S A I N T L O U I S

HURON INDIAN VILLAGE AND JESUIT MISSION SITE

Wilfrid Jury

and

Elsie McLeod Jury

Museum Bulletin no. 10

Museum of Indian Archaeology
The University of Western Ontario
London, Ontario

1955

Price $1.00

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To

Father Bechard. With a memory of a pleasant stay at the mission and the good time we had exploring the site of St Ignace IV. dd. 1956 —

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ILLUSTRATIONS

ACKNOWLEDGEMENTS

The examination of the site of Saint Louis was carried on chiefly by the students of the University of Western Ontario Summer School of Indian Archaeology. Staff assistants were Mr. Paul Buchanan, Miss Mary Bowley, Mr. Fred Fleming and Miss Therese Wintermeyer. We gratefully acknowledge the assistance of Professor G. Harold Reavely of the Department of Geology, The University of Western Ontario, both in the progress of the excavation and in the preparation of this report. Mr. John Shortreed, Superintendent of Buildings of the University of Western Ontario, surveyed the site in 1951.

FORWARD

More than thirty years ago the Government of Canada, acting upon a resolution of the Historic Sites and Monuments Board, erected a cairn and tablet on the farm of Charles L. Newton, in Tay Township, Simcoe County, marking the location of a destroyed Huron village.

It was believed by archaeologists of the time to be either St. Louis or St. Ignace II, which had been Jesuit mission stations prior to their destruction by Iroquois invaders in 1649. Evidence, however, was so meagre that positive identification was not possible and so the inscription on the tablet read simply "either St. Louis or St. Ignace", leaving to the future a more definite statement.

During the later 1930's careful search for the location of St. Ignace II was made by several archaeologists, amateur and professional, and by 1938 it had been definitely established that St. Ignace had been on the Hamilton farm, the west half of lot 6, concession IX, Tay Township. The outbreak of war in 1939 prevented any immediate exploration of the site and it was not until 1946 that excavations were made. These were conducted by Mr. Wilfrid Jury, archaeologist of the University of Western Ontario, at London. When his work was completed he had located the outlines of twenty-seven buildings to add to the two which had been located by Mr. W.J. Wintemberg, of the National Museum at Ottawa, in 1938. Of special importance was the finding of the outline of a larger building, showing European influence, which is believed to have been a church.

A full account of the search for St. Ignace and of the excavations subsequently conducted there may be found in Dr. William Sherwood Fox's "St. Ignace, Canadian altar of martyrdom" (Toronto, 1949).

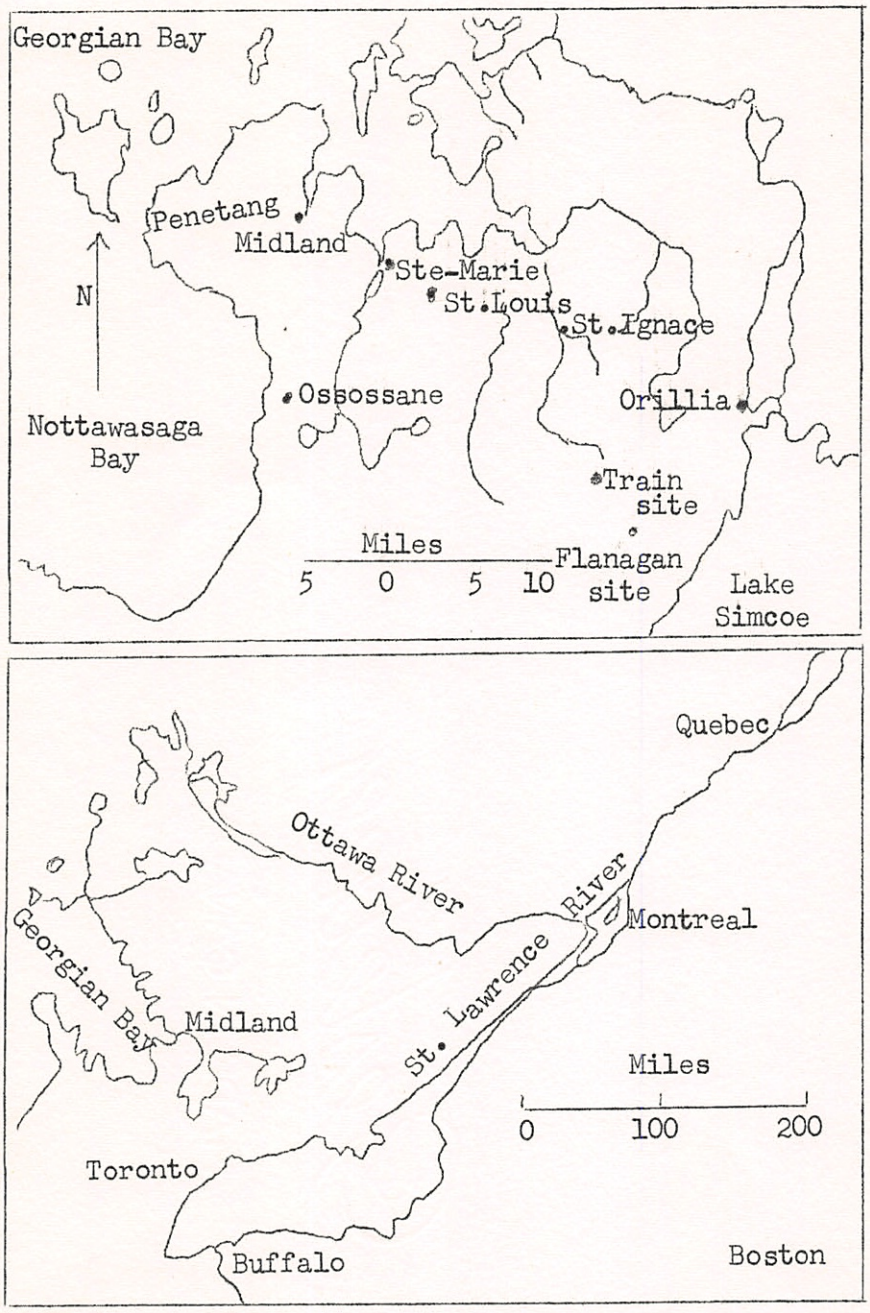
When the location of St. Ignace had been identified and explored attention could be given to the site which had been marked in an uncertain way at an earlier date. Mr. Jury was again in charge and during the summers of 1951, 1952, and 1953, with a technical staff of three and students of the University of Western Ontario

School of Archaeology, the site was thoroughly examined. Mr. Jury's findings are set forth in this report.

The uncertainty having thus been removed with regard to the identity of the site on the former Newton farm (today owned by Mr. Edom Wilson), the Historic Sites and Monuments Board has approved the removal of the earlier tablet and will replace it by a new tablet identifying the location as that of St. Louis.

Fred Landon, Chairman

Historic Sites and Monument Board of Canada.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Toronto
Buffalo
Boston

INTRODUCTION

The site of Saint Louis is located on lot 11, concession 6, Tay Township, Simcoe County, Ontario. It is situated on the banks of the Hogg River, a winding stream that empties into Georgian Bay at the village of Victoria Harbour.

The property is owned by Mr. Edom Wilson, R.R. #1, Victoria Harbour, who kindly gave permission to the University of Western Ontario to explore the area. Permission was granted also by the Historic Sites and Monuments Board of Canada, who own a portion of the property.

The examination of the site was under the supervision of Wilfrid Jury with the help of a technical staff of three and the students of the University of Western Ontario Summer School of Indian Archaeology working over a period of three summer, 1951, 1952, and 1953. The preliminary classification and count of specimens were made as the work was in progress, followed by a closer study at the University Museum.

Saint Louis was the Huron Indian village where the Jesuit missionaries, Jean de Brébeuf and Gabriel Lalemant, were captured by the Iroquois, previous to their death in the neighbouring village of Saint Ignace on March 16, 1649.

Saint Louis, like Saint Ignace, was a village lived in by the last of the Huron nation who for a period of thirty years and more had been closely connected with Europeans in trade and war. The people of the village were friendly to the Jesuits and some were converts. White men mingled with them daily.

For many years the locations of Saint Louis and Saint Ignace were unknown, although the Hogg River site has been considered one of the two historic sites since settlement first began in the district.

A description of the site in 1899 was given by Andrew Hunter, Simcoe County historian. "This ground", he wrote, "is covered with ash beds and blackened soil, mixed with relics. The latter consist of iron tomahawks, knives, pieces of metal probably cut out of worn-out brass kettles, and pottery fragments in endless quantities. All these relics show that the site was one of those occupied down to the very latest period of the Huron occupation of the district. There are empty caches at the site, and a pottery just south of it, where the clay is of good quality for plastic work.... What appears to have been the 'village corn

patch' occurs near the house of Wm. Bennett, on lot 10, and it may have extended as far north as the site itself, though the cultivated ground no longer shows any traces of corn hills...."

"The plot of ground, in the bend of the river has been called the 'Jesuits' Field' for many years, but by whom it was so named, is not known to Mr. Newton."[1] A drawing of the site at that time shows numerous circular ash pits completely covering the area that has proven to be the village enclosure. Hunter has surrounded the area by a palisade which was apparently in evidence at that time.

The first owner of the property was the late Charles E. Newton who appreciated the historical significance of the district. A collection of surface finds was donated by him to the Provincial Museum, now incorporated with the Royal Ontario Museum, Toronto.

In 1923 Mr. Newton donated a square plot of land near the river to the Historic Sites and Monuments Board of Canada, who erected there a cairn with the following inscription:

> Site of a palisaded Huron
> Village and Jesuit Mission
> (Either Saint Louis or Saint Ignace II)
> The Destruction of Both
> Villages by the Iroquois foe
> 16th and 17th March, 1649
> sealed the fate of the Huron
> Nation. Jean de Brebeuf and
> Gabriel Lalemant, missionaries,
> captured at Saint Louis, were,
> after frightful tortures, killed
> at Saint Ignace II.

A roadway was opened through the field to the government plot and the Historic Sites and Monuments Board care for the upkeep of the roadway and the plot that surrounds the cairn.

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[1] Hunter, 1899, pp. 66-7.

EXPLORATORY EXAMINATION

On May 1, 1951 we visited the site and for some days following, a general survey of the area was made. Vegetation had not yet set in and the natural features of the terrain were visible. The area under study consisted of a plateau which sloped gradually from north-east to south-west. It is bounded on the east and north by a sweeping curve in the Hogg River; on the east, steep banks fall to the river's edge, while on the north the slope is gradual with two terraces.

To the west is a spring and a 5 to 7 foot bank of a former stream that is now a small trickle of water. Only in the south-west was the site unprotected by a natural bank of gully.

The slopes of the river bank are heavily wooded with cedar, elm, and white birch, with a few maple on the higher land; there is also some basswood. A strip of land on the east has been reforested with jack pine, otherwise the field is clear and at present in use as a pasture, producing short grass, mullens, Canadian thistle, and other weeds. Vegetation in the district has not altered in the past 300 years. The higher land at that time was forested with oak, maple, birch, elm, and pine. The lower banks and the valley of the Hogg which in places widens to a marshy morass, produced saplings, and cedars and tamarac.

Although the field was rough and pitted, there was no evidence of artificial mounds or building foundations on the surface, except along the edge of the river bank to the east where a rise in the ground, with elevation from 8 to 10 inches, extended for 50 feet, and to the north, where a similar elevation extended for 15 feet. In the centre of the field there was a natural rise with an elevation of 2 to 3 feet. On this ridge two large stones approximately 3 feet in diameter were embedded in the soil. These were the only stones in the field other than pebbles.

The soil of the plateau was typical of the area with top soil of sandy loam to an average depth of 2 feet; loam mixed with gravel to an average depth of 6 feet, and a clay base. The soil is soft in nature, ideal for cultivation with

primitive tools. It is still productive of corn. The field had been ploughed for over half a century so that it was completely disturbed to a ploughed depth of 9 inches. No buildings have been erected on the site by early settlers.

The banks of the Hogg river on the east of the site average 50 feet in height. At the water's edge potsherds and broken stone artifacts were noted. Initial testing began at the base of this hill, working upward. Village debris occurred to a 4-inch level at the base, deepening to 5 feet at the top of the bank.

Five-foot trenches were opened transversely to the brow of the bank at 50-foot intervals, in 8 of which post moulds appeared as grayish circles that extended 18 inches to 2 feet into the soil. Their placement was in line with the bank.

In preparation for the Summer School the field was gridded into 100-foot squares marked by permanent posts, the southwest corner of the government cairn being the permanent station. The north and south extent of the map represents 1000 feet; the east and west, 800 feet. The palisaded village site was found to be included within its compass.

EXCAVATIONS - 1951

When the school commenced on July 2nd, squares G 2, H 3, H 4, were subdivided into 10-foot blocks. These squares were chosen for examination because testing had revealed evidence of house sites. The soil below the plow depth was replete with ash and camp refuse, potsherds, bone and fish remains.

The sod was removed by shovel and each 10-foot unit was then examined by two and three students working under supervision. The soil was scraped by trowels from 18-inch ledges in approximately two-inch levels, to an undisturbed stratum. Thus, fire pits, post mould patterns and other features could be studied both on a horizontal plane and in vertical profile. Records of

depth and association were kept on specimens and on special features. Black and white, and Kodachrome photography also recorded specimens and features. When middens were being examined the back-dirt was searched for fragmental evidence, often by screening. Because of the extensive digging that had been carried on previously at the site, much of our material evidence has consisted of fragmental bone and shell, seeds, carbonized food grains, beads, stone chippings, metal cuttings and shattered fire stones.

The site has long been known to be of the late contact period, 1630-1650. It was established by testing to sterile subsoil in various sections that it had not been formerly occupied by Hurons or any earlier peoples.

The natural stratification of the soil was seriously disturbed by earlier diggers, and by cultivation. Over extensive areas clay pockets were intermixed with the upper soils. Camp refuse was found at a depth of 10 inches to 3 feet, the deeper deposits being caused by pioneer farmers levelling the field by dragging with heavy timbers, thus depositing upper soils into the depressions. A small area 2 and 3 feet wide that extended 30 feet along the fence that enclosed the government plot was undisturbed. There, the blackened soil extended to a depth of 12 to 14 inches followed by a layer of ash 4 to 6 inches deep, under which was a band of white letched sand. This was, in general, the soil condition in undisturbed sections of house sites.

In 1951 house sites 1, 2 and 3, and 2 refuse pits were examined. Usual camp debris and post moulds occurred in the house sites. An unusual feature in house site 3 was the presence of 20 to 30 nails, and some broken or corroded parts of nails. There were also two iron staples. The nails were hand made, square-cut, iron, of the type found at Sainte Marie[2] and at the Train Site.[3] Otherwise the

[2]Jury and Jury, 1954, Plate XI b.

[3]The Train Site is a late Huron site near Hillsdale, Medonte Township, Simcoe County, believed to be the location of Teanaostaiae, or Saint Joseph, destroyed by Iroquois July 4, 1648. The University of Western Ontario carried on a preliminary examination of the site in 1947.

food refuse, artifacts and house construction of house site 3 was similar to other house sites examined on the site. The nails were found at a shallow depth throughout the length of the house site.

Refuse pit I was located on the river bank to the east; refuse pit II was to the west, on the bank of a former stream bed, near the spring, that had been the source of drinking water for the village. The deep ash deposit on the bank extended to and around the spring, a condition that exists in some Huron villages, suggesting that ashes were carried there and distributed over the area possibly with a view to maintaining sanitary conditions in the vicinity of the drinking water.

It was in refuse pit II near the spring that the greater proportion of artifacts were found, chiefly because amateur diggers had been discouraged by a large poplar tree whose roots spread over the bank. After carefully severing the roots, a tedious and laborious task, we were rewarded by the discovery of several complete bone and stone tools, and large portions of pottery vessels and pipes.

The grid system of 10-foot square units was extended to these areas and refuse pit I was opened 110 feet along the brow of the hill and examined some 12 feet down the bank. Refuse pit II was opened 75 feet along the stream bank which was only some 5 to 7 feet deep.

In July 1951 a total of 10,459 specimens were recovered; 99 were of European origin.

EXCAVATIONS - 1952

The summer of 1952 was a particularly hot and dry one. In places over the village area short burnt grass indicated the presence of ash deposits. In these areas test holes were dug, and house sites located. Where such evidence occurred gridding was extended within the 100-foot squares. Intersecting trenches

at right angles located post moulds, and these were traced until the four walls of the building were established. Then, by 10-foot square units the house sites were examined. Examination continued in house sites 1, 2, and 3 which had been commenced the previous summer. House site 1 was completed, and house sites 4, 5, 6, 7, 8, and 9 were discovered and examined.

In horizontal cross section the post moulds of the walls appeared as grayish and sometimes black circles in the light sandy soil. They measured 4 to 6 inches in diameter. In vertical cross section they were gray to black in colour, similar to the sandy soil in texture, and in almost every instance contained some particles or lumps of charcoal with most charcoal occurring at the base. Often the walls of the post moulds had been penetrated by ash. In some cases a thin layer of carbonized wood, or vestige of burnt bark, appeared on the walls. They extended into the soil 18 inches and 2 feet below sod level. Most of them were pointed at the ends. They were irregularly spaced, and in some instances, former digging had destroyed the evidence. In still other instances only the extremity of 3 and 4 inches remained. Sufficient moulds however were uncovered to determine the size and shape of the buildings. There was no indication of superimposed buildings.

Caution was taken to determine that these were moulds of disintegrated poles and not the iron oxide stain that frequently occurs in the sandy soil of this district. Each post mould was examined by the archaeologist in charge and plotted on the field map by a member of the permanent staff.

Ash in varying density indicated the position of fire pits. In places, cone-shaped pits were traced to a depth of 12 to 18 inches below sod level. Where measurement was possible, they were 4 and 6 feet in diameter. The ash of the fire pits contained quantities of shattered fire stone and fragments of bone and shell. Pottery sherds were most prolific on the periphery of the fire pits. In house site 8, a fire pit was circled by stones shattered by fire. They appeared 10 inches

below sod level. The cone-shaped pit extended 18 inches and small burnt stones were lodged at the base.

In all the house sites except site 7, a second line of post moulds appeared two to three feet inside the outer line. The inner post moulds were slightly greater in diameter than those in the outer lines, and they extended no deeper than 18 inches into the soil. They were spaced more irregularly than the outer lines.

The size and shape of the dwellings varied. In width, they measured 20 feet almost consistently, with slight variation in site 4 which was 19 feet wide and sites 2, 6, and 9 which were 21 feet, the difference to be accounted for by the irregularity in the placement of the posts. Site 10 was the largest, measuring 80 by 20 feet. Site 7 was almost square, 24 by 20 feet. With this exception, the shape of the dwellings might be said to be oblong. There was no variation in corner construction. All corners were square.

Particles of carbonized elm bark, some 2 and 3 inches square, and sheets of carbonized birch bark were a common find. Although a naturally friable material, these specimens had been preserved by charring.

