

GLASS TRADE BEADS AND THE PETUN

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Abstract

Glass Trade Beads from Petun-*wendat* archaeological sites are recorded and discussed.

Résumé

Compte-rendu des perles de verroterie utilisées pour le troc et trouvées sur les sites Petun.

(Note: Our translation recognizes that the inclusive English word 'bead' does not have a corresponding equivalent in the French language, which has a number of words specific to the type of bead. Ian Kenyon notes that 17th Century French documents contain at least five commonly used words for bead: *rassade*, *canon*, *tuyau*, *patinotre*, *grain* (Kenyon 1984:6). 'Bead' in Old English implied "something used to say one's prayers", corresponding then to the French "*patinotre/paternoster*", but this connotation has long been lost. From the Italian the French adopted *marguerites*, *perles* (pearls), and *conterie* (counted out). The French sometimes use *rocaille* (work in rock crystal) to glass beads in general (Kidd 1979:52,54). A dictionary further provides *bulle*, and *chapelet*).

Figures and Map following:

Twelve type Im1, and one type In1/2/3 beads, Hamilton-Lougheed BbHa-10 (HL) site, 1887 (Boyle 1888:43)

Seven (before breakage) type Ia1 red glass trade beads strung alternately with whelk-shell "chunky" beads to make a baby's necklace, Long BcHb-9 (L) site, 1952 (Blair 1952)(photo courtesy Museum of Indian Archaeology, London).

MAP: Archaeological Sites Mentioned in the Text.

Introduction

Six hundred and seventy-two glass trade beads of European origin in eighty-three types from nineteen Petun-*wendat* archaeological sites in the Blue Mountain region of Ontario which date ca. 1575-1650, and a further 95 beads from two post-Dispersal sites, are reported. To the extent possible, the beads have been classified according to the system devised by Kenneth E. and Martha Ann Kidd (1970). For more details of any bead, contact the Petun Research Institute.

Beads surface collected or excavated by J. Allan Blair or the writer, since 1975 under archaeological licence, and others curated by the Institute, are provenienced at least to site. A code following a site name, e.g. "fs", -1, -2 indicates the bead was surface-collected in a designated area of a site. Beads excavated by the writer or under his licence and direction are recorded with the year of excavation, geographic excavation unit, depth (lower case letter) and a catalogue number if used.

Petun beads in other collections have also been recorded, some lost and now known only by description. Included for comparison are beads from the Ste. Marie II (SM2) BeHb-1 site on Christian Island (Caruthers 1965), and the Rock Island II (RI2) site in Wisconsin (Mason 1986). The SM2 site is firmly dated to 1649-1650, and was terminated by the migration to Quebec of what became the Eastern *wendat*,

which included some Hurons who had wintered with the Petun. The stratified RI2 site in Wisconsin contains a post-Dispersal mixed refugee Petun/Huron occupation, predominantly Petun, commencing 1651 or 1652 (Mason 1986:213-217). These people, the Western *wendat*, became the historic Wyandot Tribe. Evidence for their Ontario origins comprises native and European goods, including glass beads, duplicated in pre-Dispersal Ontario Petun sites. On the stratified RI2 site the Petun-*wendat* component could not always be separated in context from the remnants of other occupations (Mason 1986:213). For this reason, beads present at RI2 but not recognised on pre-Dispersal Ontario Petun sites are disregarded. These include types IIa7, IIa14, IIb13, IIb39/40, IIbb6, IVa5 and all wire-wound types.

Grateful thanks are extended to Peter J. Carruthers, Ontario, and Dr. Ronald J. Mason, Wisconsin, for kindly providing the writer with their current thoughts and data on respectively the SM2 and RI2 sites, and to Dr. Ron Hancock, Carolyn Walker, Ella Garrad and all others who helped to make this Bulletin possible.

Petun Glass Trade Bead Research

The earliest known description and discussion of any Petun glass trade beads was published in 1888 by David Boyle, following his implied visits to the Hamilton-Lougheed BbHa-10 (HL) and other sites in Nottawasaga township, in 1886 and/or 1887. He illustrated twelve type III m1 and one possibly III n1/2/3 beads (Fig. 1), and described them as "coarse glass beads of brilliant hues (generally red and blue) and bearing a pattern that no doubt powerfully fascinated the native eye". These beads were later catalogued as "Case `A': item 14: Quantity of blue and red glass beads, various sizes and forms. Nottawasaga. G. Lougheed; item 18: One cylindrical variegated glass bead, 1 in. long and ½ in. diameter. Nottawasaga. Lougheed col." (Boyle 1888:42-43, 1889:48, 1908:14)(see Figure).

