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INDIAN SITES BELOW THE FALLS OF THE RAPPAHANNOCK, VIRGINIA

(WITH 21 PLATES)

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green

black IIa7

blue



IVbb7
red body
3 blue stripe
in center
of white



green
core

IVbb*
red body
4 black(?) in center
of white stripe



green
core

redwood
body IVa5



green
core

blue IIb70
body



blue IIa55



redwood
IIIa3



green
core

white Iab
(ivory)



IaB?
lite blue



bluish-
white
W1c



crystal



crystal



TRADE BEADS FOUND AT LEEDSTOWN. NATURAL SIZE

c.1550-1600

Specimen *e*. Hammerstone; a quartzite pebble about 2 inches thick. Deeply pitted on the two opposite surfaces.

Specimen *f*. Hammerstone formed of a piece of coarse sandstone. Both surfaces deeply pitted.

Specimen *g*. Mortar made of an irregular block of coarse, dark brown sandstone.

Plate 9 (upper part).—Specimen *a*. Massive implement formed of a piece of coarse quartzite which had been struck from a boulder. It appears to have been attached to a handle and used as a hoe.

Specimens *b*, *c*, and *d*. Three hammerstones made of diabasic rocks, with surfaces showing different degrees of weathering.

Specimen *e*. Small quartzite pebble which had been used as a hammerstone.

Specimen *f*. A very roughly chipped implement made of diabase, with surface deeply weathered.

CACHE OF TRADE BEADS

A cache of trade beads found at Leedstown a few years ago proved to be of great interest. Examples of the beads are shown in plate 1, but before describing them in detail and telling of the locality and manner in which they were encountered, it will be well to refer briefly to the manufacture and use of glass beads by the early colonists at Jamestown.

Beads of many sorts were known to the Virginia Indians in pre-historic times; consequently, those brought by the first settlers—being of a new and unknown material and often of a brilliant color—became of the utmost importance when trading with the natives. So important were they that it was soon decided to manufacture some in the colony, rather than to import all from Europe, and it is evident that quantities were thus produced at a house erected for that purpose not far from Jamestown.

On April 30, 1607, before arriving at the site of future Jamestown, some of the English landed and visited the Indian village of Kecoughtan, about the position of the present Hampton, where they were treated kindly by the natives. The English were offered food and, so the narrative continues (p. lxiv):²⁸ "After we were well satisfied, they gave us of their Tobacco, which they tooke in a pipe made artificially of earth as ours are, but far bigger." A dance followed and when it had ended "the Captaine gave them Beades and other trifling Jewells."

²⁸ Percy narrative in Smith, *op. cit.*

When trading with the Indians, during the summer of 1608 at a time when Powhatan was present, the colonists received a large quantity of corn in exchange for "a pound or two of blew beads." About this time the first glass was made at Jamestown.

The spring of 1609 found the colonists engaged in many endeavors; houses were being erected, a well was dug, and they "produced a tryall of Glasse." This was done at "the Glasse-house, a place in the woods there a myle from James Towne,"²⁰ which had probably been erected during the preceding year. To what extent beads were then made or were produced during the years that immediately followed, is not known.

The second attempt to establish glass making in the colony was a more serious consideration. On June 11, 1621, at a Court held for Virginia,²⁰ "Intelligence was given y^t one Cap^t: Norton made an offer & would undertake to procure 6 straungers skillfull in makinge of Glasse and Beads to goe over to Virginia to be employed in the saide worke for the Company for no other consideraçon then onely the halfe profitts of their labo^rs . . ." The proposition was accepted by the Company on June 13, and Norton agreed to "carry over with him 4 Itallyans and two servants of his owne . . . which six psons shall within three moneths after their Arivall in Virginia sett upp a Glass ffurnace and make all manner of Beade & Glasse . . ."

But it soon became known that the cost of the undertaking would be greater than anticipated and that the Company "were not able to goe through wth itt." It was then deemed best to let it be "free to pryvate Adventurers to undertake the same . . ." And so Captain Norton was released from his agreement. This was on July 16, 1621, and as stated by "certaine adventurers now present they did now acquainte this Courte that itt was not their intent therby utterly to exclude the Company from a buisness of this speciall consequence unto them all (seeinge the Comoditie of Beads was like to prove the Verie Coyne of that Country) . . ."