From the post moulds and other evidences in the soil within the house sites and their immediate vicinity, we have sufficient proof of the method of their construction. Green saplings procured from the slopes and swampy valley of the river, were burned to a pointed end, then set firmly into the subsoil to ensure stability. These were the uprights or studdings of the wall which were bent to form a rounded roof. Several of the outer lines of post moulds showed pressure towards the centre of the building. The inner lines of post moulds provided no instance of this condition, nor did the post moulds of end walls. Over the framework (which would necessarily be braced by poles running lengthwise, laced in position with thongs) elm bark was stretched as evidenced by the many charred remnants of bark.

The inner row of posts served as upright supports for the building and also for the bunks or sleeping ledges described by Champlain. "On both sides" he wrote, "is a sort of platform, 4 feet in height, on which they sleep in summer to escape the annoyance of fleas of which they have many, and in winter they lie beneath on mats near the fire in order to be warmer than on top of the platform."[4]

Openings, or doorways, appeared at either end of the buildings and in house sites 3, 5, 6, 9, and 11, hard packed soil substantiated the location of doorways where constant trampling had occurred.

Of the construction of Huron dwellings, Champlain wrote, "Their lodges are fashioned like bowers or arbors, covered with tree bark, twenty-five to thirty-five fathoms long, more or less, and six wide, leaving in the middle a passage from ten to twelve feet, which runs from one end to the other."[5]

In 1635 Jean de Brébeuf wrote in more detail. "I cannot better express the fashion of the Huron dwellings than to compare them to bowers or garden arbours - some of which, in place of branches and vegetation, are covered with cedar bark, some others with large pieces of ash, elm, fir or spruce bark.... There are cabins or arbors of various sizes, some two brasses in length, others of ten, others of twenty, of thirty, of forty; the usual width is about four brasses, their height is about the same. There are no different stories; there is no cellar, no chamber, no garret. It has neither window or chimney, only a miserable hole in the top of the cabin, left to permit the smoke to escape."[6] Sagard estimated the lodges to be "twenty-five and thirty fathoms long, more or less, (for they are not all of equal length) and six in breadth."[7] In size, therefore, there was considerable variety although in shape they were less variable. At the Flanagan pre-

[4]Champlain, vol. 3, p. 122.

[5]Ibid. p. 123.

[6]Jesuit Relations, vol. 8, p. 105-7.

[7]Sagard, p. 93.

historic site,[8] the longest of four longhouses was 62 feet, the shortest was 40 feet. There was a variety in width from 18 to 26 feet. (Appendix A)

Within the dwellings, food refuse pointed to typical native fare - bones of mammals, birds, fish, and shells of molluscs. Fish remains were most prolific. Eighty per cent of the animals used for food were deer, as proven by the portions of deer skulls. Other bone material in order of abundance were beaver, black bear, muskrat, racoon, porcupine, woodchuck, squirrel, and hare. Bird bones were not numerous. A few Canada goose, wild duck, and passenger pigeon bones were noted. Shells of fresh water clams and snails were numerous.

The most common vegetal remains were carbonized corn kernels, beans, and squash seeds with a few instances of carbonized corn cobs. No storage pit was discovered and no evidence of the corn hills described by Hunter in 1899 remained in the vicinity, intense cultivation having occurred in the interval.

The corn, beans, and squash seeds occurred chiefly in the refuse pits. Otherwise, the carbonized pits of wild cherry and plum, hickory nuts, beech nuts and butternuts were the only evidence of food. Agricultural tools consisted of well-worn scapula of deer, and worn clam shells, which were used as a hoe. Wooden tools could have been used, but if so, had disintegrated through the years.

In 1952 house sites 1, 2, 3, 4, 5, 6, 7, 8, and 9 were examined and a total of 8,781 specimens were recovered. Seventy-five were of European origin.

During this season, too, a portion of the palisade line to the east was traced.

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[8]The Flanagan site is a prehistoric Huron village site near Mount St. Louis, Medonte Township, Simcoe County. It was believed to be the location of Saint Joseph until excavations by the University of Western Ontario in 1947 proved it to be an early pre-contact site.

EXCAVATIONS - 1953

The same method of locating and examining house sites as had been practised in 1952 was continued. House sites 9 and 10 were discovered, and house sites 2, 3, 5, 7, 9, and 10 examined. A total of 3,427 finds, included 55 of European origin. The palisade line was traced on the north and south.

THE CHAPEL

Approximately in the centre of the village site, there was an elevation of 2 to 3 feet where two large boulders were imbedded, the only stones of any proportion in the area. Trenching proved it to have been a building site.

It was on July 14, 1952 that the post moulds of a wall were discovered and were traced for 31 feet 8 inches. The posts had been placed in a straight line. A well defined right angle corner was uncovered and a second wall followed for 59 feet 8 inches.

Four right-angle corners of a building were established. The lines of the post moulds were straight. The moulds were 4 to 5 inches in diameter and extended 2 feet below the plow level (i.e. 2 feet 8 inches below sod level). They were placed 2 feet apart with few exceptions. In some of the post moulds there was evidence of cedar remains.

The school session was finished but enthusiastic volunteers remained to complete the examination. The sod was removed in 5-foot squares and the whole area exposed. Beside the moulds there was a blackened band of ash and carbonized wood, 4 and 5 inches wide, proving that the building had been walled with a material heavier than bark. Also the ash deposit on both sides of the wall was heavier than was found near the walls of Indian dwellings. It suggested, in fact, that the building had been constructed of rather heavy split timbers and some 8-inch split post were outlined. In the area within the walls there was considerably

greater density of carbon than had existed in other building sites but no camp refuse and no artifactual material.

Within the four walls there was a pattern of post moulds. One continuous row of post moulds divided the building into two sections which, in turn, were subdivided. (Illus. p. 75)

One fire pit, 8 feet in diameter, was located in the south-west portion of the building. A few fragments of bird bones were the only refuse in its vicinity. In the south-east section (or room) heavy stones lined the corner. They showed no signs of burning. Two of these stones had been evident on the surface of the field.

Other heavy stones were in line with a row of large post moulds that extended the length of the building probably the supporting posts of a roof.

This was a building planned and erected by Europeans. Its location in the centre of the village and on the highest land, the absence of camp debris, and the unique plan of its interior, led us to conclude that it had been a chapel, with living quarters provided for the priest. On comparison, the plan of this building resembles strikingly that of the one European building discovered at Saint Ignace.[9] The Saint Ignace church measured 99 by 60 feet. At Saint Louis, the church was 60 by 32 feet. The northern section of each building consisted of two long, narrow rooms. In the north-west corner of each building there was a 6-foot square room which Jesuit historians suggest was a confessional. An ash pit was located in one of the small south rooms of each. Both buildings were provided with several doors. Both were constructed of split timber walls with studding of 4 and 5-inch posts. The central line of large post moulds in each indicate heavy roofs. (Illus. p. 74-75)

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[9]Jury, 1946-7.

DEFENSE

On Hunter's sketch, palisades surround the site which probably were evident in 1899 or had been reported by Mr. Newton, the original owner. Cultivation since that time had erased all evidence of earthworks except on the brow of the river bank, where there was an elevation that extended 50 feet on the east and 15 feet on the north. By a series of trenchings post moulds of a palisade were discovered and completely traced during the three summers.

Some difficulty was encountered in the cultivated field to the south-west which is the only portion not naturally defended by a bank or gully . Considerable test-trenching was necessary in this area before the line of post moulds was located. It was expected that, as at Saint Ignace, a double line of palisades would be found in this area where it was not naturally protected, but although an extensive search was made, no indication of a second line was found.

Two breaks occurred in the palisade line, one to the east where the Hogg River had cut into the bank and an estimated 150 feet of the original bank had disappeared. On the west, erosion had destroyed the bank and erased all evidence for a hundred foot distance. Entrances may have been located at these two points. A possible explanation for the serious erosion at these points may be found in the historical record of the site. "But finally, number has the advantage." Ragueneau, Superior of the Jesuit Mission, wrote of the attack on Saint Louis, "The Iroquois having undermined with blows of their hatchets the palisades of stakes, and have made a passage for themselves through considerable breaches."[10]

Where the stockade had been placed along the edge of the bank, the foundations of the structure could be undermined with less difficulty than in the north, north-east, and north-west, which is terraced to the river and where palisades stood on flat ground. Similarly in the south and south-west, the land was flat.

The palisade apart from these breaches, we are told, had withstood the initial

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[10]Jesuit Relations, vol. 34, p. 127.

attack of the Iroquois and on the following day, bands of Hurons from the village of Ossossoné joined combat with some Iroquois in the vicinity and "constrained the Iroquois to take refuge within the palisades of the village of Saint Louis - which had not been burned, but only the cabins. These Iroquois were forced into that palisade, and about thirty of them were taken captive."[11] It was only with a second attack on the village by the Iroquois returning to free their people that the defence of Saint Louis became inadequate.

The Hurons then, Ragueneau continued, "proceed to prayers, and sustain the assault of a place which, having been so recently captured and recaptured, was no longer adequate for defence. The shock was furious on both sides - our people having made many sallies, notwithstanding their small number, and having often constrained the enemy to give way. But - the combat having continued quite far into the night - as not more than a score of Christians, mostly wounded, were left, the victory remained wholly in the hands of the Infidels."[12]

The moulds in the palisade ranged in size from 2 inches in diameter to large split posts 17 inches in diameter. They extended to an average depth of 2 1/2 feet below the present sod level. The areas where banking was still in evidence proved that they had originally been supported by at least 3 feet of soil.

Whereas in dwelling sites single post moulds occurred at intervals along the walls, in the palisades, the moulds touched and often appeared as a continuous line. The poles had been placed side by side with smaller poles as fillers for the gaps where crooked or cut-sized poles had caused irregularities.

The palisade post moulds could be followed best at a depth of 18 inches to 2 feet where the definite outline of a trench could be traced by a mixture of subsoil and top-soil. Where the timber of the posts had completely disintegrated leaving practically no stains at a higher level, the outline could

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[11] Jesuit Relations, vol. 34, p. 193.

[12] Ibid.

be traced at this depth because of the carbon deposit resulting from burning the ends of the posts before placing them in the ground. Tracing the moulds to their extremity, the base of the trench was dotted with small black indentations where the points of the post had lodged.

The moulds that remained most definite were those of cedar posts. Where distingetration had occurred leaving little or no evidence, we assume that softer timber such as basswood, elm, maple and birch had been used.

Fragments of charcoal and carbonized bark occurred in the line of the palisades, and an occasional clam shell was found, suggesting that shells had been employed in digging the trench. In places there were deposits of carbonized elm bark, especially on the inside of the line. It is possible that sheets of bark had been placed along the wall to prevent missles being shot through the crevices. These deposits occurred chiefly on the east where the soil had been relatively undisturbed and where mounds had been visible.

Whereas on an Indian site saplings were used for the palisade, at Saint Louis the palisade had been built of split posts, some of them 17 inches wide. An Indian stockade follows, roughly, an oval or egg shape. At Saint Louis there were pointed corners. The posts of an Indian-built palisade are placed irregularly and the line curves and wavers. The lines were straight, at Saint Louis, the posts having been placed in straight trenches.

On the river side, the palisade followed the contour of the bank, yet the trench remained uniform in width and did not stagger or zig-zag. From the southernmost point on the bank the line extended due north-west for 250 feet and turned due north for 245 feet.

On a spit of land formed by a bow in the river the palisade came to a 60° angle. Unrelated post moulds occurred inside the angle. This feature had every appearance of being a look-out, not unlike a European pointed bastion and similar to the one uncovered at the south end of the European compound at Sainte Marie.[13]

[13]Jury, 1954, p. 78.

The straight lines, true bearings, and equilateral triangles indicate an application of surveying that was unknown to the Indians.

MATERIALS USED IN MANUFACTURING OF ARTIFACTS

The raw materials used in the fabrication of tools, utensils and objects of adornment consist of rock and mineral fragments, bark, clay, animal bones and clam shells. The inhabitants of Saint Louis also utilized discarded European metal.

Rock and mineral fragments, as such, or reworked include chert, chalcedony, quartz, quartzite, limestone, sandstone, soapstone, siltstone, slate, schists of various kinds as well as granites and other igneous rocks.

The source of the light and dark-gray chert was the chert lenses in the Ipperwash limestone at Ipperwash beach some 150 miles to the south-west. Chips of reddish pink chalcedony were found, but no complete artifact of this material.

There were numerous specimens of quartz, both worked and unworked, and also a few quartz pebbles. They resemble the quartz found on Manitoulin Island. Quartz is a common find on Huron sites. Sometimes hundreds of chips occur as well as worked pieces.

A celt was made from hornblende schist. Limestone and sandstone of suitable shape and size were used for mortars and for gaming stones. A large community mortar was made from granite. Ninety per cent of the whetstones as well as polishing or grinding stones, were of sandstone.

Beads were made from siltstone; a pendant was carved in green steatite and a pipe was carved in soapstone.

Clay that could have been obtained from the spring beds was used in the manufacturing of pottery vessels and tobacco pipes. Crushed gneiss, crushed quartzite and sometimes black mica were used for tempering material.

Deer bones were utilized more frequently than any other animal bone. Most of the deer bones are broken, many split lengthwise. They are, with few exceptions, parts of metapodial bones. The tibiae are most suited for the manufacturing of awls or needles. Ribs of the deer were split and fashioned into weaving bodkins

or netting needles. The scapulae of deer were used as agricultural tools.

The brain cases of deer and bear skulls were found, suggesting that the brain had been extracted for use in the tanning process. Bird bones were not widely utilized; only two beads fashioned from bird leg bones were found. Antler was not in popular use. Several pins had been made by straightening fish ribs.

Three beaver teeth were imbedded in split lower jaws, in their natural position. These sharp incisors of the beaver made excellent wood carving tools.

Clam shells were utilized as spoons, scrapers and apparently employed in excavating post-holes for the palisade's walls. Discoidal beads were fashioned from fresh water clams and cylindrical beads were made from large marine shells.

Birch bark was folded and sewn for containers and was used in the construction of dwellings and palisades.

STONE

Stone artifacts were distributed throughout the site. The surface soil at Saint Louis, both in the cultivated portion and in the reforested area, was replete with small cracked stones commonly called fire-stones, used in the preparation of food. Having no attraction for the relic collector they have remained scattered promiscuously, abundant evidence that a considerable settlement of people practising stone age methods had once been located there.

ROUGH AND POLISHED STONE

Rough stone tools included two hammerstones, eight unpitted pebbles and fourteen thick discoidal specimens. There were 30 mauls, rectangular in shape, battered on one or both ends; 19 tools that may be described as hammer or anvil stones; 22 notched flattened, and pebble net sinkers; 3 mortars; and 46 abrasive stones with one or more used surfaces, ranging in size from 2 inches to 6 1/2 inches.

A granite mortar 2 feet 3 inches in diameter was imbedded beside the fence in the roadway approaching the government cairn. The depression in the stone is 3 inches deep and 9 3/4 inches in diameter. No pestle was found on the site. One celt was found at the lowest level of refuse pit I.

CHIPPED STONE

Chipped stone specimens included 73 reddish-pink chalcedony flakes and 103 quartzite flakes some of which could have been used as cutting tools. There were 68 chert flakes.

Projectile Points

There were four complete and one broken chert projectile points. The four complete points are isosceles triangular in shape, two with slightly concave bases,

one with a deeper concave base, and one with a straight base. The broken point has a slightly concave base, and was probably isosceles triangular in shape. Four were of gray chert similar to that found in the silica-outcrop at Ipperwash Beach on Lake Huron. One specimen is white chert.

The projectile points were all found at shallow depths, immediately below the leaf mould. Three were imbedded in the river bank to the east, less than 3 feet from the palisade; one in the bank below the west palisade. Similar projectile points were found under these conditions at the Clearville site in Kent County, and in conversation, Wintemburg has stated that at the Lawson site projectile points were imbedded in the banks of the river below the palisade line.

Gaming Stones

Three disc-shaped stones were found. One is 1 1/8 inches in diameter, 9/16 inch thick, having a circular hole 3/16 inch in diameter drilled through its centre. The circumference of the stone is chipped and ground. The stone is polished. A second stone is 1 5/8 inches in diameter, and although a perforation had been attempted, the sandstone had split. It is rough and unpolished. This stone is variable in thickness, its greatest thickness being 3/8 inches.

The third - a round flat water-washed pebble is 1 3/8 inches in diameter, polished and with a slight indentation on one side but no perforation. It is 5/16 inch at its greatest thickness. All three stones were found within house sites.

BONE AND ANTLER

Bone artifacts were found in ash deposits within house sites and in refuse pits. Complete specimens of pottery markers and a harpoon were located in the roots of the poplar tree that had grown in refuse pit II.

Netting Needles

Six bone implements were made from the outer wall of deer ribs. They curve from end to end and in all but one, a small circular eye has been drilled in the centre. Three of them are broken. They are polished, although the inner wall of the rib remains slightly rough. The ends, where these remain, are tapered. The longest is 7 inches, 1/4 inch wide and 1/8 inch thick. (Plate III, 4)

These finely made bone tools are found in limited quantity on some late Huron sites. Closely related to them are straightened and polished perforated bone needles or bodkins made of deer ribs. (Plate III, 5) Neither type was found at the Flanagan Prehistoric Site or, to date, on the Forget Prehistoric Site.[14]

They are not known to the writers in the territory of the Neutrals. Wintemburg found three at the eastern edge of the Neutral country, near Brantford,[15] and he reported one broken netting needle at the Lawson site.[16] He found both types at Sidey-Mackay site in Nottawasaga Township[17] and large numbers of them at the Roebuck Site in eastern Ontario.[18]

They are a common find in various sections of the continent. In New York State they are of relatively ancient origin. Ritchie reports fifty "thin, curved, perforated needles", at the stratified site at Brewerton, New York, a trait common to both Point Peninsula and Owasco peoples,[19] and at the historic site of Dutch

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[14]The Forget site is a prehistoric village site near Wyebridge, 7 miles south of Midland, Ontario, in process of examination by the University of Western Ontario (1954-5).

[15]Wintemberg, 1948, p. 20.

[16]_____, 1939, p. 31.

[17]_____, 1946, pp. 167-8.

[18]_____, 1936, pp. 57-8.

[19]Ritchie, 1948, p. 24.

Hollow, Livingstone County, New York, he found a "curved bone needle made from a strip of deer rib".[20]

According to Sagard, the Hurons had no knowledge of cloth. The manufacturing of fish nets, however, must have been a major industry. When Champlain visited the Hurons they were trading extensively, bartering corn and fish nets for fur. "In moist and humid places", Sagard wrote, "there grows a plant named Ononhasquara, which makes very good hemp; the Indian women gathered and plucked it in season and prepared it as we do ourselves, without being able to learn who gave them the invention of it other than necessity which measured all inventions. After it is prepared they spin it on their thighs, as I have said; then the men make snares and fishing nets of it. They use it also for various other things, but not to make cloth, for they have not the use nor the knowledge of that."[21]

Generally, the making of snow shoes is suggested as the use for this type of needle, but none of the specimens found either at Saint Louis or Train had eyes large enough to allow for the thongs of snow shoes. We suggest, therefore, that these netting needles or bodkins of late Huron sites were utilized chiefly in the manufacturing of fish nets for the purpose of trade.