During his 1923 survey of the Petun area, William J. Wintemberg collected "two polychrome glass beads" at the Pretty River BcHb-22 (PR) site, July 16, 1923. He also saw "glass beads both round and cylindrical, but no large polychrome beads" from the Melville BbHa-7 (MV) site; glass beads, not further described, from the Best BbHb-1 (HB), Kelly-Campbell BcHb-10 (KC), Currie BcHb-18 (AC), and Haney-Cook BcHb-27 lower (HCL) sites (Wintemberg 1923). The collection from the Cook segment of the HCL site was later donated to the Royal Ontario Museum through the intercession of Edward H. Thomas..

In 1952, J. Allan Blair salvaged artifacts exposed in a gravel pit, the Long BcHb-9 (L) site. Among them was a string of "five large Indian beads made from conch shell and seven long red French trade beads" strung alternately. The trade beads were similar to others he had found earlier in 1952 at the McEwen BcHb-17 (McE) site (Blair 1952). These beads were passed to Dr. Wilfrid Jury and reside today in the London Museum of Archaeology (formerly Museum of Indian Archaeology)(see Figure). Beads from the McE site donated by Blair to the Royal Ontario Museum were among those studied by George Irving Quimby when establishing his glass bead chronology (Quimby 1966:81-90, 186).

The report on the 1952 excavations on the MacMurphy BcHb-26 (MM) site by the University of Toronto noted: "Only two glass beads are known to have come from this site, one from the excavated sample, the other is in the MacMurphy family collection. Both of these are cylindrical, one half by three-sixteenths inches of white glass" (Bell 1952).

Excavations at the Kelly-Campbell BcHb-10 (KC) site in 1954 and 1955 by J. Allan Blair and Edward H. Thomas produced "beads .. show French contact" (Thomas 1959). They were not further described but are included in the Blair collection curated by the Petun Research Institute.

In 1969, all information concerning Petun glass beads developed by J. Allan Blair and the writer was shared with Tim and Ian Kenyon in their first attempt to establish an Ontario glass bead chronology which included Petun beads (Kenyon 1969). The Kenyons devised their own bead classification system, and found that beads from securely-dated sites clustered in time periods, which they termed Glass Bead Periods (GBP). The Petun Melville BbHa-7 (MV), Giebe BcHb-1 (G), MacMurphy BcHb-26 (MM) sites

were shown to cluster together at ca. 1600-1620 a.d., in GBP2, and the Long BcHb-9 (L), Kelly-Campbell BcHb-10 (KC), Plater-Martin BdHb-1 (PM), and Plater-Fleming BdHb-2 (PF) sites together ca. 1635-1650 a.d. in GBP3 (Kenyon 1969:7,13-16,21-23,31).

In 1970, Kenneth E. and Martha Ann Kidd published "A Classification System for Glass Beads for the Use of Field Archaeologists" (Kidd and Kidd 1970). This system seemed superior to others, and the writer and the Kenyons adapted our joint information on Petun glass beads to it.

In 1974, the Petun glass trade beads in the Royal Ontario Museum donated by J. Allan Blair from the Kelly-Campbell BcHb-10 (KC) and McEwen BcHb-17 (McE) sites, by William A. Campbell from the McLean BcHb-12 (McL) site, and Mrs. Robert (Cook) Adams from the Haney-Cook BcHb-27 Lower (HCL) sites, and those at the Archaeological Survey of Canada collected by William J. Wintemberg in 1923 from the Pretty River BcHb-22 (PR) site, were examined and classified by the writer according to the Kidd and Kidd system in a project to summarise all that was known of the Petun (Garrad 1975).

From 1975 until 1982, following the summary of Petun archaeology in 1974 (Garrad 1975), the writer conducted selective and minimal excavations to add further information. Details of all glass beads found or excavated by the writer under licence since 1975, or received for curation by the Petun Research Institute from other sources, have been included in his annual report to the Ontario Minister having jurisdiction under the Ontario Heritage Act 1974. As these reports are annual they are not individually referenced here. Beads in the reports may have been later reclassified on re-examination so that the following list may not exactly correspond to the original references.