In the "Instructions to the Governor and Council of State in Virginia,"²¹ dated July 24, 1621, is included the following: "Item whereas Cap^t William Norton and certaine Itallians now by the general Company and other worthy mynded adventures att a verie

²⁰ Smith, *op. cit.*, p. 467.

²⁰ *In* The Records of the Virginia Company of London, vol. 1, p. 484. Library of Congress, Washington, 1906.

²¹ *In* The Records of the Virginia Company of London, vol. 3, p. 477. Library of Congress, Washington, 1933.

great charge sent for the erecting of a glasse furnace in Virginia wee hartlylie desire yow to afford them all favor possible.²⁷

It is evident the Company in London feared that bartering too many beads with the Indians would lessen their relative value, and in a letter to the Governor and Council in Virginia, dated August 12, 1621, stated (op cit., p. 495): "The makinge of beade is one of Cap^t Nortons cheife employmente w^{ch} beinge the mony you trade wth the natives we would by no meanes have through to much abundance vilified or the Virginiane at all pmitted to see or und^rstand the manufacture of them: wee therefore pray you seriously to consider what proportion of beade can be vented and their worth not abated, and intimate the proportion to Cap^t Norton and his Italiany and certifie the same to us in yo^r next letters, that accordinglye ye may limitt the quantitie that shall from time to time be made."

The importance of beads, and of blue glass beads in particular, was thus acknowledged,²⁸ and it is evident that vast quantities were made and traded to the Indians.

The use of beads was frequently mentioned in the early records of the colony. One such account of more than usual interest forms part of the Minutes of the Council and General Court.²⁹ At a Court held at Jamestown, November 8, 1624, Robert Poole told the while on a trading voyage, "wherein he was employed for Mr Thresurer," he had bought corn from the Indians, and had exchanged "thirteene armes length of some beades for Another Tubb [of corn]." "Further he sayeth y^t Capt Croshaw gave for a great Canoe w^{ch} he bought 10000 of blew beades, saying y^t he would give Mr Thresurer satisfaction for the beds.

"Also he sayeth y^t he paide for matts 20000 of blew beades, of w^{ch} matts there was used to seele ye shipp 20. And

"Further he sayeth that he gave to the great man of Potuxsea to be their guid to Pocotonck 6 or 800 of blew bead."

From this it may be assumed that innumerable blue glass beads, made at Jamestown, served the treasurer of the Colony as a medium of exchange when dealing with the Indians.

Happenings in England during the early years of the seventeenth century undoubtedly led to the endeavor to establish a glasshouse in

²⁷ Strachey, in his "Dictionarie of the Indian Language" gave "Blew beades, vnetagwushomon."

²⁸ The Virginia Magazine of History and Biography, Vol. 21, p. 46, Virginia Hist. Soc., Richmond, 1913.

Virginia. In 1615 "the importation of foreign glass into England was prohibited but 5 years later permission was granted to import "rare and curious glasses." About that time, 1620, "an attempt was made to set up glass works in Scotland," with workers from Venice. If beads were included among the articles that were not to be imported from a foreign country, which would have included Venice, it became necessary to make all that were required for the Indian trade. Such may have been the reason for the establishment of the industry at Jamestown in 1621.

DISCOVERY OF THE BEADS

Just east of the triangular tract, within the shadowed area in the aerial photograph (pl. 2), the river bank rose normally some 6 or 8 feet above the gravelly beach. At some time in the past the bank had been cut away for a distance of more than 150 feet, and the surface for a like distance back from the water had been graded, thus forming a level area approximately 150 feet square sloping gradually to the edge of the water. In the middle of the far boundary of the graded area, facing and paralleling the river and 8 or 10 feet higher than the beach, are the remains of an ancient brick foundation, and about midway between this and the river are other bricks which appear to be part of a wall. Locally, and traditionally, this graded square is known as the Old Arsenal, a term which during the seventeenth and eighteenth centuries would have applied to a place where boats were built, also where arms and all military equipments were manufactured or stored. Such was probably the site at Leedstown, with the customhouse nearby.