Pottery Markers

Bone tools that are triangular in section and taper to flattened tips are known locally as "pottery markers". They were fashioned from the tibiae of deer, with three edges sharpened and the natural hollow of the bone in the centre. Two of five specimens are in their original condition with one sharp end and one blunt end. These two are 9 1/2 inches long with 1/2 inch sides; and 9 inches long with two 1/2 inch sides and one side 3/8 inch. (Plate III,2)

[20]Ritchie, 1954, p. 26.

[21]Sagard, p. 240.

One has both ends missing; one is broken 3 inches from one end; and one has both tips shattered. They are well fashioned tools and highly polished, and may have been used in the process of sewing or in weaving. It can be readily proven that the insizing and punctations on most of the pottery at Saint Louis could have been produced by using either the sharp or blunt end of the two complete specimens.

This three-sided bone tool is not known to occur on Neutral sites and Wintemberg does not report them at the Sidey-Mackey or Roebuck sites. Nor have we found them described or illustrated as traits of New York Iroquois or pre-Iroquois peoples.[22]

Harpoon

One unilaterally barbed harpoon point was recovered in refuse pit II. It was fashioned from the tibia of a deer with natural roughness remaining on one side. It is 7 7/16 inches long, 5/8 inch wide at the base, widening to 3/4 inch at the first barb, and tapering to a sharpened tip. In cross section, the harpoon is half-oval. A circular perforation 3/16 inch in diameter has been drilled immediately below the first barb. There are five barbs cut obliquely and slightly concave. (Plate II, 1)

Comb

A broken portion of a bone comb is decorated with poorly executed, fine lines, in a pattern similar to the pottery designs that occur most frequently in late Huron sites. At the top of one side of the comb is a series of fine vertical markings below which are two fine but sharply cut horizontal lines, and three horizontal lines that are barely discernible. On the opposite side of the comb

[22]Beauchamp; Ritchie, 1944.

two rows of opposing oblique lines are separated by two horizontal lines. On the top edge of the comb are closely spaced small indentations. All the markings were made with an extremely fine, sharp tool, or needle.

There are ten teeth, one of which is broken. The others are their original length, the longest 3/4 inch; six teeth are a uniform 5/8 inch in length. All are pointed and sharp. The decorated portion of the comb is 3/4 inch deep. The comb was found in refuse pit I, at a depth of 18 inches. (Plate II, 8)

Needles or Awls

Some eighty specimens of worked bone may be classified as needles or awls, half of which are broken. Most were made from the long bones of deer, many of them retaining the joint to be used as a handle. Often only the tips or small portions remain making identification impossible. The longest is 6 3/16 inches in length. (Plate III, 3) Two awls had been made from the pectoral or dorsal fin of a catfish.

The base of a highly polished handle of a tool, probably an awl, is flat with convex edges and a notched flange at either side of the base. Hand worn decoration is visible on both sides. It was made from a long bone, probably of a deer, and the natural groove remains on the under side.

Antler Tip Awls

An antler tip awl complete and three broken antler tips were found. The complete tip is 3 inches long. It is notched on one side near the base by three horizontal lines or notches to secure the binding. (Plate III, 6)

CLAM AND FISH

Of one hundred and two shells of fresh water clams, only five were worked. One right valve and one left valve showed use along the entire margin. Three

right valves were each worn to a point at the posterior. (Plate III, 10) Clam shells were found in the refuse pits and in ash deposits within house sites. One worked shell was found in the palisade line.

Nine straightened fish ribs had been used as pins. (Plate III, 7)

BIRCH BARK

Carbonized birch bark was a frequent find in both refuse pits. In pit I at the river bank we found specimens, 6 inches in diameter, often folded and compressed. When the bark was first removed from the damp soil it was flexible and could be unfolded and flattened. In some pieces there was a series of small circular holes. Four pieces of very thin bark were folded into 1/2 inch squares. No portion was complete but they were undoubtedly the remains of birch bark vessels or containers.

PENDANTS

Three pendants with effigies of the human face were located by us at Saint Louis and it is recorded that similar finds had been made previously. One pendant carved from steatite, or soap stone of a slightly hard variety, is 1 5/16 inches in length, 1 inch wide at the eyes, narrowing to a pointed chin 1/2 inch wide. It is 3/16 inch thick at the head and 1/8 inch at the base of the chin. Eyes, nose, mouth and hair are carved distinctly and in the centre of the forehead, there is a small circular perforation. (Plate IV 8) It was found in refuse pit II beneath the roots of the poplar tree.

An effigy of a human head was modeled in blackened clay. A circular hole had been drilled to form the mouth, and eyes and nose are distinct. The skull is round, the face tapering to a pointed chin. It is 1 1/2 inches long, 9/16 inch wide across the eyes. It was found in house site 2 at a depth of 20 inches. (Plate IV, 9)

A bone ornament, representing a mask in miniature has been carved from the tibia of a deer. The human face is depicted with eyes, ears, nose, mouth and hair. There are three circular perforations, in the centre top and at each side of the forehead. The face is elongated, narrowing to a pointed chin. Owing to the natural curve of the bone, the mask is curved. (Plate III, 9) It was found in refuse pit I, at a depth of 12 inches.

VESSELS

The pottery found during our excavation of Saint Louis is but a small portion of the pottery known to have been removed from this site. Much of our find was fragmental although some large sherds that allowed for partial reconstruction were found near the spring and below the roots of the poplar tree in refuse pit II.

It is typical late Huron pottery, conventional in shape and decoration. The texture is generally fine and the sherds are thin. They were made of the clay of the district tempered with grit. The tempering material is fine to coarse. The average hardness is 3. The range in colour is from light grey to black, with a few buff shades. Cross sections show sharp variations in colour generally with lighter shades on the outer wall. Several are light grey or buff on inner walls, with black centres and lighter outer walls. Either as a result of the firing process or of the method of molding, or both, the sherds break readily into layers or laminations. There were no coil breaks in cross sections and the pottery was doubtless made by the paddle and anvil method as described by Sagard, an eye witness. "The Indian women make them, taking suitable earth, which they clean and knead very well, mixing in a little sandstone, then the mass being reduced to a ball, they make a hole in it with the fist which they engage continuously while beating it inside with a little wooden paddle, as much and as long as is necessary to complete them; these pots are made without

feet and without handles and are entirely round like a ball except the mouth which projects out a little."[23]

The vessels were globular in shape with round bases. The necks are constricted, and rims out-flaring. One rim sherd was slightly inflaring. The degree of out-flaring and constriction varied from slight to very pronounced. The size of the vessels was equally variable. The interior of the rims are straight and occasionally convex except where there are castellations. Lips are generally flat with angular edges. Of 981 rim sherds 26 bore castellations and an equal number of broken sherds may have borne castellations. Over one-half of the castellations were squared. The remainder were bifurcated, with a few pointed.

One deep platform rim (sometimes called Flat Top) bears a square castellation with a handle connecting the centre of the platform to an angular shoulder. Two sherds with castellations have handles broken. The handles are roughly square in cross section. (Illus.)

Decoration appears only on rim and shoulder sherds. Rim decoration is shallow. The deepest shoulder decoration is 3 1/2 inches. Only 10% of the lips are notched. The interior walls of the vessels bear marks of sharp instruments or reeds but these are not decorations. The bodies are smooth and plain.

There is a marked simplicity in design. Straight, and oblique incised lines and punctations were the only techniques practised. Horizontal lines or trailing were used sparingly. There was, however, variation in the results as affected by the type of tool used and the skill of the worker. Blunt or truncated tools, probably bone or wood, have produced well defined lines and oblong or round punctates. Sharp points have produced fine lines and cuts or gashes that are usually closely spaced. Smaller punctates take on various shapes, triangular being the most popular, produced possibly by the use of reeds or grasses. The artistic ability of the pottery maker too, is reflected in the decoration. Whereas some lines are straight,

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[23]Sagard, p. 109.

uniform in width, regular on both edges, and evenly spaced, others are poorly executed and irregularly spaced. Shoulder decorations are more uniformly well executed than rim decorations.

Five designs occur repeatedly on the rims - straight incised lines, oblique lines, straight crossed by oblique, oblique crossed by opposing oblique, and opposed triangles of oblique lines. (Plate I, 1, 2, 3) One rim sherd, rather course in texture and thick, had no decoration. (Illus. p. 63)

The pottery may be classified under MacNeish's Huron Pottery types as Huron Incised, Warminster Crossed, and in lesser numbers Sidey Notched.[24]

More elaborate shoulder decoration consists of a horizontal line of punctates, or gashes, below which the design consists of oblique lines contained in triangles with apex towards the base of the vessel; or oblique lines arranged in opposed triangles. (Plate I, 4, 5) One shoulder sherd bears a horizontal series of horizontally elongated punctates below which are two parallel horizontal lines, followed by oblique lines closely spaced. In such instances, the presumption is that the horizontal lines encircled the vessel.

The shoulder of our largest pottery specimen was decorated with a horizontal series of closely spaced small triangular punctates, above five horizontal lines that are interrupted at 2 1/2 and 3 1/2 inch intervals by two vertical lines.

Squared castellations are centered with one or two vertical lines from which oblique lines extend on either side. The lips of the squared castellations are all a rectangular plane and notched, although the lip of the vessel is generally plain. (Plate II, 2)

The bifurcated castellations are divided by one vertical line with opposed oblique lines on either side. (Plate II, 1) One castellation is cut into a deep "V" (5/16 inch wide) which continues as a groove to the base of the collar. Short horizontal lines which may have been stamped, line the "V", or groove, and

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[24]MacNeish.

from them extend right and left oblique lines. (Plate II, 3)

On one sherd, the collared rim has been brought to an angular projecting point under a squared castellation. The design on the rim consists of oblique lines decorated with small triangular punctates. Oblique lines were incised on the top of the castellation; the lip of the vessel is otherwise plain. The shoulder of this vessel was decorated by triangular punctates over a series of 3-inch oblique lines. (Plate II, 5)

An unusual sherd is buff in colour, smooth in finish. This vessel has had a slightly constricted neck with incurving rim. The castellation consists of two points rounded and separated by the width of a finger. Below the two points a ladder-like pattern of vertical and horizontal lines is repeated four times. A probable fifth repetition has been broken. The lip, between the two rounded points has incised gashes, otherwise it is plain. (Plate II, 4)

A sherd that cannot properly be described as castellated has a gradual curve from the rim to a raised portion which continues for 2 1/2 inches where breakage occurred. The rim is straight and decorated with straight incised lines which, under the projection, become slightly left oblique crossed with deeper, more widely spaced right oblique lines. The lip is flat with angular edges and undecorated, except the raised portion which is notched. (Plate I, 2)

TOBACCO PIPES

CLAY

The total number of pipe sherds was 271. Twenty-three of these were bowls or fragments of bowls. No complete pipe was recovered but it was possible to reconstruct four pipes completely and two with only the ends or mouth piece missing. In every case breakage had occurred at the stem immediately below the elbow. All of the reconstructed pipes were found in the refuse pits.

Pipes were made of clay tempered with sand or crushed clam shell. A few had

been tempered with charcoal. They are fine textured and smoothly finished with the exception of one uncompleted bowl. In colour they range from buff to sand; some are black.

They are elbow shaped with the bowl at an obtuse angle to the pipe. Six stems were broken at the elbow, and the distal end only of 8 stems remain. Of these fourteen stems, seven bore evidence of use, showing contact with teeth where the outer surface is worn away.

One pipe stem is square in section with round hole. The four edges are decorated by a series of small punctates. There is a sharp distinction in colour, one side of the stem being orange, and one black, from improper firing.

Other stems are round with round holes. With two exceptions holes are well centred in sections of either end or of centres of stems. Two stems, large in circumference, buff in colour, and rather rough in surface finish, appear to be more crudely made. In these the holes are not regular and not centred. One of these stems is complete, the shortest pipe stem found, measuring 1 1/2 inches to the elbow. The longest stem is 3 3/4 inches. The largest in circumference is 1/2 inch in diameter at the mouthpiece, the smallest 1/4 inch. All the stems taper gradually from elbow to mouthpiece. Three have a shallow moulding or rim at the mouthpiece.

Apart from the squared stem already described, the only decorative feature on pipe stems appears on the upper side where three rows of small punctates separated by two grooves extend the length of the stem. This decoration appears on "pinched-faced" pipes and continues on the bowl to the extended chin of the effigy.

A reconstructed pipe with a castellated bowl bears similar decoration on the stem. The three rows of punctates continue to the centre of the bowl and to the two castellations that face the smoker. The grooves become less pronounced at the elbow and disappear on the bowl.

There were six bowls or portions of bowls of the trumpet type. One complete trumpet bowl is 2 7/16 inches wide outside measurement at rim, with 1 inch orifice. The flat top of the rim is encircled with round punctates made with a blunt instrument. (Plate IV, 4) One shattered bowl is an estimated 3 inches at the rim which flared but is not flat topped. A small flat top bowl is 1 1/2 inches outside measurement at the rim, 1/2 inch orifice. It is undecorated. Two undecorated fragments of bowls have flaring rims.

Two reconstructed pipes have bowls that are bulbous in shape. The largest bowl (1 1/2 inch orifice) is circled with six horizontal lines under a series of oblong punctates, the smaller (orifice 1 inch) is encircled by 7 horizontal lines. (Plate IV, 5) These pipes have flat angular lips. Both were blackened with charcoal tempering and highly polished.

A sand coloured, cone shaped bowl of rough finish was evidently broken in the process of manufacture. It shows no indication of use. It is circled by five horizontal lines under which a series of circles have been cut into the clay with a sharp tool probably the hollow leg of a small waterfowl. (Plate IV, 6)

The reconstructed bowl with castellations at four corners is decorated with four horizontal lines on each of the four sides and two vertical lines at the corners or castellations. (Plate IV, 7) A portion of a bowl with castellations has two horizontal lines on each side and a deep gash or punctation at the castellated corner. Both of these pipes are buff in colour although the bowl of the reconstructed one has been blackened by use.

A crude and undecorated bowl has had concave sides curving to four corner elevations, and a flat base with relatively large hole. This pipe may have been experimental and must surely have proven unsatisfactory. The texture is extremely porous and the pipe has broken in firing at the base of the shallow bowl.

The smallest pipe bowl is 1/2 inch deep, 3/4 inch orifice, with slightly flaring rim. An unfinished bowl is of similar proportions. It had been shaped but was still solid.

Three fragments of pipe bowls are decorated by (a) deep horizontal grooves, (b) vertical lines, and (c) oblique lines arranged in triangular form.

A round thick pipe bowl bears the effigy of a bird - probably representing an owl. On one side of the bowl facing the smoker are two protruding round eyes and broken beak. Five horizontal lines have been drawn around the remainder of the bowl. A series of small closely spaced punctates encircle the base. To one side of the effigy there is an elevation which has been broken but evidently depicted an ear. A similar elevation was probably formed on the opposite side but has been completely shattered.

An unusual sherd indicated a bowl with a flaring rim and sharp constriction below the rim. The lip is flat, one horizontal line encircled the rim, above vertical lines to the constriction. Beneath this, on the small portion that remains, there are four horizontal punctations, one above the other, beside an effigy with deep circular eyes and mouth made by impressing a blunt instrument into the clay. This bowl must have resembled strikingly, an old fashioned "pot-bellied" stove. (Plate IV, 3)

A small round bowl with straight rim (orifice 7/8 inches), bears two round protruding eyes and a blunt protruding nose, facing the smoker.

We found eight examples of the typical Huron "blowing race" or "pinched face" effigy pipes. Only three are attached to a portion of a pipe bowl. The design seldom varies. Three horizontal lines encircle the head. Eyes are deeply gouged in the clay, and nose, mouth and chin protrude. An out-flaring at the eyes gives the impression of ears. Three lines are incised from the mouth to give the effect of blowing or, of a narrow thin face. A series of punctates extends in a vertical line from the chin to the stem. One, more elaborate, has been moulded to give the effect of arms, and on this pipe slightly oblique lines extend from the vertical line of punctates. (Plate IV, 1)

We find these human effigy pipes only on late Huron sites occupied after

the white man became known. It is possible that the Hurons, long skilled in modelling the effigies of birds, fish and animals, were depicting the narrow faces, with pointed beards, of the first French arrivals.

STONE

A pipe bowl, made of cream coloured, very compact soapstone, or steatite, is oval in shape (1 1/2 inches by 13/16 inch, orifice 3/4 inch by 1/2 inch). Two human faces have been carved at one end, at the opposite end are two decorative features that may represent two broad stemmed projectile points with tip toward the base of the bowl. This pipe probably broke during construction as there is no evidence of use. (Plate IV, 2)

BEADS

BONE

One small tubular bead was fashioned from the long bone of a bird. It was polished, with ends filed and polished. One bone bead, also the hollow bone of a bird, was deteriorated by fire.

STONE

There were 10 red stone beads: one unsymmetrical tubular bead, one inch long; two rectangular beads, square in section, 13/16 inch long and 5/8 inch long; two circular, with regular periphery, four small tabular or flattened on two sides; and one small tubular bead.

The stone is of a fine grained red clayey siltstone. The beads are polished with ends ground. The holes are drilled and circular, well centred and straight. Some holes are larger at one end.

SHELL

Three cylindrical shell beads have been made from the columellae of large marine shells. One, with broken tip, is 2 inches long. This bead has been polished but now shows signs of weathering. The tip that remains is tapered and round.

Twenty-one small cylindrical and disc beads were made from the shells of small freshwater clams. Three are purple in colour, one almost black. The largest disc bead is 1/2 inch in diameter and highly polished.

OBJECTS OF EUROPEAN ORIGIN

METAL

Brass and copper cuttings were numerous throughout the entire village area particularly in the two refuse pits and within the house sites. The cuttings were small, some of them merely thin edges or trimmings, even wire-like, as though cut with snips or scissors. Occasionally there are rivet holes in the metal. The largest of the cuttings are roughly two inches square. Copper was of European origin.

BRASS

A brass rod 7 3/4 inches long and 1/4 inch thick is pointed at each end. It could have been used as an awl or punch. (Illus. p. 68, 2)

A portion of a brass kettle 5 1/2 inches square has been cut on one side by a cold chisel. There are two rivet holes and an impression in the metal where the handle had been attached. Three smaller portions of kettles were found.

COPPER

In refuse pit II we found a lizard cut from a thin sheet of copper. The head with mouth open, four legs and a tail are defined. A small circular perforation had been drilled in the centre of the body, and a smaller one for the

eye. The lizard curves from tail to mouth and measures 2 1/4 inches in length; the body is 1/4 inch wide. (Plate V, 1)

Three copper projectile points were found in refuse pits I and II. They were similar in shape to the flint points (isosceles triangular), two with stems; one stem is one-half the length of the point. The point with straight base has a circular perforation drilled in the centre. (Plate V, 3)

IRON

Cross

In a portion of house site 1 that had been previously undisturbed, was an iron cross, formerly a crucifix, in which the four rivets that had held the figure still remained. There is the impression of a hole at the top of the cross now encrusted by corrosion. The long bar of the cross is 1 1/2 inches, crossed by a bar 3/4 inch. It was found at a depth of 8 inches. (Plate V, 5)

Nails and Spikes

A broken spike, square in section, is 4 1/2 inches long. The short portion of a heavier spike is 2 inches long. There were 17 nails and 9 broken parts of nails. The shafts are square or rectangular in section with heads roughly square, rectangular, or irregularly round. Complete nails are from 1 1/4 inches to 3 3/4 inches long. The shafts are slender; three are bent and two are clinched at right angles. All the nails were found in house site 3, at a shallow depth. (Illus.)