In 1978, details of 213 known Petun glass beads in sixty types from fifteen sites were compiled and circulated to interested scholars. In 1982, it was revised to report 234 beads in sixty-two types from seventeen sites, principally to assist in the preparation of a major presentation on Ontario glass trade beads (Garrad 1982a, Kenyon & Kenyon 1983). Much of the Kenyons' work was subsequently refined by William R. Fitzgerald without reference to Petun beads (Fitzgerald, Knight & Bain 1995).

In 1982, following four years of work at the Haney-Cook BcHb-27 site, it was concluded that two villages were present (Garrad 1982b). These were designated "Lower" (HCL) and "Upper" (HCU) and the glass beads from each were divided accordingly.

In 1993, the puzzling presence in the collection of William McConnell of a late glass bead apparently from the GBP1 McQueen-McConnell BcHb-31 (MQC) site was explained when a second and later (GBP3) site was recognized on his farm. All the glass beads in the McConnell collection were then assigned to it, the Bill McConnell BcHb-47 (BM) site.

In 1997, a collaboration began with Dr. Ronald G. V. Hancock, the of the University of Toronto, to determine the chemistry of Petun white and red glass beads using instrumental neutron activation analysis (INAA), and to use this information to show relationships between glass beads on Petun sites and elsewhere. Red beads from Petun and Seneca sites and from Amsterdam, were compared by Fanny Qwok (1998), and other beads by Dr. Hancock (2000; Hancock *et al* 2000). The current state of this ongoing research is reported below under "Instrumental Neutron Activation Analysis".

The work now presented records 672 typed glass trade beads in eighty-three types from nineteen sites in the historic Petun area of Ontario, plus two other sites of known dates to which it is thought Petun people moved. Relative dating of the Petun sites from the evidence of the beads will follow.

The Kidd and Kidd Classification System

Of the various systems devised for classifying and describing glass beads, the writer, together with the Kenyons and Dr. Ronald Mason, adopted the Kidd and Kidd system as "the most comprehensive, detailed

and rational system" (Mason 1986:185), particularly as it is applicable to the time and place of the Petun-wendat. It "is based, in the first instance, upon the processes of manufacture; in the second, upon such physical characteristics as shape, size and colour (including translucency and opacity)" (Kidd & Kidd 1970:46-48), in other words, on characteristics observable, hopefully, within the subject bead. However, the Kidd and Kidd system is not without problems in application, particularly in relating the bead colours to the charts provided with the system, and even translucency. Petun beads are now approaching four hundred years in age, and their colours are sometimes suspected of having changed due to such possible forces as soil contamination, corrosion and chemical leaching and aging. Others were modified by their owners, stripes were sometimes ground off, large beads broken into pieces. We found that different researchers would type the same bead differently depending on how the bead colour is perceived, the strength of the light and degree of magnification used in the examination. The ink colours on the 1970 coloured reference charts used with the Kidd and Kidd system may also be changing, and do not seem to always agree with the named colour. We have therefore revised some of the bead designations given earlier elsewhere, and do not suppose that, even now, all our classifications are wholly accurate.

Following Mason (1986:185,187-193), when more than one bead class is possible because of uncertain colour, the additional possible class number(s) is/are given, separated by a slash mark (/). If the colour cannot be determined, or some other element is missing, this is indicated by '?'. Beads which are broken or intentionally modified, but classifiable, are designated as if complete. Beads known only by description are so indicated. Some beads may no longer exist, or for other reasons may no longer be available for confirming inspection. All Ontario Petun beads are drawn, none are recognised as wire-wound.

Dating Petun Glass Trade Beads

The Kidd & Kidd system is of classification only, and does not attempt to provide the date or chronology for glass trade bead types. For Petun beads this was first undertaken by the late Thomas and Ian T. Kenyon, in 1969 and 1982 (Kenyon 1969; Kenyon & Kenyon 1983). While the bead classification system they initially devised was superseded by that of the Kidds, their proposal that certain bead types cluster together into periods of time, which they dubbed Glass Bead Periods (GBP), has proved a most useful innovation. In their 1982 work, they found no Petun sites were indicated by glass beads to belong to GBP1 (1580-1600); they placed the Petun sites MV, GF, G, HC, and MM together in GBP2 (ca. 1615); HL and CR sites together in early GPB3 (GBP3a)(1620s-1630s), and L, KC, McE, PM and PF sites together in later GPB3 (GBP3b)(1630s-1650). The Kenyons also innovated the division of GBP3 into GBP3a (1620s-1630s) when red beads are less than 10% of the total from a site, and GBP3b (1630s-1650s), when red glass beads exceed 10% of the total from a site. It is observed that 27% (21/78) beads at HL, long identified as the historic village of *EHWAE* which was destroyed in 1640, are "red", although in all cases either with added stripes or on a core. This increase in red beads during GBP3b was styled the "Red Shift" by Ian T. Kenyon, who suggested it marked a revival of traditional healing and shamanist cults, among whom, as with the Nipissings in Sagard's time, red glass beads were "regarded as having magical properties, being filled with power, both good and evil" (Kenyon 1984). Alternatively, the cause of this increase may simply have been a change of supplier in Europe (Fitzgerald, Knight and Bain 1995:123).