The graded square has long been cultivated. When the ground was plowed early in the spring of 1925, a few beads were found on the surface near the center of the area. That night, as related by an old negro who lives nearby, a heavy rain fell and the following morning many beads were scattered over a very limited space. This caused a search for more, and soon great numbers of beads were encountered a few inches below the soil that had been disturbed by the plow.

The 13 varieties of beads illustrated in plate 1 are thought to include examples of all that were discovered in the cache. There may have been others, but if so, they have not been traced. Their history is not known, nor has it been possible to determine when or for what reason

*Nesbitt, Alexander. Glass. New York, 1879. This is one of the South Kensington Museum Art Handbooks.

they were placed as found. All may have been contained in a wooden keg or box which decayed and disappeared, thus allowing the beads to remain closely embedded in the surrounding earth.

The beads will be described and references made to identical or similar specimens from other localities that are now preserved in the collections of the United States National Museum, and to some that have been received at the Museum during the past 2 years for study or identification, but which have not remained in the collections. Many other kinds of beads occur on the sites, but only those resembling the specimens from Leedstown will now be considered.

Two of the 13 varieties found in the cache prove to be of the greatest interest and later will be described in detail. The first three, top row of the plate, are types that were widely distributed by the traders; they have been made for centuries and may still be obtained. As they are so numerous and so scattered, no specific references will be made to sites where they have been discovered.

Top row.—Left, transparent or translucent glass, light green; middle, opaque glass, black; right, transparent or translucent glass, medium shade of blue.

→ *Second row.*—Core transparent or translucent green glass, with thin glaze³⁵ of red glass covering entire surface. Over the surface of the red glaze are three groups of parallel lines, each group consisting of three lines, alternating white, blue, white.

Similar beads: Tennessee, Sullivan County, U.S.N.M. no. 136810; Alabama, Madison County, Hobbs Island in Tennessee River; Georgia, Bibb County, Macon; Pennsylvania, Bainbridge County, burial, U.S.N.M. no. 35773.

Third row.—Core transparent or translucent green glass, with thin glaze of red glass covering entire surface. Over the surface of the red glaze are four groups of parallel lines, each group consisting of three lines, alternating white, black, white. No other examples traced.

Fourth row.—Core translucent or transparent green glass, with thin glaze of red glass covering entire surface.

³⁵ Beck, Horace C., Classification and nomenclature of beads and pendants. In *Archaeologia* . . . Published by the Society of Antiquaries of London. 2d ser., vol. 27, Oxford, 1928.

P. 55: "Glaze is a form of glass. It can vary very much in its composition, but it always contains silica and an alkali."

P. 56: "When a bead has been covered with a thin layer of vitreous enamel or glaze, it is called a *Glazed bead*."

Similar beads: Tennessee, Sullivan County, U.S.N.M. no. 136810; North Carolina, Mecklenburg County, burials, U.S.N.M. no. 138808; Georgia, Bibb County, Macon, 1935, burials on plateau, also from surface of Mound D; Florida, Pinellas County, Maximo Point, Tampa Bay, beads somewhat smaller, U.S.N.M. no. 35775; Maryland, Prince Georges County, burial near Piscataway, U.S.N.M. no. 5839; New York, Monroe County, near Brockport, U.S.N.M. no. 16685.

Fifth row.—Translucent or transparent dark blue glass, longitudinally striped with fine lines of opaque white glass.

Similar beads: California, Santa Barbara County, Santa Rosa Island, U.S.N.M. no. 20236.

Sixth row.—Translucent or transparent dark blue glass.