Staples

A U-shaped staple with both ends clinched and a small U-shaped staple twisted by fire so that the two prongs are compressed are also from house site 3. (Illus.)

Axes

An iron axe is blunted at the blade. The trade mark is barely discernible because of corrosive destruction on the surface and possibly because the dye was inadequately struck. Three small triangles could be traced and there was probably a fourth. (Illus. p.68,4) An axe blade broken from the socket, bears a trade mark that would appear to be similar but is even less visible. One broken socket of an axe was recovered.

A wedge that had been manufactured from the blade of an axe bore cutting marks of a cold chisel on one side. The blade has been re-sharpened. This tool is an excellent chisel or adze. (Illus. p. 68, 1)

Knives

Seventeen knife blades were recovered. Seven have been broken or have corroded to a degree that their size cannot be estimated. The shape, however, is evident. One edge is straight, the opposite curves to a pointed end. One blade curves on both edges. (Plate V, 4)

Six of the blades have handles, and an additional six; broken handles. Four of the six broken handles have perforations near the blade and rivets remain in two. All the handles but one continue in straight line from the straight edge of the blade. They are approximately 1/2 to 1/3 the width of the base of the blades. One blade curves abruptly to a pointed end; its handle is pointed like an awl and extends from the centre of the blade. The blades are thin and of varying lengths. The shortest complete blade is 2 inches long, the longest is 5 inches. The widest portion of any of the seventeen blades is 1 inch.

LEAD

A lead musket ball was found six feet within the palisade wall on the east. Ragueneau in writing of the attack on Saint Ignace, has said that the Iroquois were "well furnished with weapons, and mostly with firearms which they obtain

from the Dutch, their allies."[25]

An interesting pendant had been fashioned from a thin sheet of lead that had probably been pounded and rolled from a lead musket ball. It represents a turtle with round body, round head and two front legs protruding. A circular perforation had been drilled in the centre of the shoulder. It measures 2 inches from tail to head. (Plate V, 2)

BEADS

Of 45 glass beads, 3 are polychromes. One broken bead is cane made, cylindrical, pale green in colour, of semi-transparent glass with brown and white opaque overlay stripes. A bead flattened on two sides, or tabular, is red with stripes of cobalt blue and white irridescent inlay. A cobalt blue glass bead is oblate spheroid in shape, decorated on either end with a frill design in red bounded by white.

Four cylindrical cane-made beads are irridescent, 2 bluish-green, 1 opalescent having been affected by fire, and one gray considerably deteriorated by fire. There are eight cylindrical, cane-made, brown beads, two of which have been twisted to give a spiral effect.

A spherical and an oblong bead are pale blue, pitted from contact with fire. The oblong bead has an oblong perforation in one wall. Beads similar in colour and material were found in the single European grave at Sainte Marie. The oblong bead has been at the intersection of a bead cross. Bead crosses have been found intact in graves, with a similar bead perforated in one wall at the intersection of the bars.

There are two milk white beads, one ovoid, one spherical in shape.

Three spheroid beads are red in colour with black bands encircling the holes. One broken bead of this type reveals that they are opaque black glass with opaque red glass overlay, produced probably by dipping, the black circle remaining at

[25]Jesuit Relations, vol. 34, p. 127.

each end. Thirteen small beads commonly called seed beads were similarly made and one is the original black without the overlay.

Two milk white seed beads are of similar material to the two large milk white beads. There are five blue seed beads.

One bluish irridescent bead is rectangular in shape, square in section, probably Venetian drawn glass.

Map 2

Map of Huron Country Published in Du Creux's Historiae Canadensis (Paris, 1660)

THE IDENTITY OF SAINT LOUIS

A consideration, by no means a proof, in determining the location of Saint Louis is local tradition. Every searcher and historian in Huronia, as well as early settlers have recorded that the Newton farm, more than any other location where Indian remains have been found within a radius of two to four miles east of Sainte Marie, has been the one most prolific in artifactual material both Indian and European. It, likewise, has provided the most abundant evidence of Indian village life, in circular fire pits, extensive ash deposits and adjacent corn hills. In its immediate vicinity, 17th century European trade goods are continuously found. On the adjoining farm to the west, hundreds of iron axes have been picked up and traded by the wagon-load as junk.

There are few specific references to Saint Louis in contemporary 17th century literature and cartography. François Du Creux, S.J., published his "Inset map of the Huron country, today deserted" in 1660, soon after the downfall of the Huron Mission. Du Creux's Historia Canadensis, in which his Tabula Novae Franciae appeared, was prepared under tutelage of missionaries returned from the ill-fated mission. His map, it is true, is not entirely correct in proportionate distances, but this occurs chiefly toward Lake Huron and the Bruce Peninsula, and again in the Lake Ontario areas, not too well known and by no means travelled as extensively or as habitually by the Jesuits as was the vicinity of Sainte Marie.

There, Du Creux has outlined correctly the five rivers that flow northward into Georgian Bay. On the first he noted Sainte Marie, on the second, Saint Ludovici, and on the third, Saint Ignatius.

Sainte Marie has been a known site because of its stone foundations situated on the first river, now the Wye. The Newton site is on the second river, the Hogg. The site that we excavated and believe to be Saint Ignace is on the third river, the Sturgeon.

There is no location on the banks of the Hogg River so well situated for a fortified village as the Newton site, nor have there been Indian remains of any extent discovered at another point on the river.

Paul Rageneau, S.J., Superior of the Mission to the Hurons wrote of the events of March 1649, within a few weeks of their happening: "The enemy does not stop there (Saint Ignace); he follows up his victory and before Sunrise he appears in arms to attack the village of Saint Louis which was fortified with a fairly good stockade.... Toward nine o'clock in the morning, we perceived from our house at Sainte Marie the fire which was consuming the cabins of that village, where the enemy, having entered victoriously had reduced everything to desolation...at the sight of those flames, and by the colour of the smoke which issued from them, we understood sufficiently what was happening, - this village of Saint Louis not being further distant from us than one league."[26]

Rageneau wrote from Sainte Marie where he had been stationed since 1645. He was a scholar, well acquainted with the topography of the area and in preparing this annual Relation for his superiors in France, he was compiling what he knew to be the most important document of his residency. His estimate of "not over one league" would be a thoughtful and well considered one.

Four years later, François Joseph Bressani, S.J., wrote in Italian of the attack by the Iroquois: "The enemy did not stop at the first fort, (Saint Ignace) except so far as was necessary for giving orders for the safety of the captives and those who remained, as it were, in garrison to guard them: and then he proceeded directly to Saint Louis.... The smoke which we saw from the place of our abode - which was not more than two miles distant - first warned us by its colour, of this disaster; and shortly after came two or three fugitives."[27]

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[26]Jesuit Relations, vol. 34, p. 127.

[27]Ibid., vol. 39, p. 249.

Bressani had been in the Huron country for the better part of four years, stationed probably at Sainte Marie and likewise was well acquainted with the route to Saint Louis.

The question then arises of the meaning of Rageneau's "league" and Bressani's "mile". Full discussions of the problem may be found in Jones', Old Huronia,[28] and in W.S. Fox's, Saint Ignace.[29] We are agreed that the decision of these scholars is the correct one. Rageneau, in the absence of instruments for measuring distances would refer to the "hour league", the distance a man could walk in an hour, or an estimated 4.872 kilometres. The English league is 4.827 kilometres, or three miles. Bressani doubtless referred to the Italian mile, two of which would be 3.704 kilometres.

Dr. Fox has retold the story of Alphonse Arpin and T.G. Connon, who measured the distance by bicycle and cyclometer. We accept Arpin's measurement of three miles from Sainte Marie to the Newton farm. Arpin was a natural woodsman as were his forefathers in this very region. He was thoroughly acquainted with the terrain between the two sites and his choice of route would closely correspond to that used by the missionaries. Arpin's three miles varies only by yards from the estimated distances of Rageneau and Bressani, which, considering that estimated "walking" distances are being considered, is hardly appreciable.

To further substantiate the claim that the Newton site is the location of Saint Louis, a large brush pile of cedar and pine boughts was built in the centre of the site by the Summer School students of 1953. The class was divided with some remaining to light the fire; others were stationed at Sainte Marie; and still others climbed to the lookout above Sainte Marie. The black smoke was seen to rise in the hot still air of the July day, both from the site of Sainte Marie and from the lookout above. Thus the scene of 1649, as recorded, was to some extent re-enacted.

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[28] Jones, p. 101-17.

[29] Fox, p. 69-91.

Concerning the village itself, from written records we know only that it was fortified by a stockade strong enough to withstand capture, and recapture, and then sustain an assault until "far into the night". We are told that some 580 persons inhabited it in 1649, eighty of whom remained with the priests to face the Iroquois; that the cabins were burned; and that the Iroquois used European firearms in the attack.

Our investigation has proven that the village on the Newton site was surrounded by a well-constructed timber palisade. Within the walls was an area that could well contain five or six hundred people. Evidence of burning was abundant in soil conditions and on the artifacts and materials found. One lead ball was discovered near the palisade wall to the east.

Saint Louis was one of the villages included in the Mission of Sainte Marie, until the winter of 1647-48, when it became a part of the Mission of Saint Ignace. As a mission site visited by one of the priests, there would be a chapel where mass could be said and where the priest could have temporary lodging. A building constructed in European style was traced in the centre of the village, which we believe to be a chapel.

Because the geographical location coincides so closely with contemporary records as corroborated by Arpin's experiment, and because of the presence of a European built chapel, we believe that the site under consideration, formerly owned by the late Charles Newton, now owned by Edom Wilson, is the location of the village of Saint Louis.

SUMMARY

European tradition was long standing with the people of Saint Louis and its environs. Previous to the 17th century individual white traders had contacted tribes on the north shores of the Saint Lawrence that are known to have had trade relations with the Hurons. It is possible even that a few more adventuresome Hurons had themselves bartered with white men in the first decade of the century or earlier, for the trading practices of the Hurons carried them into distant areas, over routes to the west, north, and east, through the myriad of lakes and rivers of northern Ontario and Quebec. The Saguenay was known to them and was used as an alternate route when passage on the Ottawa became treacherous. "This is the region" Champlain wrote of the Upper Saguenay in 1608, "to which our savages go with the merchandise we give them".[30] Champlain had knowledge at this early date of the prosperity of the Hurons. The Hurons, we can assume were equally knowledgable of the white man who came to the Saint Lawrence.

If the first trade goods did not come to the Huron country by Huron agency, it is hardly conceivable that the nomad tribes of Algonquins who shifted continuously from the Saint Lawrence and Upper Ottawa to the islands and far shores of the Upper Great Lakes did not introduce European goods in some measure to the Hurons, their friends in trade and allies in war. At least news of the white man and his practices must have penetrated to the villages of a people whose distinctive traits were travel and trade.[31]

In 1609 the first recorded barter took place between French and Huron on the Saint Lawrence above Quebec. In 1611 Champlain sent Étienne Brulé into the Huron country to travel among them, learn their language, and encourage them to trade. In 1615, twelve armed men came with Le Caron, the first missionary, closely

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[30]Champlain, vol. 3, p. 18.

[31]Hunt, p. 66-82.

followed by Champlain himself. From this time on, French-Huron contact was continuous with the possible exception of the English occupation from 1629 to 1632 at which time twelve boats with Frenchmen left the Huron country. For thirty years French and Huron travelled together the long route to Quebec, lived in the same villages, existed by the same means of livelihood, exchanged food, clothing, tools and utensils, and shared their knowledge of fortifications and war.

Until 1639 the Penetanguishene peninsula was the centre of French activity; Toanché, the landing place; Carhagouha, Ihonatiria, and Ossossone the principal town of the Bear Clan, were all within a ten to fifteen mile radius to the west of the Saint Louis district. After 1639 more intensive French activity was motivated from Sainte Marie, but three miles distant. Here was a self-sustaining European settlement with European buildings, furniture, hardware, water systems; carpenters, blacksmiths, stonemasons, tailors, shoemakers, laundrymen, cooks, gardeners; apothecaries, a surgeon and a hospital; a farm, stables, and a garden; soldiers, stone fortifications and a cannon; books, writing materials, pictures, glassware, metalware, crockery, clocks, sun-dials, compasses and a magnet.

A constant relationship would be maintained between the inhabitants of Saint Louis and this advanced settlement. Probably many of them assisted in the building of Sainte Marie. Besides the priests, some twenty to forty French laymen are known to have been continuously resident at Sainte Marie and in the neighbouring villages. Flotillas of fifty, one hundred, and two hundred canoes, heavily laden with peltries left their country yearly to return as heavily laden with trade goods. There could have been no village in the Huron country that would not have been acquainted with European practices, and no family in the area contiguous to the shores of the bay that would be unaffected by European influences.

Saint Louis, then, was not a typical Huron village, but one in which

two cultures mingled. The fusion had taken place freely and was not the result of compulsion or coercion by war or captivity. Fundamentally, it had an economic basis and European influences resulted in variations in fortifications, and in the adoption of labour saving objects to facilitate the duties of everyday life. Some of the natives would accept the new tools more readily than others. To the younger members of the Saint Louis community, iron hatchets, awls, knives, copper kettles, and even the French arquebus must veritably have been "native" or "natural" tools, or so we might expect.

Early Huron sites were situated on hill tops, Saint Louis like Saint Ignace was situated on a flat plateau in a bend of a navigable stream. Both villages were fortified by nature on three sides with steep banks extending to the water's edge. There is more than a suggestion, after a study of the Relations of the period, of the surrounding countryside, and of the evidence uncovered, that both villages had been chosen on the advice of the French and that the French considered them as outposts to Sainte Marie.

The similarity in the topography of the two sites has caused confusion in their identity. Rageneau's description of Saint Ignace is equally applicable to Saint Louis. It was "surrounded with a stockade of pine trees from fifteen to sixteen feet in height, and with a deep ditch wherewith nature had strongly fortified this place on three sides,--there remaining only a little space which was weaker than the others."[32] Both villages were built on sandy soil, and were well drained. At Saint Louis there were two fresh water springs, one to the north within the palisade walls and one immediately outside the walls to the west. At Saint Ignace there was a well inside the walls, built similar to the well in the Indian compound at Sainte Marie. The three sites were thus provided with water in the event of seige.

The dwellings at Saint Louis were of typical Huron construction and material

[32]Jesuit Relations, vol. 34, p. 123-5.

with the usual features of fire pits and bunk post moulds. They followed the pattern of the longhouse of the prehistoric Flanagan site[33] and differed from Saint Ignace longhouses which were considerably wider and built with central poles.[34] (Illus. Appendix A)

The village plan, however, was not Indian. Placed lengthwise, the houses paralleled the circumference of the palisade walls. At Saint Ignace they were placed lengthwise from circumference to centre. In both villages there was an orderliness not found in Indian village sites; in the centre of both villages on slight natural elevations were European buildings, believed to be chapels with living quarters.

The total finds at Saint Louis during the three seasons was 22,667. Of these 14,518 were pot and rim sherds. Objects of European origin numbered 229.

The eight hundred inhabitants that escaped Saint Louis on the morning of March 16, 1649 doubtless carried with them some copper and iron possessions. These in fact may have been cached in readiness for such an event. In the alarm of 1636 Brebeuf had written, "This winter we were on the point of fleeing; but where could we conceal our futile belongings for the Hurons are as fond of them, as are the Iroquois."[35] Native tools and utensils that could be readily re-made were more likely to be left behind. The Iroquois, too, would appropriate, with their captives such objects as had been overlooked. Bands of Indians who traversed the country following the exodus of the Hurons may have salvaged iron. Early settlers certainly made use of copper and iron products of the seventeenth century and indeed the French "tomahawk" is yet not an unusual tool in barns and sheds of the district. When the first ploughing turned over the soil the heavier metal objects were uncovered, and private collections made on the site are rich in trade goods. Possibly for these reasons, objects of native origin

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[33] Jury, 1948.

[34] ----, 1946-7.

[35] Jesuit Relations, vol. 10, p. 53.

so greatly outnumber those of European origin, and too close an analysis of our material on statistical evidence would be misleading. It is well known that quantities of material, both Indian and European, have been removed from the site but no private collection made at Saint Louis has, to our knowledge, been isolated from material from other sources.

Our investigation has concentrated on the discovery and the examination of dwellings and fortificatipns, and their method of construction, as evidenced in the deeper, relatively undisturbed strata of the soil. From specimens of raw materials, from discards, and from partially made and shattered artifacts we are enabled to reconstruct the industries of the inhabitants in the final stages of the French-contact period. Middens and camp refuse have been investigated for changing patterns in living practices.

The inhabitants existed on typical native fare. Corn, beans and squash were cultivated and berries and nuts of the district were gathered. No storage pits were discovered.

It was the custom of the Hurons to store their corn in bins. "At the end of these cabins," Champlain wrote, "is a space where they keep their Indian corn, which they put in great casks, made of tree bark, in the middle of their lodge."[36] Sagard says that on their porches were "vats and tubs of bark, in which they store the corn, after it is very dry and shelled."[37]

Storage pits may have been destroyed by earlier diggers and it is possible that house site 7, a small irregular building, centrally located with no post moulds of bunk posts, served as a store house.

There is no tradition of a complete brass kettle being found at Saint Louis, although they do occur in the Huron country. The largest portion of a brass kettle found was approximately 5 1/2 inches square. A few small brass pieces were

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[36]Champlain, vol. 3, p. 123.

[37]Sagard, p. 95.

probably parts of kettles, two of them with perforations where rivets had attached the lugs to the kettles. Cut remnants of brass suggest that the inhabitants were reworking the metal, which would appeal to the native for use as ornaments. From the frequency of pot sherds, we assume that despite the introduction of the kettles, cooking was carried on in the native pottery vessels. The sherds are blackened with fire and bear incrustation of carbonized food particles on the interiors.

Copper and brass cuttings were strikingly similar to the cuttings found in the blacksmith's shop at Sainte Marie, many of them cut with snips and scissors. It would appear that the people of the village had procured discards either by trade or as gifts, from Saint Marie. The small copper pieces would be of particular value for manufacturing projectile points. All the copper was of European origin.

One brass rod, three copper projectile points and a copper pendant cut in the form of a lizard were the only completed objects of copper and brass from the broad distribution of cuttings in the house sites.

The ironware was trade material, manufactured either in France, or Quebec, or at Sainte Marie. Nails, spikes and staples were distributed within one house site at a shallow depth. No other house site including that of the chapel yielded nails. The iron cross found in site 1 was probably the property of one of the French, possibly one of the priests.