The Kenyons observed that the glass bead sequence in pre-Dispersal Ontario within the French-trading hemisphere, did not correspond with that of the New York Five Nations Iroquois within the Dutch trading hemisphere. However, beads from the Dutch sequences are found on Petun sites.

Building on previous work, Bill Fitzgerald has refined the dates for the three French GBP and two Dutch Horizons (DH), and has given convincing explanations for these time parameters. He developed an enlarged list of beads diagnostic of GBP and/or DH (Fitzgerald, Knight & Bain 1995). We find that DHs coincide sufficiently with GBPs that we can work with GBPs exclusively. From the cited work we removed beads which conflicted with Kenyons' conclusion, or appeared in more than one GBP, and added those which are represented as diagnostic in the 1995 work elsewhere than on the list. We also added the solid

white opaque bead Ia4, white being the predominant colour indicator of GBP2 (Fitzgerald, Knight & Bain 1995:122,123; Kenyon 1984). The effect of these refinements is to suggest a somewhat later terminal date for some sites than earlier proposed by Tim and Ian Kenyon.

Beads found in the Petun collections presently deemed diagnostic of GBP are:

GBP1:

Ila55 brite navy round; Ila56 brite navy circular; and lib1 redwood round;

GBP2 and/or DH1:

Ia4 oyster white tube; Ia5 white tube; Ia19 brite navy tube; Ib20 robin's egg blue tube; Ila13 white round; Ila15 white oval; Ila49 dark shadow blue oval; Ila57 brite navy oval; IIbb2 redwood flat striped; IIg4 white round with flusheyes; IIIb9 brite navy tube cored striped; IIIb10 dark navy tube cored striped; IIIbb1 redwood tube cored striped; IIIbb3 redwood tube cored striped; IVb36 dark navy round cored striped; and IVk3 brite navy star layered;

GBP3 and/or DH2:

Ia1 redwood tube; Ia12 turquoise tube; Ia14 robin's egg blue tube; Ia15 brite blue tube; Ic1 redwood square tube; Ic'1 redwood square tube twisted; Ila1 redwood round; Ila2 redwood circular; Ila56 robin's egg blue round; IIIa2 redwood cored; IIIc1 bright blue square tube cored; IIIc'3 turquoise twisted square tube cored; IIIk3 bright navy star layered; IVa1 redwood round cored; IVa2 redwood round cored; IVa3 redwood circular cored; IVa4 redwood oval cored; IVa6 redwood circular cored.

Also diagnostic of GBP1 sites may be the negative evidence of the absence of glass beads when other European trade goods, particularly metal scraps, are present. GBP1 beads that are known are mainly from burials (Kenyon & Kenyon 1983:59). This supposition applies particularly to the GBP1 Sidey-Mackay BbHa-6 (SM), Young-McQueen BcHb-19 (YM) and McQueen-McConnell BcHb-31 (QC) sites. It is noticed that all Petun area GBP1 beads were found on later GBP2 and GBP3 sites, even on the post-Dispersal RI2 site, perhaps indicating that they were regarded as precious/sacred and that they were not casually discarded.

Instrumental Neutron Activation Analysis (INAA)

Commencing in 1997 a number of research projects have been jointly undertaken with Dr. Ronald G. V. Hancock. In 1997 the facility used was the Slowpoke nuclear reactor of the Dept. Physics, University of Toronto, and currently the Slowpoke-2 reactor at the Royal Military College of Canada, Kingston.