Similar beads: Tennessee, Sullivan County, U.S.N.M. no. 136810; Alabama, Cherokee County, site on Coosa River, U.S.N.M. no. 99217; Alabama, Elmore County, near junction of Coosa and Tallapoosa Rivers, site of Fort Jackson, earlier old French Fort Toulouse, U.S.N.M. nos. 91557 and 91564; Alabama, Madison County, Hobbs Island in Tennessee River; Georgia, Bibb County, Macon, burial on the plateau, 1935; North Carolina, Mecklenburg County, burials, U.S.N.M. no. 138808; Florida, Hillsborough County, near Tampa Bay, U.S.N.M. no. 35335; Florida, Orange County, mound, U.S.N.M. no. 150100; Louisiana, Avoyelles Parish, U.S.N.M. no. 331724; Pennsylvania, Lancaster County, on Susquehanna River, U.S.N.M. no. 27048.

Seventh row.—Cane or tubular beads.³⁰ Core translucent or transparent green glass, with thin glaze of red glass over entire surface.

Similar beads: Tennessee, Sullivan County, U.S.N.M. no. 136812; Alabama, Madison County, Hobbs Island in Tennessee River; Virginia, Stafford County, average smaller, burial from site of Potomac village, at mouth of Potomac Creek.

Eighth row.—Cane or tubular beads, opaque white glass.

³⁰ Beck, op. cit., p. 60, described this type of bead:

"*Cane beads.* To make these the glass was made into a rod or tube which was called a cane. These canes were sometimes made of one glass only; at other times they were made of different coloured glasses arranged in a pattern.

"To make a bead, a cane, usually tubular, was selected of approximately the same diameter as the bead required. A piece the length of the bead was cut off this cane. In some cases this was used as a bead without any further work on it. In other cases it was finished by either grinding or reheating. Beads made in this manner are called *Cane beads.*"

Similar beads: Tennessee, Sullivan County, U.S.N.M. no. 136812; Alabama, Madison County, Hobbs Island in Tennessee River; Louisiana, Avoyelles Parish, U.S.N.M. no. 369258.

Ninth row.—Cane or tubular beads, opaque light blue glass. No other examples traced.

Tenth row.—Wire-wound beads,²⁷ opalescent white glass.

Similar beads: Tennessee, Sullivan County, average smaller, U.S.N.M. no. 136812; Georgia, Bibb County, Macon, 1935, from surface of Mound D; Georgia, Whitfield County, U.S.N.M. no. 15539; Alabama, Talladega County, U.S.N.M. no. 364574; Mississippi, Lee County, more globular, U.S.N.M. no. 209619; Louisiana, Avoyelles Parish, average smaller, U.S.N.M. no. 331724.

Two bottom rows.—Cut rock crystal, with eight facets on perimeter.

Similar beads: Florida, Pinellas County, Maximo Point, facing Tampa Bay, U.S.N.M. no. 35775; Florida, Hillsborough County, 14 beads from burials near Tampa Bay, U.S.N.M. nos. 35334-35344; Florida, Orange County, U.S.N.M. no. 150100.

The references in the preceding lists often apply to a single bead, seldom to more than two or three, which had been found with many others of different types. Some had been discovered in burials, others had been recovered from the surface of village or camp sites. In two instances no examples of similar beads have been traced in the collections of the United States National Museum, although it is to be expected that some are preserved in other collections, both public and private. The relatively few specimens recorded may indicate the range of the several forms, rather than the frequency with which they have occurred.

The history of the remarkable cache is not known, nor has it been determined from what country or countries the material may have come. It is doubtful if any of the beads were made at Jamestown; consequently very little can now be added to the brief descriptions already given. Two of the types (fifth row and two bottom rows) present problems which may be difficult to solve but the solution of which would undoubtedly aid in determining the place of origin of other beads encountered with them in the cache.

²⁷ Beck, op cit., p. 60, referred to beads of this type.

"*Wire-wound beads.* A thin stick of glass heated until it had much the consistency of toffee was wound round a wire. During the process the glass was pulled out into a thread, and there is frequently a projection on the bead showing where this thread was broken off. When, however, as often happens, the bead has been reheated for subsequent decoration, this projection generally disappears. Beads made in this manner are called *Wire wound*."