A lead ball had been reclaimed to create a turtle pendant. Although firearms are said not to have been distributed as freely among the Hurons as among the Iroquois by the Dutch and the English, they were numerous in the vicinity.[38]

Trade goods that occurred in greatest quantity were iron knife blades. They were all case knives with iron stems, the iron only remaining.

Hammer stones, and stone axes, many of them broken, occurred in house sites and refuse dumps. There were a number of natural stones of a shape and material

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[38]Mayer.

that suggest an intention to fashion tools from the crude specimens. Pitted stones and abrasive stones indicate that the people of Saint Louis were continuing to manufacture their traditional tools in the traditional manner despite the quantity of iron that had come into their possession. Similarly, flint and quartz blanks and flakes proved that cutting tools and projectile points were in the process of manufacture. Possibly flint knives were not being manufactured in quantities as they formerly had been, for most prolific of trade goods were the sharp-bladed European knives. Only one celt was found, at the deepest level of refuse pit I.

The native bone industry was not diminishing and bone tools show skillful workmanship. The frequency of needles, or awls, and netting needles indicates that they were in continual use in the preparation of skin clothing and in the weaving of fish nets. Clam shells located in the palisade line proved that the clam shell had not been discarded, despite the fact that although iron tools had probably been used in this operation. In agriculture the shoulder blade of the deer and the broad phalange of the antler was still in use.

Ceramic tradition remained strong. The molding of earthenware vessels and pipes was in general practice. Artistically the people of Saint Louis were well developed. Although on earthenware vessels the design is simple and displays little originality or variation, it is usually well executed. The curved walls of the globular shaped vessels show facility in handling the modeling material and an appreciation of form. The rather flat bottoms and handles indicate that they were fashioned for practicability.

Earthenware pipe bowls bear excellent examples of modelling. Bird forms rather than animal seemed to have interested the makers. Skillful representations of the human face depict not only eyes, mouth and nose but in the "pinched-faced" effigies, eyes, nose, mouth, head-dress, ears, arms, legs and "expression" appear in conventionalized style. Less complicated are the human faces represented by

circular impressions for eyes and mouth, with sometimes a protruding nose.

Pendants of stone, clay and bone display a high degree of ability in carving and modelling. The human face is represented in all three with good proportions and, in stone, with considerable detail in hair, eyes, nose, mouth and chin. Such attention to detail is not found in Indian carving previous to the white man's arrival.

Both native and European beads were worn. Native beads were of bone, disc and cylindrical shell, and red siltstone. Spherical and oblate spherical glass beads are similar to those in the graves at Sainte Marie where they were assumed to be prayer beads in rosaries. Cylindrical and rectangular cane-made, and tabular beads, probably Venetian glass, were purely for adornment.

Articles used in games were three stone discs, one of them perforated.

It is difficult to assess the effect of the spiritual impact of the Jesuits on the inhabitants. The presence of the chapel building indicates that there were a number of converts and that the village was sympathetic or at least friendly to the missionaries. The distribution of beads that could have been prayer beads was fairly general over the village site. It was the custom to give to the natives wooden rosaries which would have disintegrated in the soil. Of a total population of over five hundred and eighty, eighty persons, "the people of most courage", remained with the priests, being "resolved to defend themselves".

There are no graves reported near the village area and no human bones are known to have been located there. On the adjoining property to the west an ossuary was discovered in 1879 which contained some 500 bodies, "2 tomahawks, bearing a French stamp; 4 pieces of copper, each resembled the sole of a boot of different size, and wrapped in buckskin which is still fresh and strong; one clay tobacco pipe and parts of two sea shells one in fair preservation."[39]

[39]Hunter, p. 69-70.

As the area was densely populated, especially in the latter years, and it would be futile to surmise which of the nearby villages had buried their dead in this ossuary.

It was in the fortifications of St. Louis that European influence appeared strongest. Heavy split posts had been planted side by side in straight trenches. Away from the embankments, palisades had extended in true astronomical lines, and were traced to pointed corners and bastion-like look-outs. For over ten years the French had been teaching the Hurons to fortify their villages according to European practices. As early as 1636 Brebeuf wrote, "The Hurons have remained very friendly to us on account of the promptitude we showed in assisting them. We have told them also that henceforth they should make their forts square and arrange their posts in straight lines, and by means of four little towers on the four corners four Frenchmen might easily, with their arquebuses or muskets, defend a whole village. They are greatly delighted with this advice and have already begun to practise it at La Rochelle" (Ossossané).[40]

Bressani, in describing the fall of St. Ignace said that, "This first fort of the Hurons was impregnable to the Barbarians,--both from its position and because of the fortifications which we have made there."[41] The palisade walls of the two villages were built under European direction, possibly with European assistance.

The process of acculturation was probably considerably advanced at Saint Louis, but the total degree of advancement cannot be measured by material evidence. The mental attitude of the people had altered of necessity and was at best confused. The location of a Christian chapel is our most impressive evidence of transition in mental and spiritual concepts. The orderly placement of buildings reflects a new mental process and even if devised by outside influences the en-

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[40] Jesuit Relations, vol. 10, p. 53.

[41] Ibid., vol. 39, p. 247.

vironmental change from the disorganization of a typical Indian village would affect old mental processes.

Material evidence points to the adoption of methods of war and fortifications as the chief elements of change--copper projectile points, lead musket balls, the palisades of heavy split timbers, necessarily procured with iron and finally, the method of construction of the palisade walls. Otherwise, the sharp cutting knife was the European tool most widely adopted for everyday use. Numerous brass and copper cuttings show a preoccupation with metal goods.

Native bone industries continued more advanced in skill at Saint Louis than at the early Flanagan site; stone industries were continuing with no abatement, with the exception of flint chipping. Clay modelling reached its height in the effigy pipe bowls, particularly the "pinched-face" variety. Clay vessels were universally in use and in process of manufacture, more competent in shape and execution of design, but not advanced in texture or elements of design from those of the Flanagan people. Agricultural practices and food were the same on both sites; the people of Saint Louis constructed and lived in homes similar to those of the Flanagan site.

Trade goods similar to those from Saint Louis were found at the Train site and native fabrication of the same tools and utensils continued at both sites. At Train, as at Saint Louis, the metal knife far outnumbered other European tools. Awls were numerous at Train. Artifactual evidence at the Train site was greater numerically than at Saint Louis because the soil was relatively undisturbed. Trade goods at Train included more sophisticated objects such as scissors, and candleholders, but this does not prove that these objects were used by the native, for Saint Joseph or Teanaostaiaë, as we believe the Train site to be, was for twelve years an independent mission where several French, priests and laymen, had lodged with some permanency.

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APPENDIX A

HOUSE SITES AT SAINT LOUIS, SAINT IGNACE AND FLANAGAN SITES

Saint Louis			Saint Ignace			Flanagan		
House site	1	48' x 20'	House site	1	58' x 15'	House site	1	62' x 22'
	2	76' x 21'		2	104' x 35'		2	60' x 20'
	3	75' x 20'		3	100' x 28'		3	57' x 26'
	4	49' x 19'		4	94' x 31'		4	40' x 18'
	5	43' x 20'		5	72' x 31' 3"			
	6	45' x 21'		6	94' x 31'			
	7	24' x 20'		7	59' x 27'			
	8	49' x 20'		8	95' x 32'			
	9	50' x 21'		9	93' x 28'			
	10	80' x 20'		10	72' x 25'			
	11	51' x 20'		11	72' x 30'			
Church		60' x 32'		12	84' x 26'			
				13	94' x 24'			
				14	96' x 33'			
				15	109' x 33'			
				16	92' x 36'			
				17	93' x 29'			
				18	79' x 30'			
				19	one side wall			
				20	two side walls			
				21	two walls & end			
				22	100' x 32'			
				23	69' x 27'			
				24	109' x 29'			
				25	90' x 25'			
			Church	26	99' x 60'			
			House site	27	47' x 14'			

APPENDIX B

OBJECTS OF EUROPEAN ORIGIN
FROM
SAINT LOUIS AND TRAIN SITES

Material		Saint Louis	Train
Brass	awls	1	
	portions of kettle	5	9
	cuttings	41	
Copper	candle holders		2
	pendant	1	
	projectile points	3	50
	cuttings	79	
Iron	axes, broken axe, socket	3	5
	awls		45
	chisel		1
	cross	1	
	knives	17	39
	nails	26	98
	scissors		2
	spikes	2	17
	staples	2	1
	wedge	1	
Lead	musket ball	1	
	pendant	1	
Glass	beads	45	15

APPENDIX C

"Of the capture of the villages of the Mission of St. Ignace,
in the month of March of the year 1649."
by Paul Ragueneau, S.J. in his Relation for 1648 and 1649.
(Thwaites ed. of Jesuit Relations, v. 34, p. 123-135.)

"The Iroquois, enemies of the Hurons, to the number of about a thousand men, well furnished with weapons, - and mostly with firearms, which they obtain from the Dutch, their allies, - arrived by night at the frontier of this country, without our having had any knowledge of their approach; although they had started from their country in the Autumn, hunting in the forests throughout the Winter, and had made over the snow nearly two hundred leagues of a very difficult road, in order to come and surprise us. They reconnoitered by night the condition of the first place, [St. Ignace] upon which they had designs, - which was surrounded with a stockade of pine-trees, from fifteen to sixteen feet in height, and with a deep ditch, wherewith nature had strongly fortified this place on three sides, - there remaining only a little space which was weaker than the others.

"It was at that point that the enemy made a breach at daybreak, but so secretly and promptly that he was master of the place before people had put themselves on the defensive, - all being then in a deep sleep, and not having leisure to reconnoiter their situation. Thus this village was taken, almost without striking a blow, there having been only ten Iroquois killed. Part of the Hurons - men, women and children - were massacred then and there; the others were made captives, and reserved for cruelties more terrible than death.

"Three men alone escaped, almost naked, across the snows; they bore the alarm and terror to another and neighboring village, about a league distant. This first village was the one which we called Saint Ignace, which had been abandoned by most of its people at the beginning of the Winter, - the most apprehensive and most clear-sighted having withdrawn from it, foreboding the danger; thus the loss of it

was not so considerable; and amounted only to about four hundred souls.

"The enemy does not stop there; he follows up his victory, and before Sunrise he appears in arms to attack the village of Saint Louys, which was fortified with a fairly good stockade. Most of the women, and the children, had just gone from it, upon hearing the news which had arrived concerning the approach of the Iroquois. The people of most courage, about eighty persons, being resolved to defend themselves well, repulse with courage the first and the second assault; having killed among the enemy some thirty of their most venturesome men, besides many wounded. But, finally, number has the advantage, - the Iroquois having undermined with blows of their hatchets the palisades of stakes, and having made a passage for themselves through considerable breaches.

"Towards nine o'clock in the morning, we perceived from our house at Sainte Marie the fire which was consuming the cabins of that village, where the enemy, having entered victoriously, had reduced everything to desolation, - casting into the midst of the flames, the old men, the sick, the children who had not been able to escape, and all those who, being too severely wounded, could not have followed them into captivity. At the sight of those flames, and by the color of the smoke which issued from them, we understood sufficiently what was happening, - this village of Saint Louys not being farther distant from us than one league. Two Christians, who escaped from the fire, arrived almost at the same time, and gave us assurance of it.

"In this village of St. Louys were at that time two of our Fathers,- Father Jean de Brebeuf and Father Gabriel Lallement, who had charge of five closely neighbouring villages; these formed but one of the eleven missions of which we have spoken above; we named it the Mission of St. Ignace.

"Some Christians had begged the Fathers to preserve their lives for the glory of God, - which would have been as easy for them as for the more than 500 persons who went away at the first alarm, and had abundant leisure to reach a place of security; but their zeal could not permit them....

"The Iroquois having dealt their blow, and wholly reduced to fire the village of Saint Louys, retraced their steps into that of Saint Ignace, where they had left a good garrison, that it might be for them a sure retreat in case of misfortune, and that the victuals which they had found there might serve them as refreshments and provisions for their return....

"Meanwhile, a part of the Hurons, who are called Atinnaioenten (that is to say, the nation of those who wear a Bear on their coat of arms), having armed in haste, were at hand the next morning, the seventeenth of March, about three hundred warriors, - who, while awaiting a more powerful help, secreted themselves in the ways of approach, intending to surprise some portion of the enemy.

"About two hundred Iroquois having detached themselves from their main body, in order to get the start and proceed to the attack of our house, [Sainte Marie] encountered some advance guards of that Huron troop. The latter straightway took flight after some skirmishing, and were eagerly pursued until within sight of our fort, - many having been killed while they were in disorder in the midst of the snows. But the more courageous of the Hurons, having stood firm against those who joined combat with them, had some advantage on their side, and constrained the Iroquois to take refuge within the palisades of the village of Saint Louys, - which had not been burned, but only the cabins. These Iroquois were forced into that palisade and about thirty of them were taken captives.

"The main body of the enemy, having heard of the defeat of their men, came to attack our people in the very midst of their victory. Our men were the choicest Christians of the village of la Conception, Ossossone and some others of the village of la Magdelaine. Their courage was not depressed, although they were only about one hundred and fifty. They proceed to prayers, and sustain the assault of a place which, having been so recently captured and recaptured, was no longer adequate for defense. The shock was furious on both sides, - our people having made many sallies, notwithstanding their small number, and having often constrained the enemy to give way. But, - the combat having continued quite far into the night, -

as not more than a score of Christians, mostly wounded, were left, the victory remained wholly in the hands of the Infidels. It had, however, cost them very dear, as their Chief had been seriously wounded, and they had lost nearly a hundred men on the spot, of their best and most courageous."

PLATE I

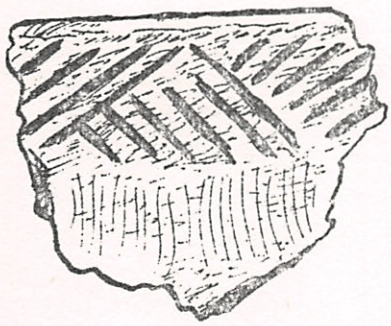
Rim and shoulder pottery sherds. (Half size)

1, 2, 3. Rim sherds. (Cat. nos. St47, St203, St6)

4. Shoulder sherd. (Cat. no. St2)

5. Rim and shoulder sherd. (Cat. no. St159)

PLATE 1



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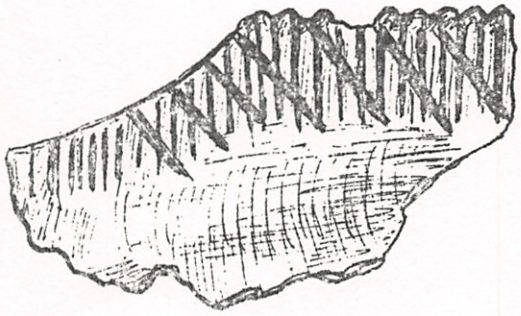

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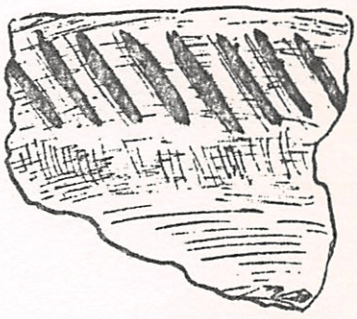

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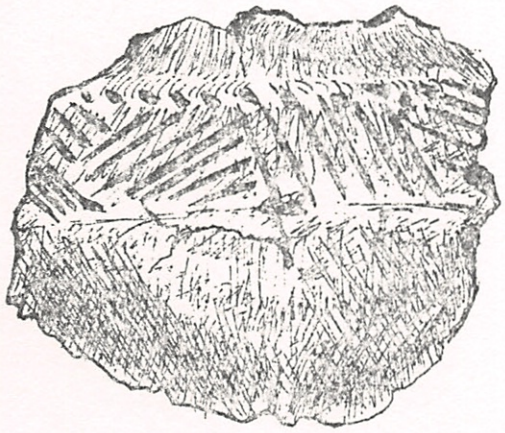

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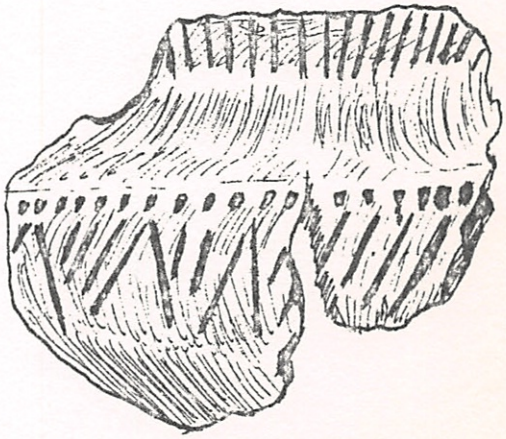


5

PLATE II

Rim sherds bearing Castellations. (Half size)

1. Rim sherd with bifurcated castellation. (Cat. no. St. 161)

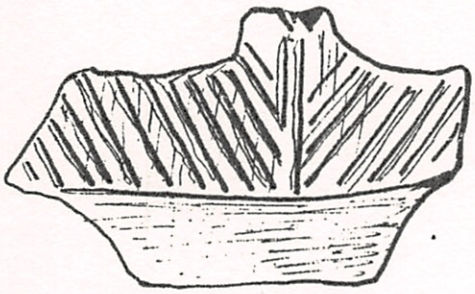
2. Rim sherd with squared castellation and broken handles (Cat. no. St. 317)

3. Rim sherd with castellation centred by deep groove (Cat. no. St. 476)

4. Rim sherd with rounded, well separated points (Cat. no. St. 473)

5. Rim and shoulder sherd, projecting at squared castellation. (Cat. no. St. 415)

PLATE 2



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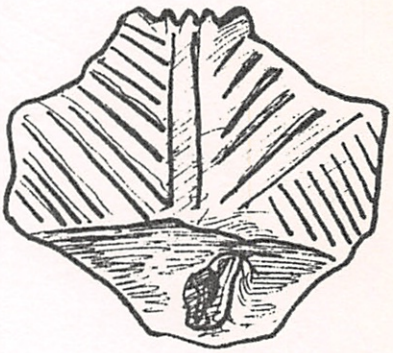

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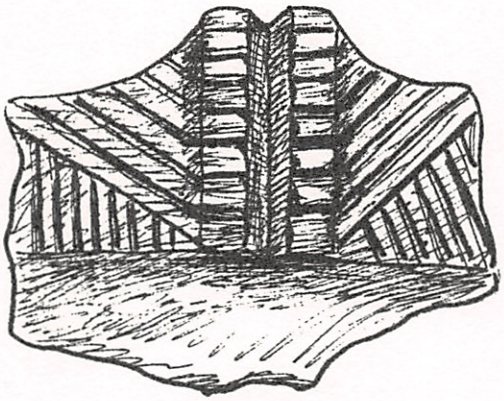