In the first project, Petun white glass Ia4, Ia5, Ila13 and Ila15 beads popular in GBP2 were tested to establish chemical characters for comparison with visually similar white beads from later post-Dispersal times held by other institutions. These beads are identified in the following table by "Hancock" numbers assigned by Dr. Hancock for this purpose. It was revealed that the six Ia4 visually identical white beads from the G site actually fell into three distinct chemical groups, (Hancock #12,13,15; 16; 14,17), one of which was identical to Ia4 beads from MV and MA (Hancock #14,17,18,19), and that the ten Ila15 beads from five sites (Hancock # 1>10) showed close matches between HCL and GF (Hancock #02,09), HCU and HL (Hancock #04,07), GF and HL (Hancock #05,06).

In a thesis research project by Fanny Kwok (1998), supervised by Dr. Hancock, thirty-seven red glass beads from six Petun sites were compared with twenty similar beads from three Iroquois sites in New York State, and sixty-seven from a ca. 1610 glass bead factory in Amsterdam, Holland. The total of 124 beads were found to divide into twenty-two chemical groups. Petun glass beads occurred in eleven of these. In the following tables "Kwok P" (Petun) numbers assigned to beads for this work are shown. The eleven chemical groups into which Petun beads fell are numbered from Kwok's thesis:

Group 2: P28 (PM) groups with P38 (PF)

Group 3: P4 (McE) and P6 (KC) group with one bead from New York State and four from Amsterdam

Group 4: P13, P15, P25, and P26 (PM) group with P36 (PF)

Group 5: P5 (KC) and P18 (PM) group with one bead from Amsterdam

- Group 7: P24 (PM) has no matches, but falls chemically between Group 5 and Group 11
 Group 11: P19 and P20 (PM) group with two beads in New York State and seven from Amsterdam
 Group 12: P2 (CR), P7 (KC), P11, P14, P16, P22, P27, P29, and P30 (PM), P33 and P37 (PF), group with four beads in New York State and six from Amsterdam
 Group 15: P3 (McE), P10, P12, P17, and P21 (PM), P31, P32, and P35 (PF), group with one bead in New York State and four from Amsterdam
 Group 17: P1 (HL) groups with a bead in New York State
 Group 18: P9 (KC) and P34 (PM) group with one bead in New York State and two from Amsterdam
 Group 22: P23 (PM) groups with one bead from New York State

In summary, red beads from all five tested Petun sites, CR, KC, McE, PM and PF, connect to both Amsterdam (presumably the place of manufacture) and Iroquois sites in New York State, as well as to each other, presumably indicating near or actual contemporaneity. Although the 124 beads divided into 22 chemical groups, Kwok observed that they showed sufficient homogeneity to conclude they were all manufactured in Holland. The Dutch were among the Europeans who traded into North America in the 17th Century, but how Dutch-manufactured beads reached the Petun in the French-trading hemisphere "is inconclusive" (Kwok 1998:22,28,31,36,44-47).

In the year 2000, six red glass beads from the Charity Site, Christian Island, were loaned to the Petun Research Institute for INAA by the Beausoleil First Nation, courtesy of Chief Paul Sandy and Economic Development Officer Amya Assance, and Dr. Lawrence Jackson, Northeastern Archaeological Associates. One of the beads was found to group only with Amsterdam, another only with the west Seneca Power House site in New York State, but the others clustered into two groups, one grouping entirely with the Petun KC site, the other with the McE, PM and PF sites (Hancock 2000; Hancock *et al* 2000).

In the same year, a further eight red beads found in the J. Allan Blair collection from the KC site, not seen by Fanny Kwok, were subjected to INAA, and assigned Hancock KC numbers 1-8. These were shown to relate the KC site to PF (KC1, P38); to the east Seneca Iroquois Warren site in New York State (KC4, KC5, Wa36); to the west Seneca Iroquois Bosley Mills site in New York State (KC6, BM31, BM34); and to the Charity site on Christian Island (KC7, KC8, #2).

In the same project, the eight red beads from the KC site, seven red beads from the Charity Site, and six red beads from the Bidmead site in Huronia, were tested against the accumulated data base. Three KC beads grouped with three from the Charity site; one bead from McE, two beads from PM and three from PF grouped with two beads from the Charity site. One KC bead (P6) was found to match Charity #2, and also two beads from the Dann (A86, A89) and two from the Marsh (A92, A94) sites in New York State. The Bidmead site showed no connections (Hancock *et al*, 2000).

