cohannet Chapter, and participated in the excavation at Fort Hill and Assawompsett Lake. Later, he was a member of the W. Elmer Ekblaw Chapter and was the director of excavation at the Oakholm site.

A number of articles from his pen have appeared in the Bulletin, the last being “The Oakholm Site,” which was published in Society Bulletin, Vol. 28, #2 in 1967. There was hardly a meeting of the Cohannet Chapter from which Karl Dodge was absent, and we shall miss him greatly as will his digging companions at the Oakholm site.