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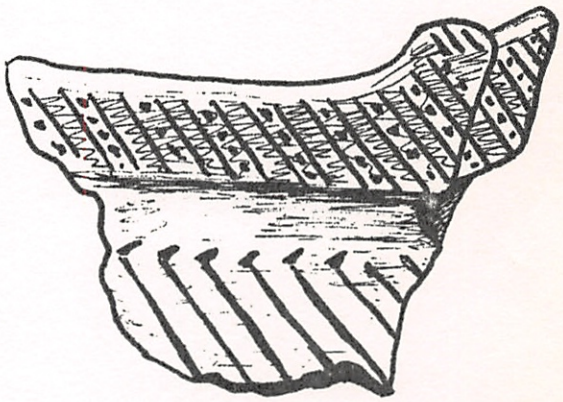

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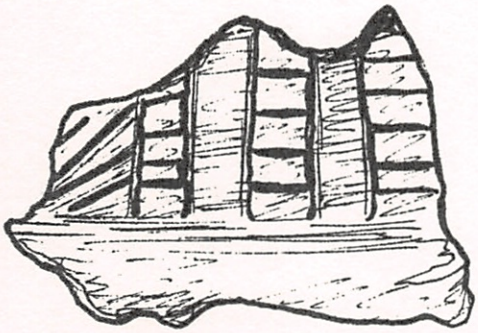

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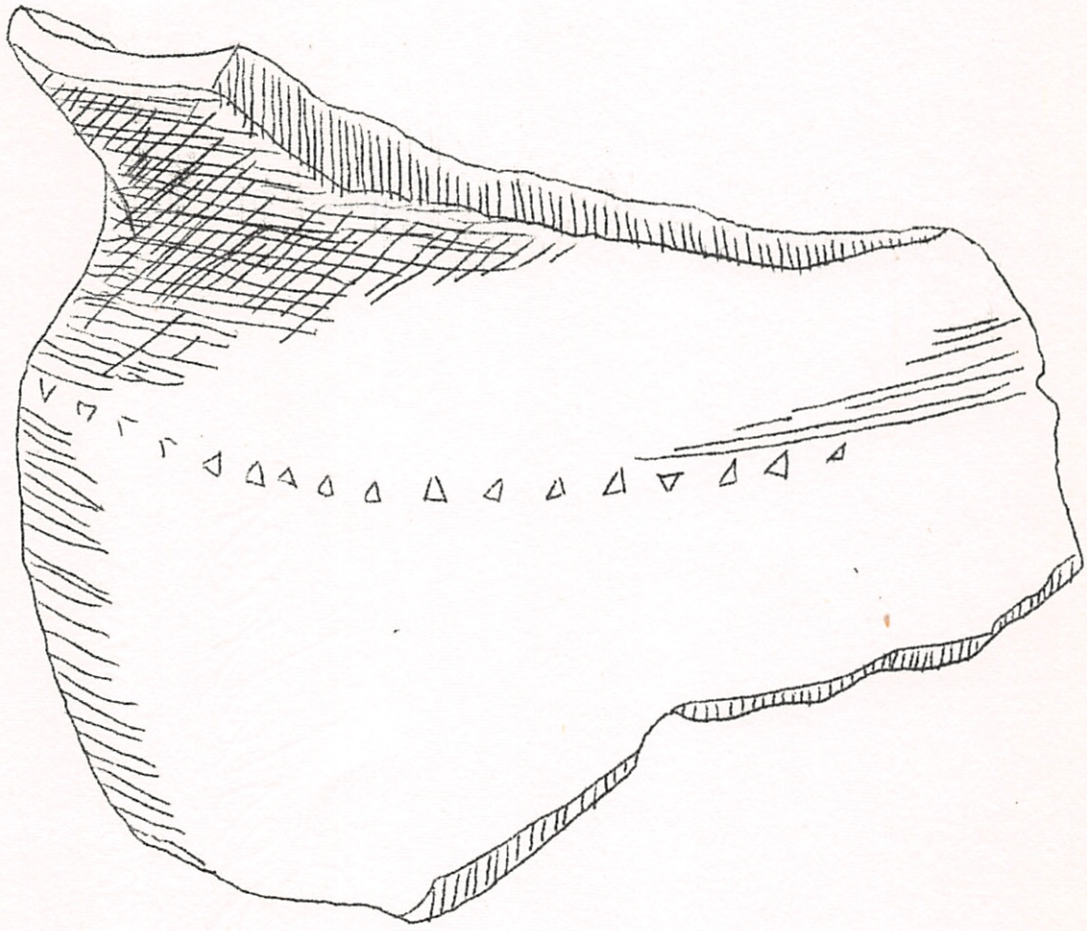
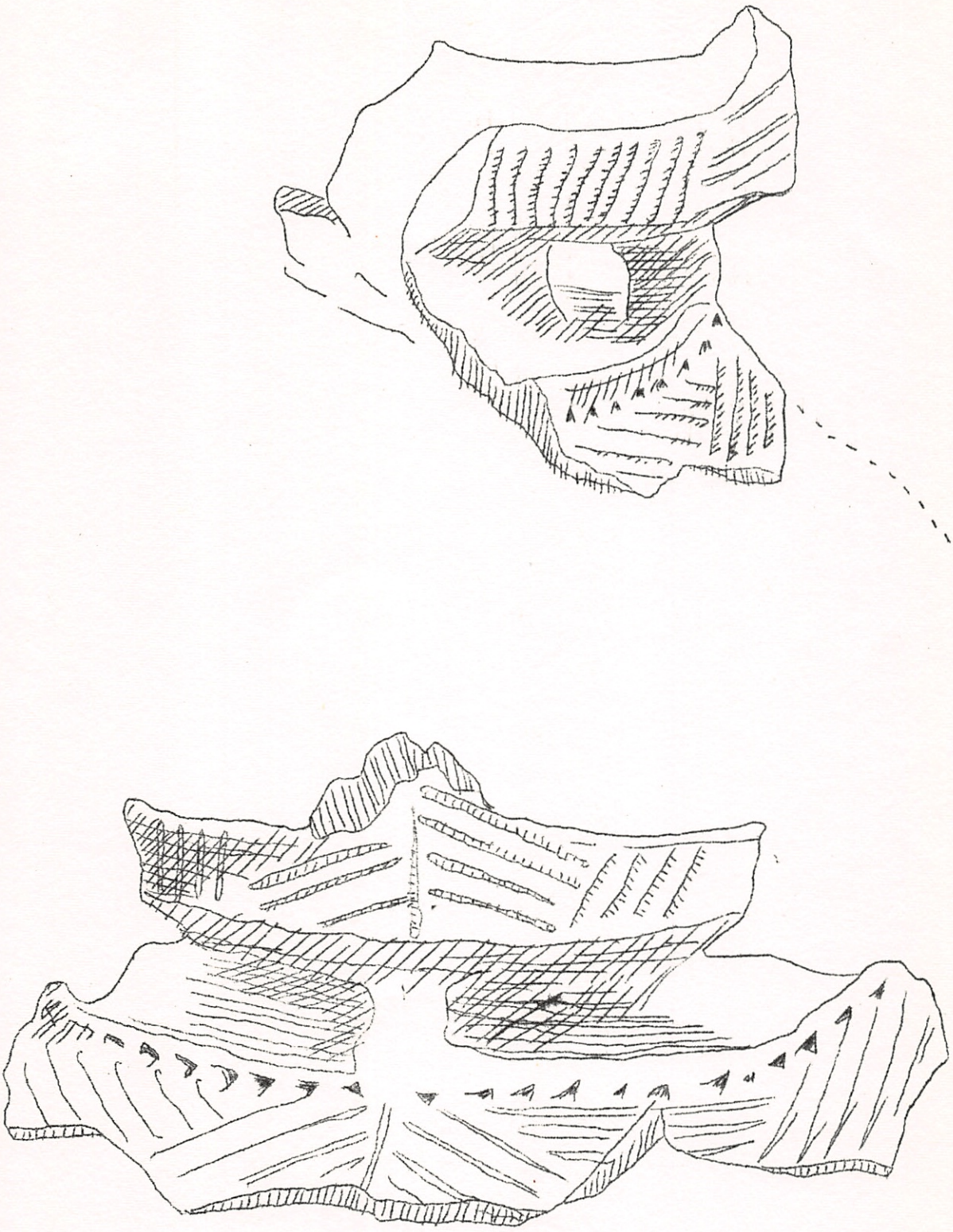


Pottery, plain



Pottery, platform rim, or flat top

PLATE III

Artifacts of bone, shell and fish. (Half size, except no. 9)

1. Harpoon. (Cat. no. St. 28)
2. Pottery marker. (Cat. no. St. 22)
3. Awl. (Cat. no. St. 497)
4. Netting needle, curved. (Cat. no. St. 27)
5. Netting needle, straightened. (Cat. no. St. 26)
6. Antler tip awl. (Cat. no. St. 46)
7. Pins from fish bones. (Cat. no. St. 530)
8. Comb. (Cat. no. St. 41)
9. Mask. (Cat. no. St. 514) Twice natural size.
10. Clam shells. (Cat. nos. St. 309; St. 310)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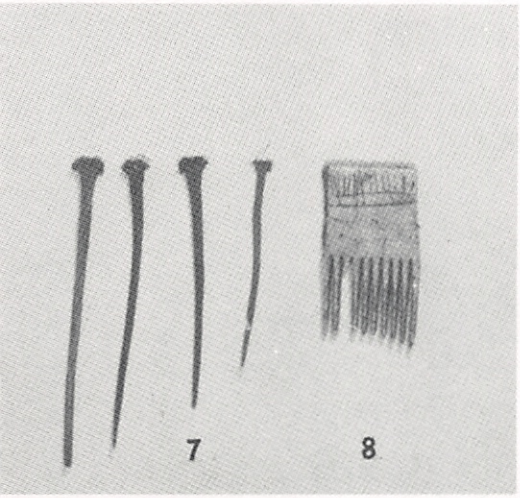
9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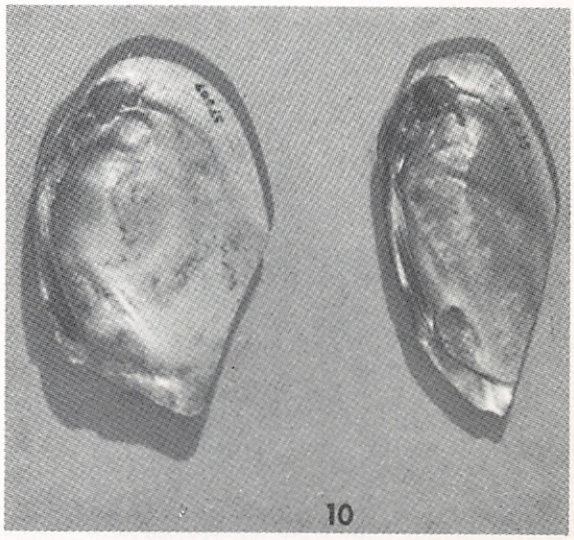
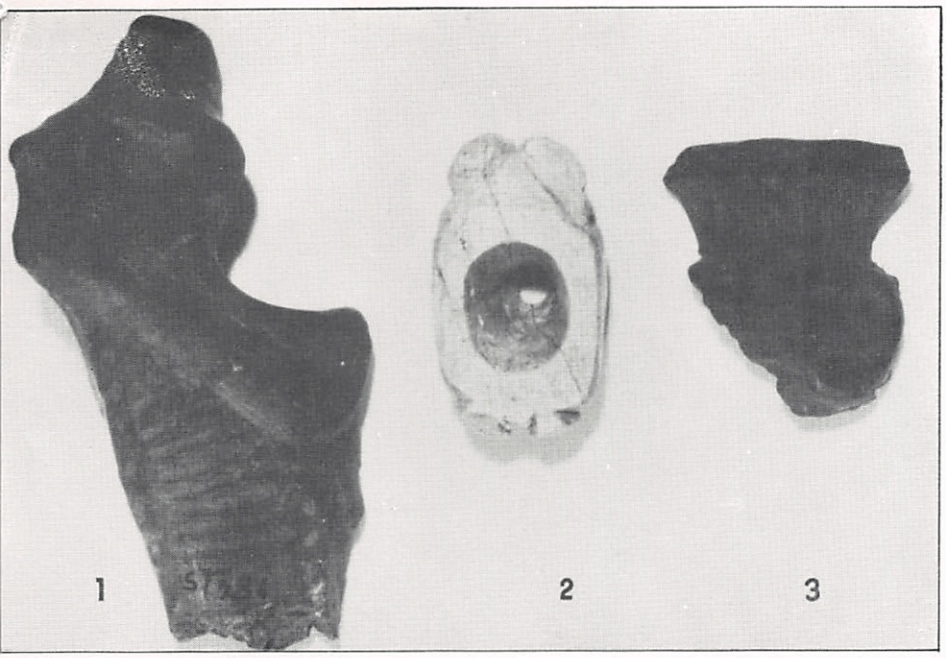

10

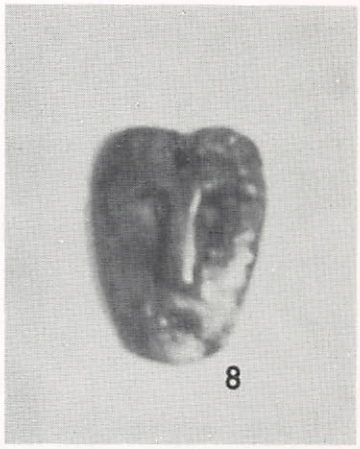
PLATE IV

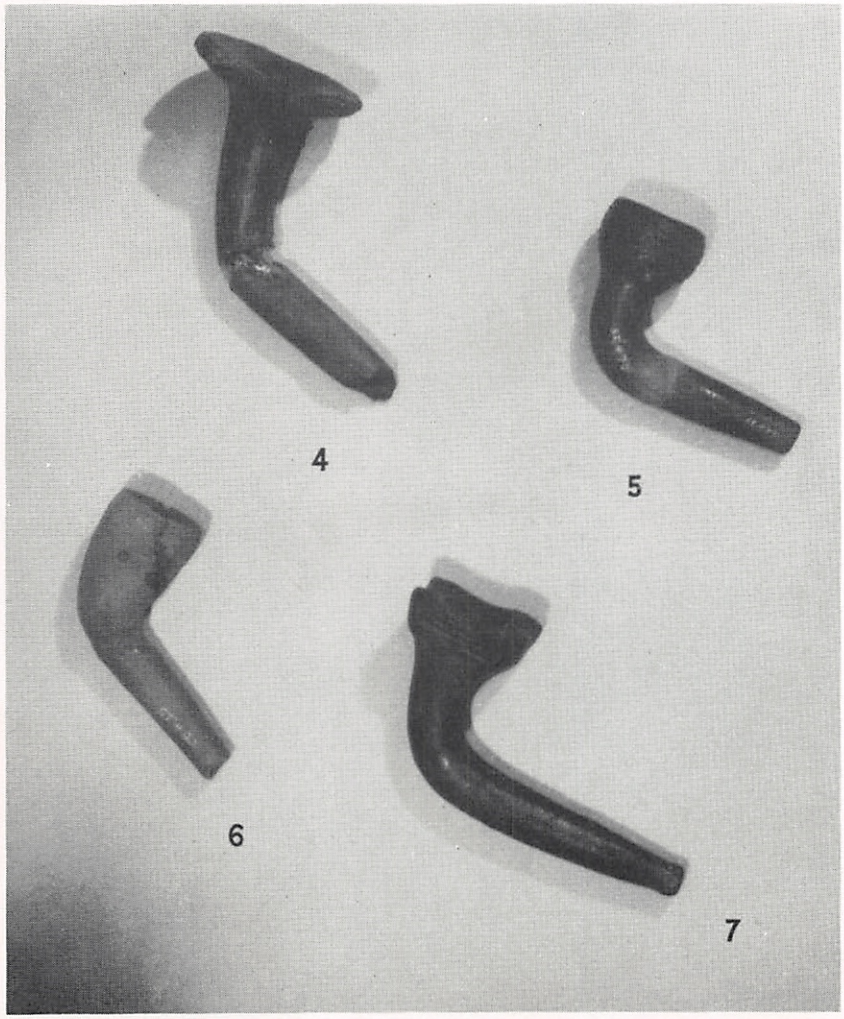
Clay and stone pipes, and pendants.

1. "Pinched faced" effigy from pipe bowl. (Cat. no. St. 236)
2. Soapstone pipe bowl. (Cat. no. St. 506)
3. Portion of pipe bowl. (Cat. no. St. 601)
4. Pipe with trumpet shaped bowl. (Cat. no. St. 144)
5. Pipe with bulbous shaped bowl. (Cat. no. St. 477)
6. Pipe with cone shaped bowl. (Cat. no. St. 482)
7. Pipe with castellated bowl. (Cat. no. St. 32)
8. Steatite pendant. (Cat. no. St. 513)
9. Clay pendant. (Cat. no. St. 35)

PLATE 4







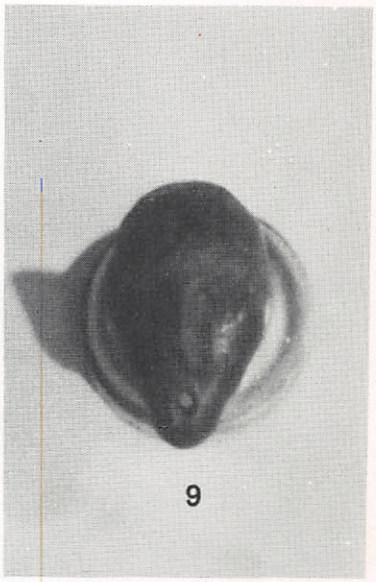
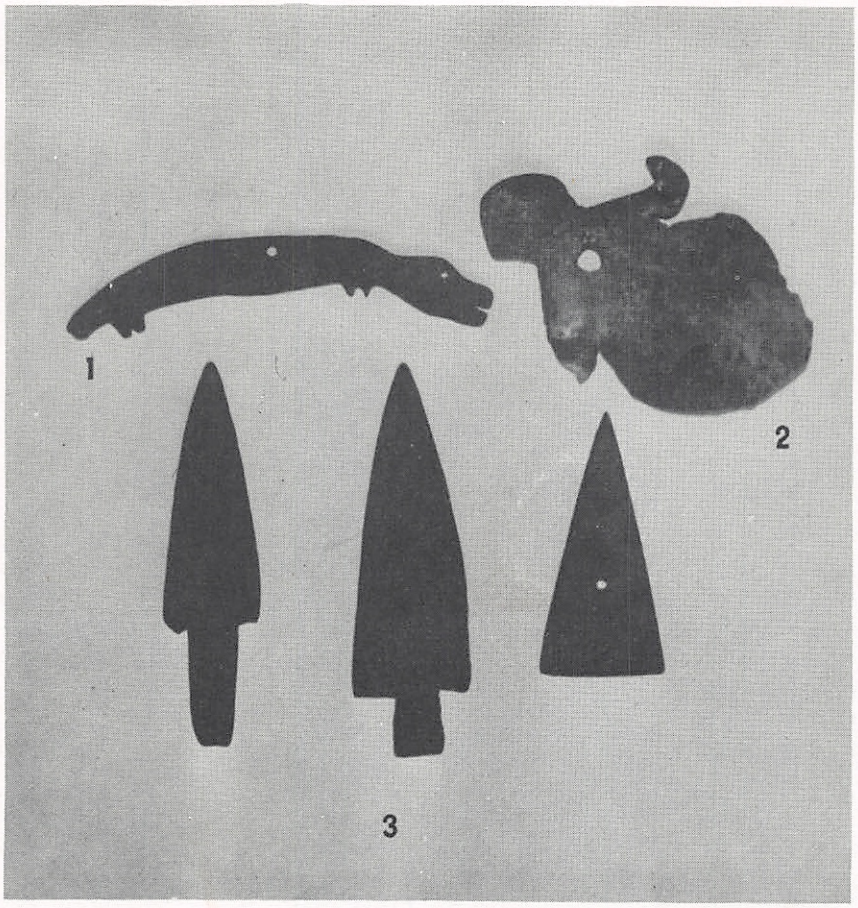