Aside from the specimens from the Leedstown cache, the collections of the National Museum contain only one series of the transparent blue glass beads with longitudinal stripes of fine threads of opaque white glass paralleling the perforation. These were recovered from an ancient Indian burial on Santa Rosa Island, Santa Barbara County, Calif., by Stephen J. Bowers in 1876 (U.S.N.M. no. 20236). The islands were discovered by the Spaniards under Cabrillo in 1542 and were visited frequently thereafter by ships under the same flag. Although the beads from the bank of the Rappahannock are corroded with their surfaces roughened, those from California appear as fresh and smooth as when placed in the graves. This contrast in condition of the two groups may be attributed to the difference in the amount of moisture, the variation of temperature, and the composition of the earth by which they were surrounded. All are thought to be of the same age and to have come from the same source—some glasshouse in Spain.

Cut rock crystal beads, similar to those recovered from the Leedstown cache, have been discovered on the west coast of Florida, but are not known from any other part of the United States. They have been found in mounds and burials within a limited area extending southward from the north shore of Tampa Bay to the vicinity of Key Marco, a distance of about 175 miles. Other forms of beads and pendants, likewise made of rock crystal, have been discovered in Florida associated with the type occurring at Leedstown, but only the latter will now be considered.

The specimens mentioned as having come from Pinellas and Hillsborough Counties were collected by S. T. Walker in 1879.²⁸ Many others were found during the progress of recent archeological explorations under the direction of the Bureau of American Ethnology, supervised by M. W. Stirling. They were encountered in several localities within the bounds previously designated, and all came from burials thought to have belonged to the years following soon after the first contact of Spaniards and Indians about the last half of the sixteenth century. Whether they had been traded or given to the Indians, or had been recovered by the natives from a Spanish wreck on the Gulf coast, may never be known; however, they were undoubtedly brought to America in a Spanish ship.

The crystal beads from the cache on the Rappahannock and those from the west coast of Florida are identical in form and size. They

²⁸ Walker, S. T., Preliminary explorations among the Indian mounds in southern Florida. In Ann. Rep. Smithsonian Inst. for 1879, Washington, 1880.

have the same number of facets on the perimeter. On all, the plane surface from which the perforation was begun is rough, suggesting the use of a saw in preparing the mass, and the opposite end of the perforation emerges in a distinct concavity which was made when the drill broke through the thin wall of crystal.

The two distinct types of beads found in the Virginia cache—the blue glass with fine white lines and the cut rock crystal—should, with a degree of certainty, be attributed to a Spanish source, and this suggests that all beads in the Leedstown cache were of Spanish origin.

During the sixteenth and seventeenth centuries Spain produced glass equal to that made in other parts of Europe; consequently, it is unconceivable that beads required for trade in foreign lands would have been brought from other countries. Barcelona was the center of the glass industry, which would undoubtedly have included the manufacture of beads. Thus it had been for centuries, and in the words of Señor Juan F. Riano, in a catalogue of Spanish objects in the South Kensington Museum:³⁰

Jerónimo Paulo, who wrote in 1491 a description in Latin of the most remarkable things at Barcelona, says they also send to Rome and other places many glass vessels of different sorts and kinds, which may well compete with those of Venice. Marineus Siculus, who writes at the beginning of the sixteenth century, says that the best glass made in Spain is that of Barcelona; and Gaspar Paneiros in his *chronographia*, published at Coimbra in 1562, mentions that excellent glass was made at Barcelona, almost equal to the Venetian.

These were the years during which Spanish vessels so frequently touched the coast of Florida and had intercourse with the native tribes. Although it has not been possible to trace definitely the source of the crystal beads, it is believed they were cut in Spain and brought to America during the latter half of the sixteenth century.

The beads, crystal as well as glass, found in the cache on the bank of the Rappahannock, may have been carried to Virginia in a ship under the English flag, but when, where, and how they had been obtained by the English would form an interesting bit of history.

KERAHOCOK

A village bearing the name of Kerahocak is shown on the 1624 map several miles above Pissaseck. It stood on the left bank of the Rappahannock opposite Port Tobago and Green Bays, probably about the position of Greenlaws Wharf, which is visible in the aerial photograph, plate 10, and is also indicated on figure 5. Here as elsewhere

³⁰ Quoted by Nesbitt, *op. cit.*, pp. 101-102.