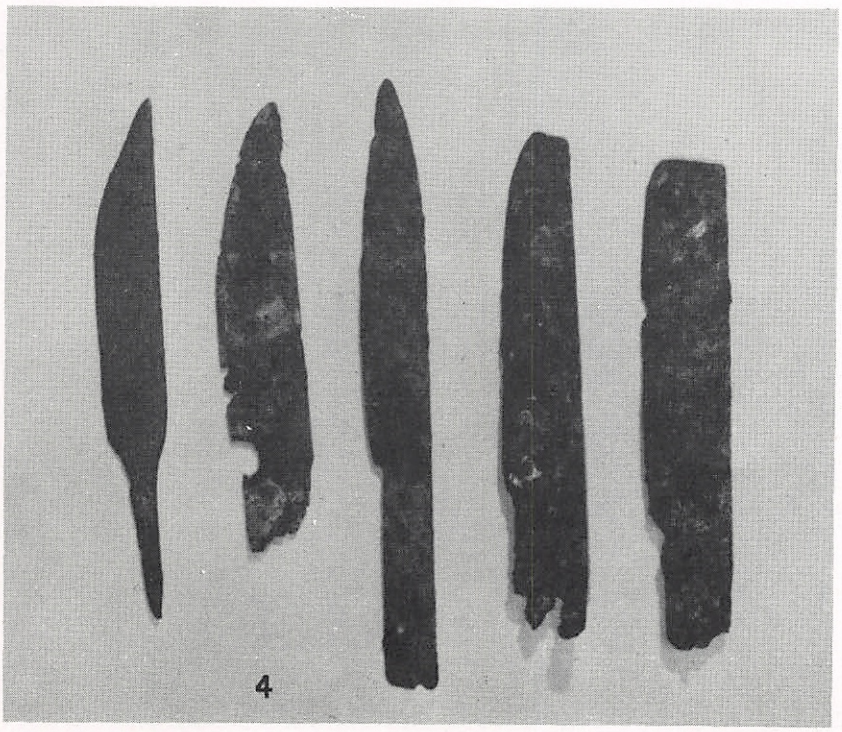
PLATE V

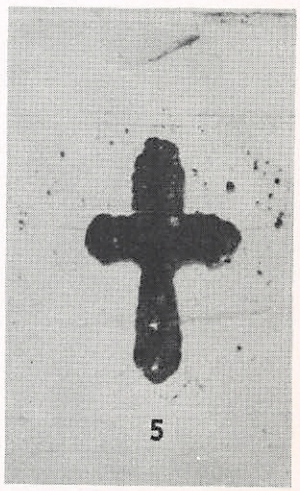
Objects of copper, lead and iron. (Half size)

1. Copper pendant in lizard form. (Cat. no. St. 520)
2. Lead pendant in turtle form. (Cat. no. St. 519)
3. Copper projectile points. (Cat. nos. St. 42, 521, 522)
4. Iron knives. (Cat. nos. St. 197, 198, 579, 470, 338)
5. Cross. (Cat. no. St. 29)

PLATE 5

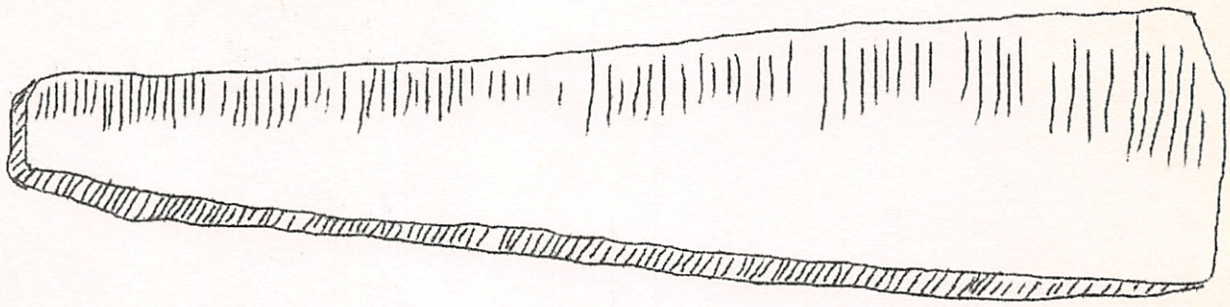






Iron and brass objects

1. Wedge made from iron axe natural size (Cat. no. St. 146)
2. Brass awl natural size (Cat. no. 504)
3. Nails and staple natural size (Cat. no. St. 490; 43)
4. Iron axe half size (Cat. no. St. 235)



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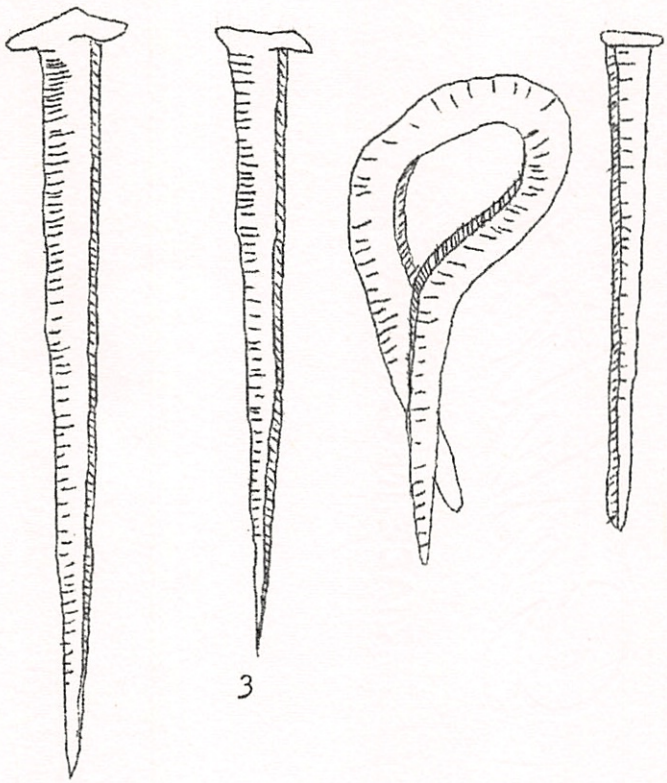

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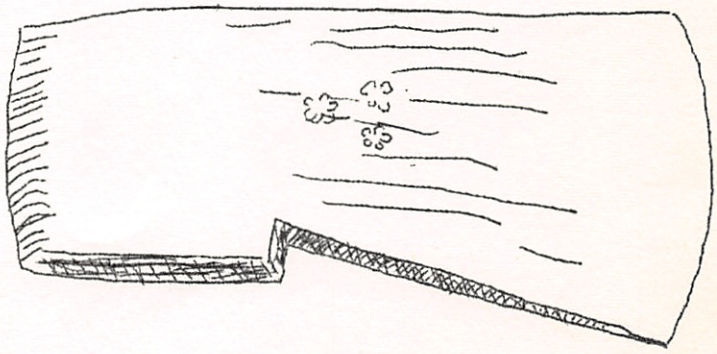

half size

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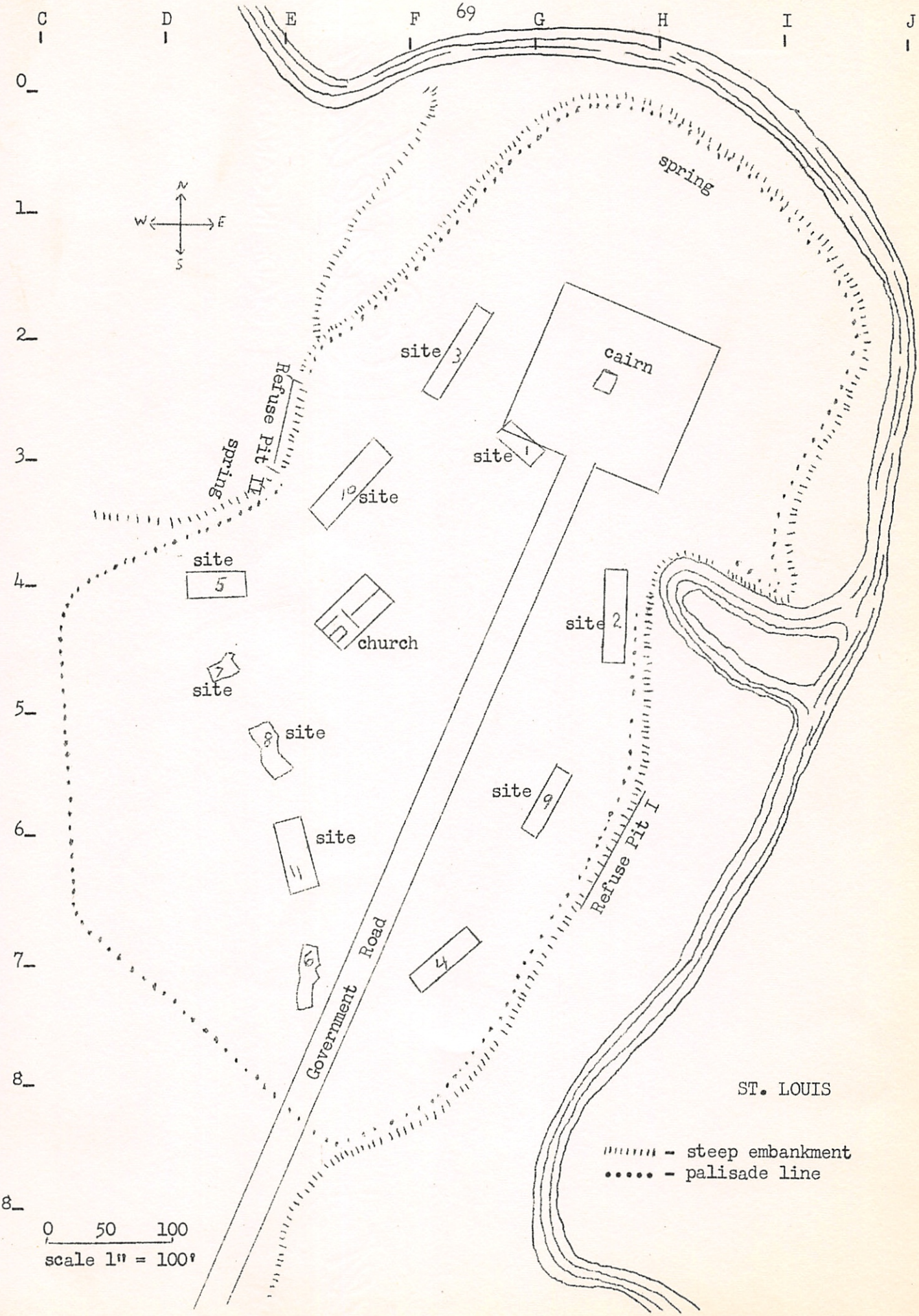
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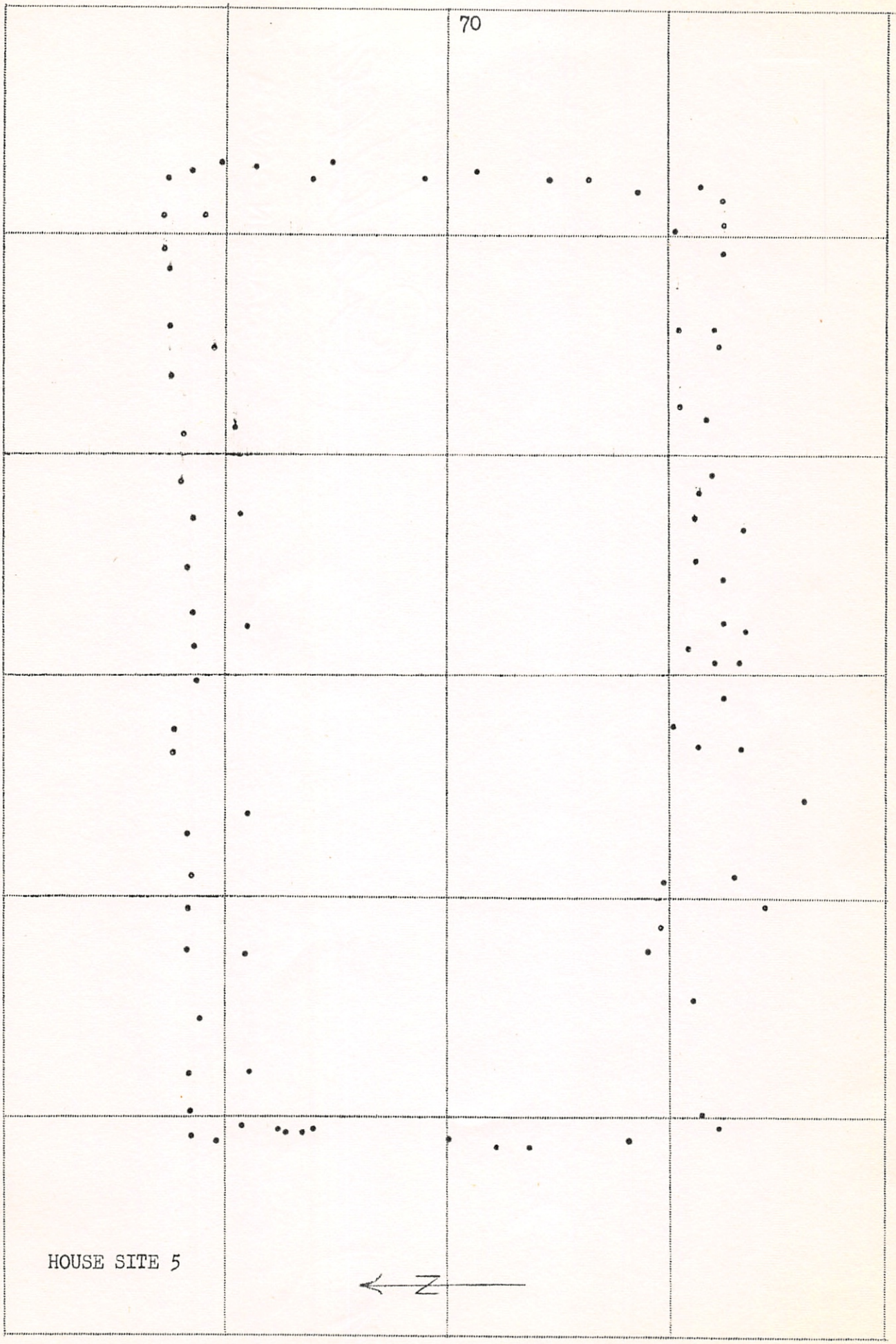
site 3
cairn
Refuse Pit II
site 1
spring
site 10
site
site 5
church
site 2
site 7
site
site 8
site
site 9
site 11
site
Refuse Pit I
Government Road
site 6
site 4
ST. LOUIS
- steep embankment
- palisade line
0 50 100
scale 1" = 100'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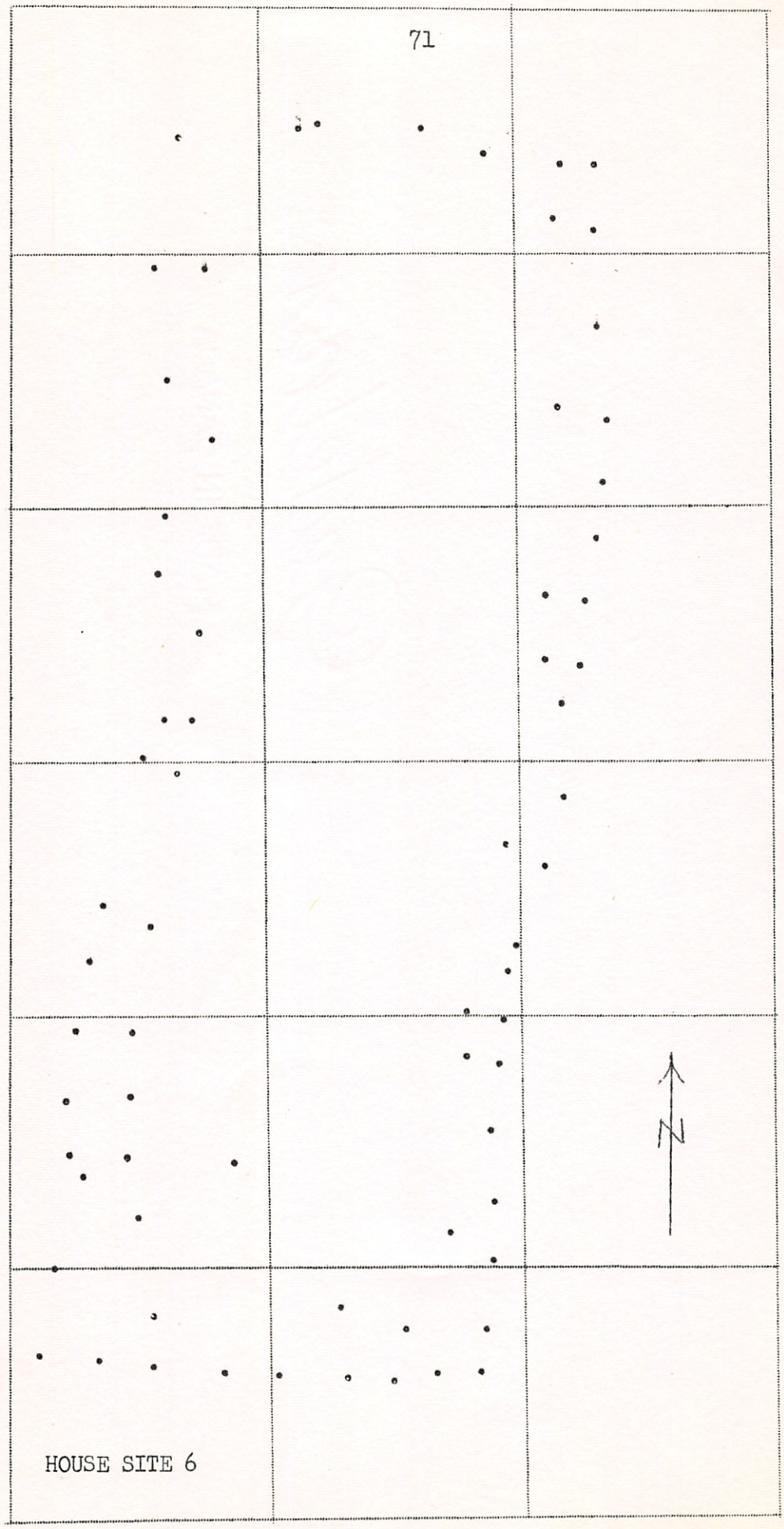
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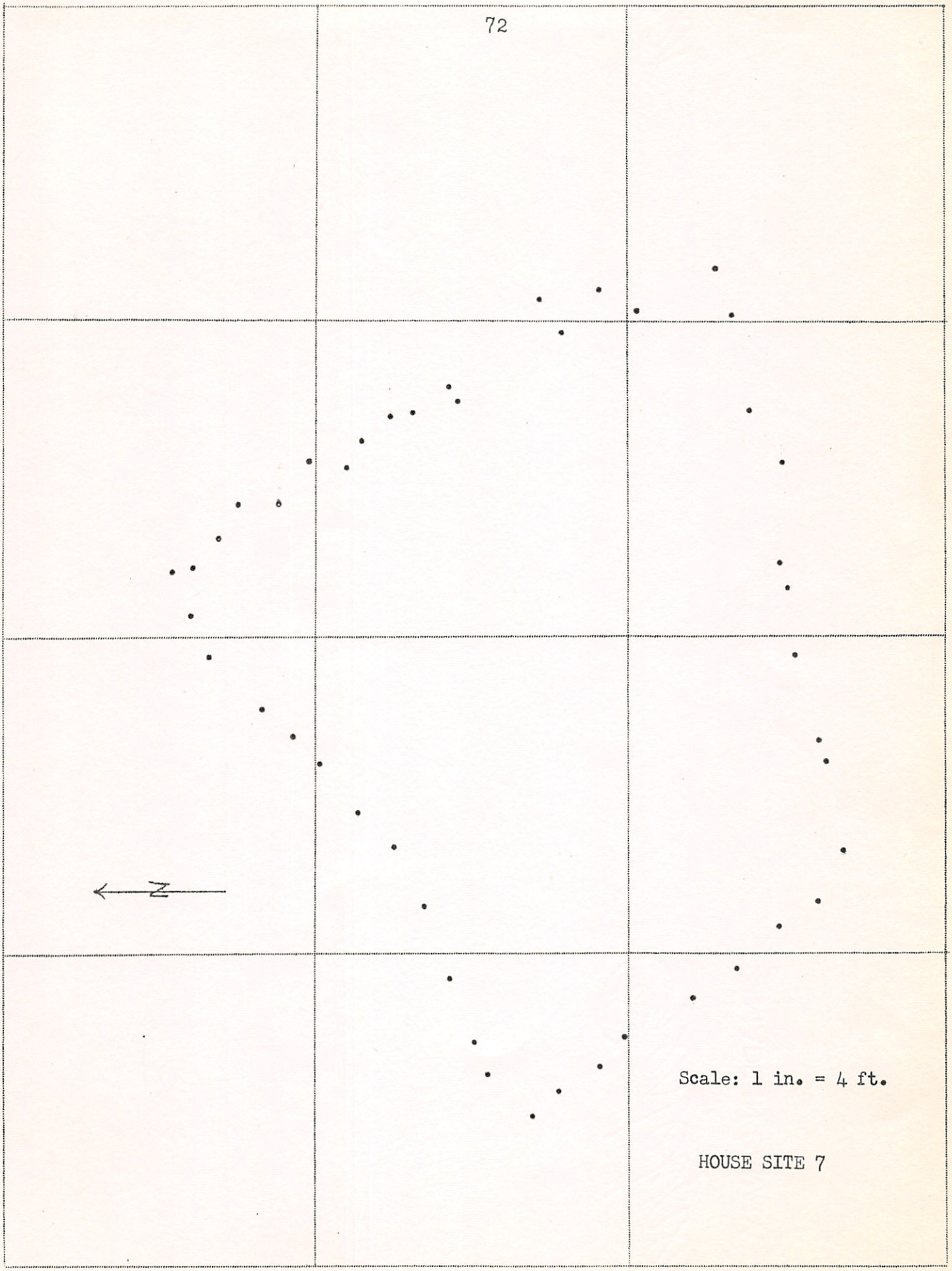
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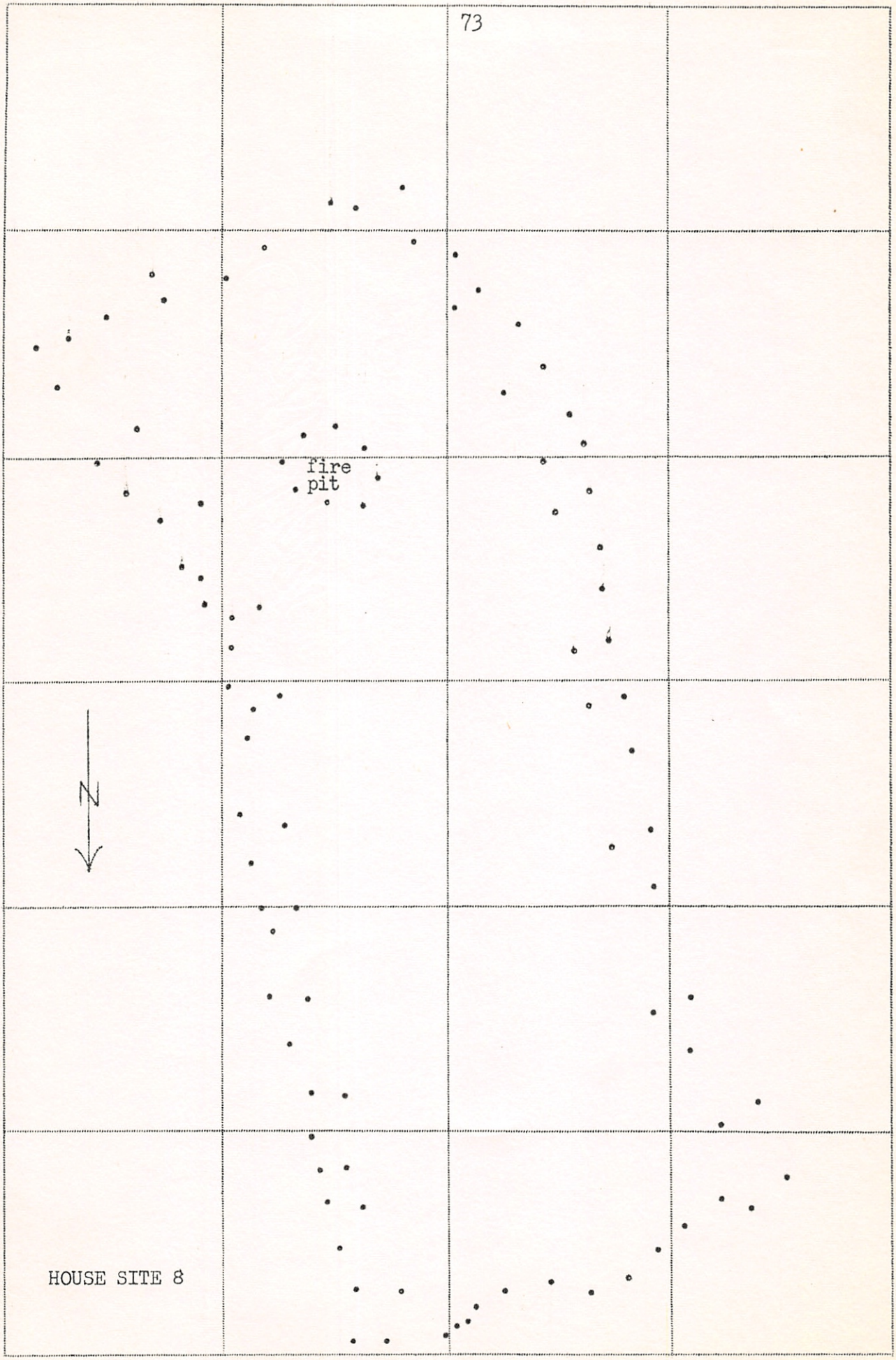
Scale: 1 in. = 4 ft.
HOUSE SITE 7


fire
pit
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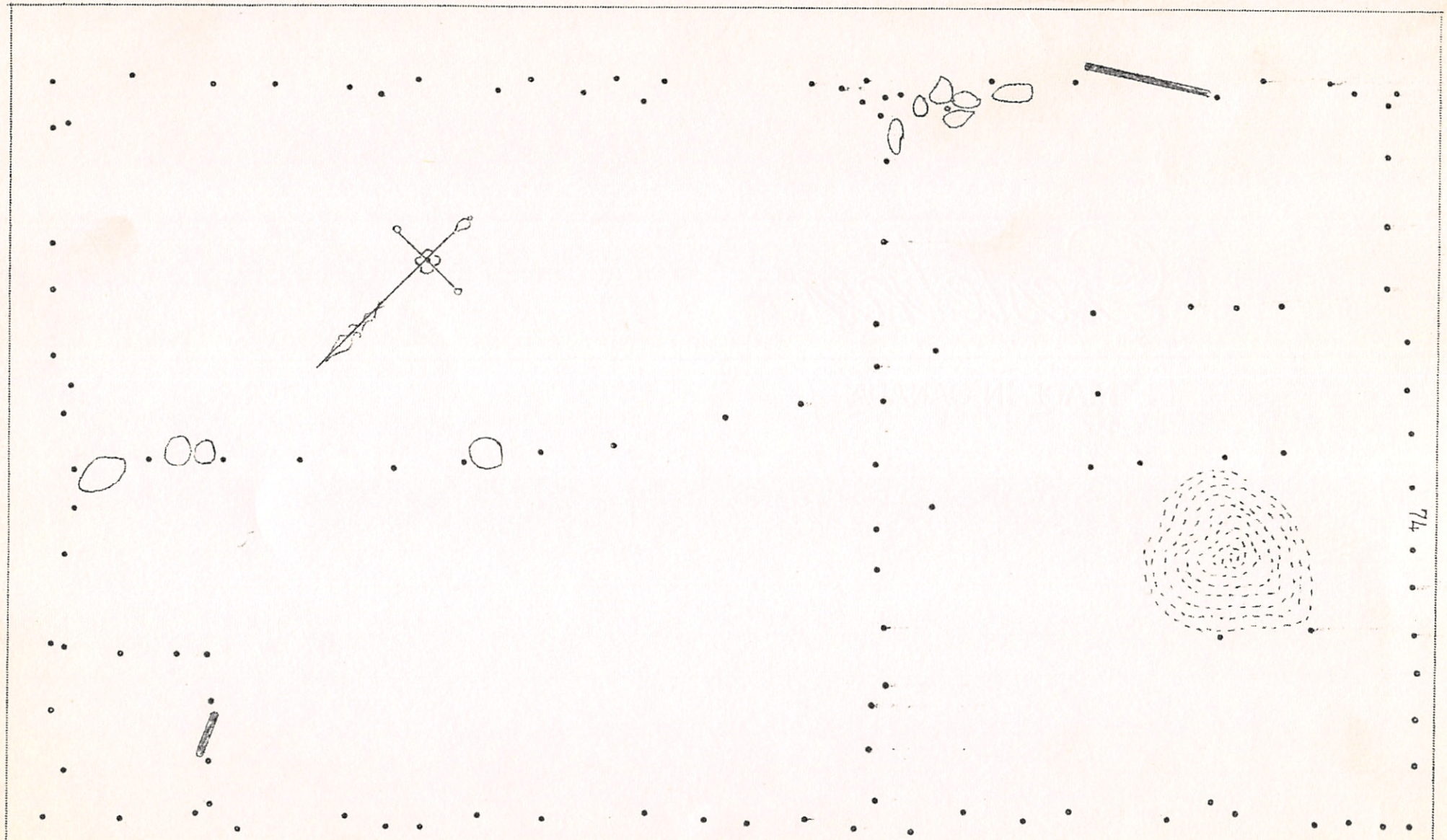
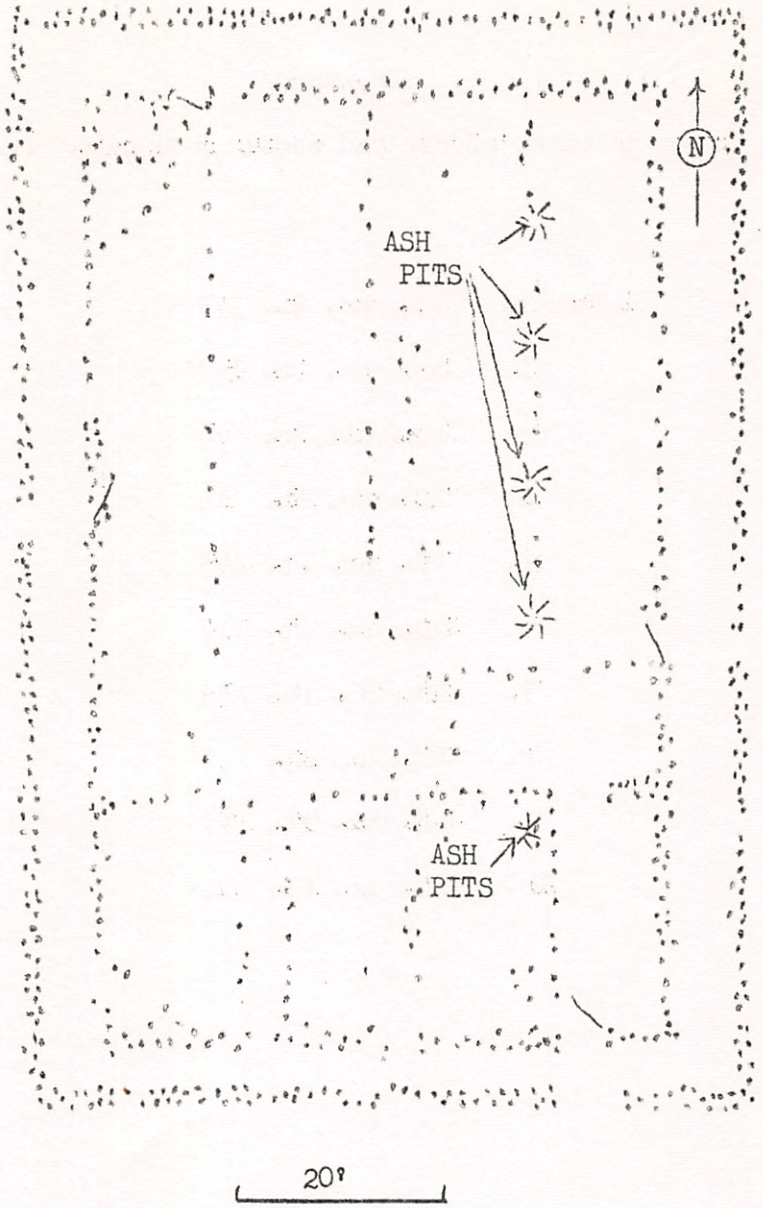
HOUSE SITE 8
0 1 5 10



SITE OF CHURCH, ST. LOUIS

0 6 12



SITE OF CHURCH, SAINT IGNACE

99' x 30'

Drawing

Cross sections of rim and shoulder sherds. (Half size)

Figure 1. Cat. no. St. 379

2. Cat. no. St. 159

3. Cat. no. St. 10

4. Cat. no. St. 16

5. Cat. no. St. 475

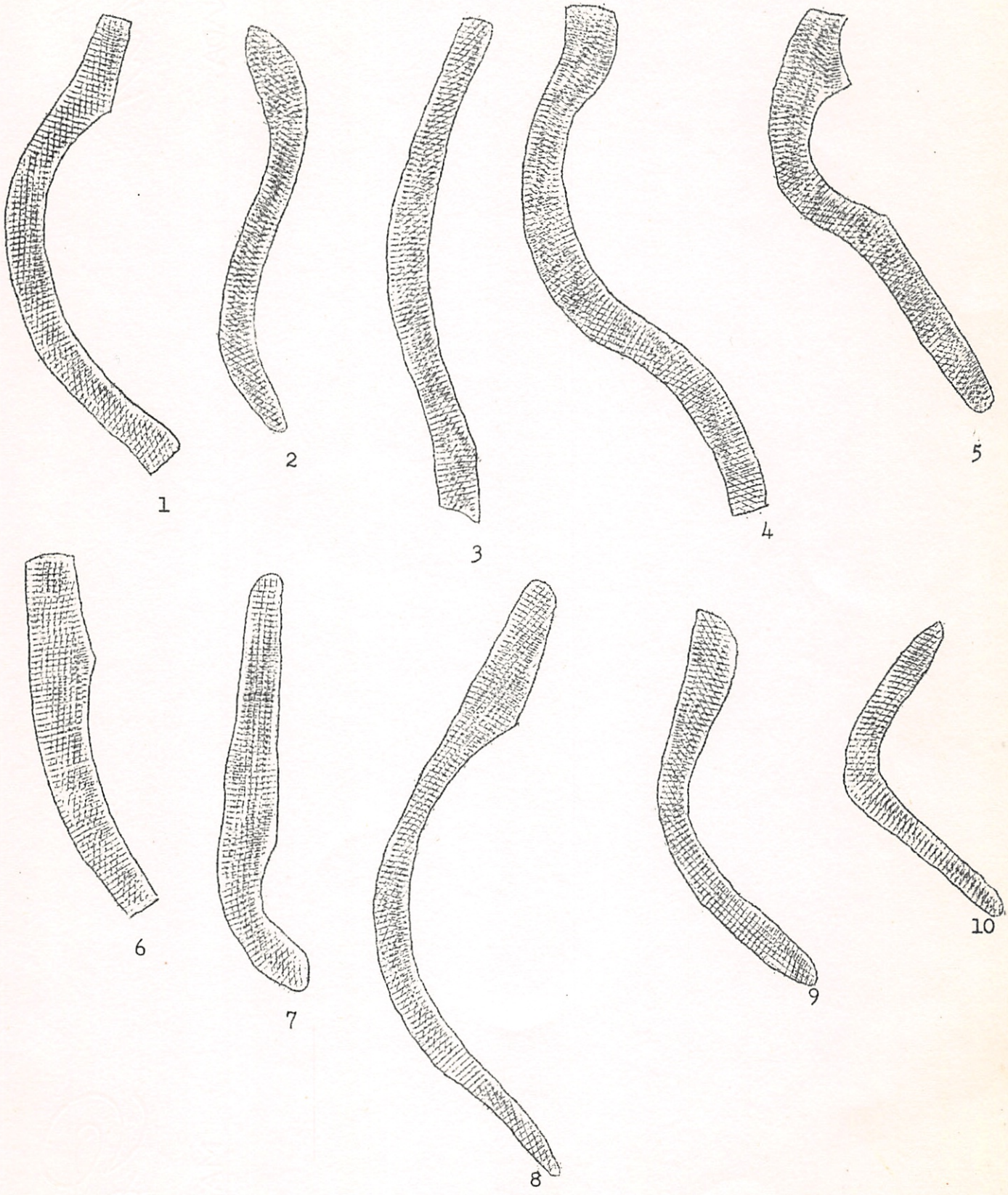
6. Cat. no. St. 117

7. Cat. no. St. 473

8. Cat. no. St. 1

9. Cat. no. St. 227

10. Cat. no. St. 224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