The growing data base developed by INAA now incorporates data from sixty-five red glass beads from Amsterdam, thirty-seven from six Petun sites, 102 from eleven Seneca sites in New York State, and 17 from an Algonquin site in Quebec. Summarised in four chemical groups: in Group 1 the Petun relate to the Seneca and to Amsterdam in the ratio 15:50:49 (and to the Quebec site not at all); in Group 2 in the ratio 22:6:16 (and to the Quebec site not at all); Group 3 is exclusively Seneca; Group 4 relates the Seneca to the Quebec site. Amsterdam's strongest connection to the Petun is to the Plater-Martin BdHb-1 site. The strongest Seneca (Power House site) connection is to McE, PM and PF. The strongest shared Amsterdam-Seneca-Petun connection is from the Seneca Menzis, Dann and Marsh sites to PM and KC (Hancock *et al* 2000).

It is suggested that the red bead matches at Petun, Huron and Seneca sites "may either be the result of trade, or may result from the Wenro migration of 1639 into Huronia and Petunia, or may even result from the forced southern migration of people following the late 1640s battles with the Five Nations Iroquois" (Hancock *et al*, 2000).

6a

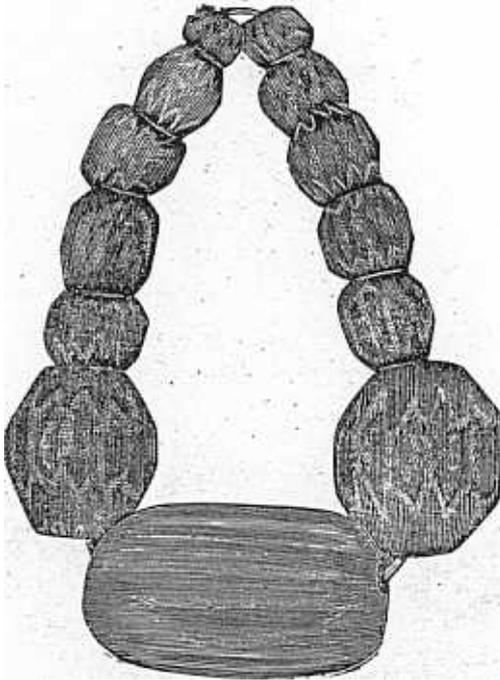
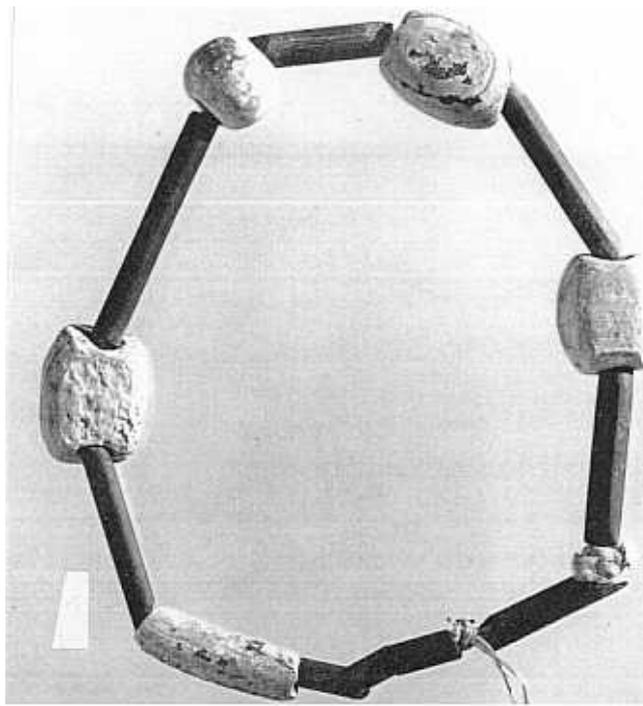
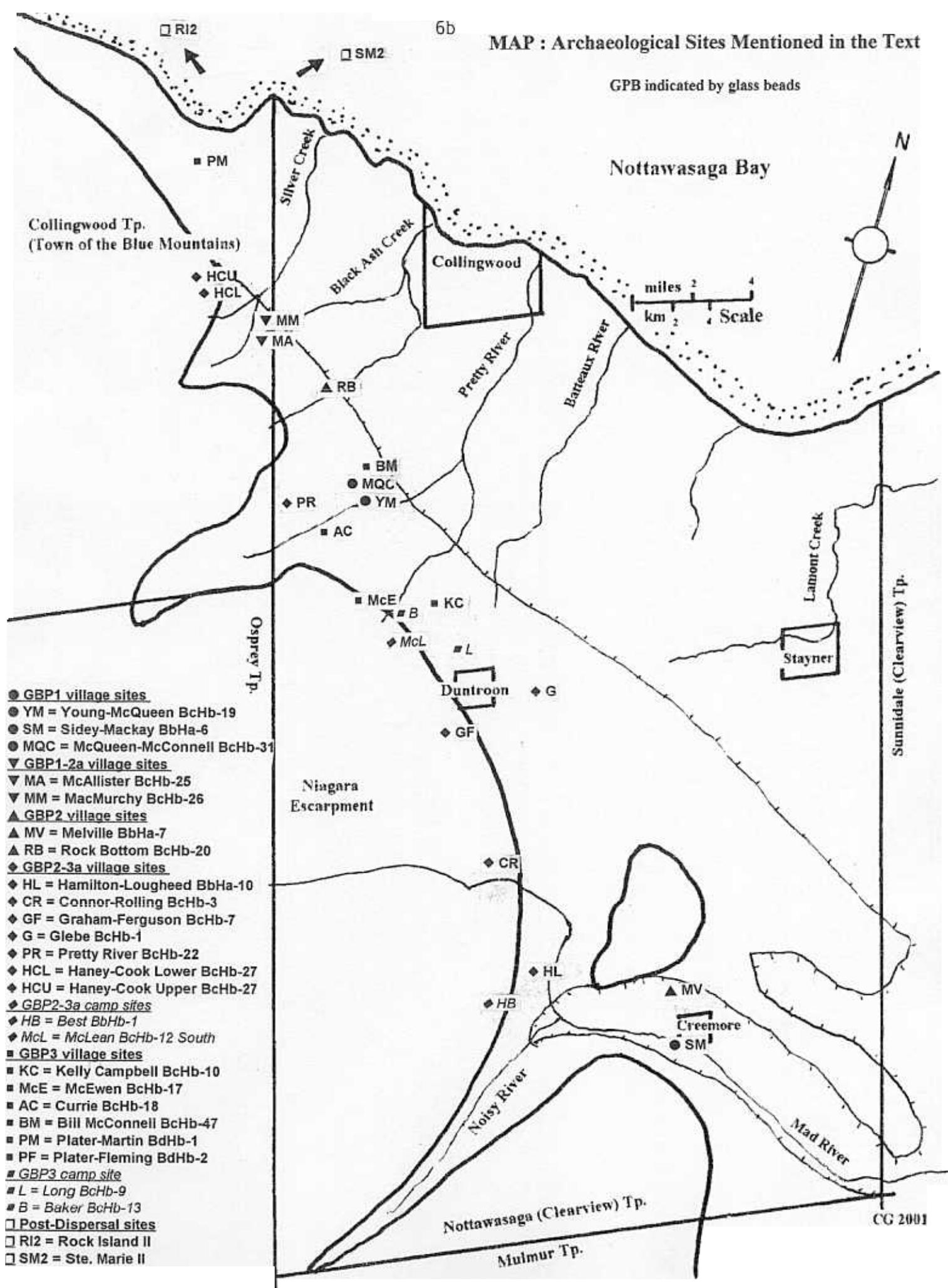


FIG. 72. (Full Size.)

Twelve type Im1, and one type In1/2/3 bead, Hamilton-Lougheed BbHa-10 site, 1887 (Boyle 1888:43).



GPB indicated by glass beads



**Table 1: Classified Petun Glass Beads by Site (including SM2 and RI2)
with Site Name, Abbreviation and (total), and Collection Name and (total)**

In this and other tables, Petun sites are listed in geographical sequence south to north. Each site name is followed by the (abbreviation) used for the name in this document and the total (number) of beads recorded for the site.

Melville BbHa-7 Site (MV) (45)

Petun Research Institute (6):

J. Allan Blair collection:

MV1 III m1

Garrad 1977 surface collection:

MVfs IIbb2

Garrad 1978 excavations

MV15n40wb Ia19

MV445n90wa IIa49

MV445n95wc Ia4 (Hancock #18 white)

MV35s225wk III m1

Melville Family Collection (39):

8x Ia4, 1x Ia5, 1x Ia19, 1x IIa10, 14x IIa15, 3x IIa49, 3x IIa54, 5x IIa57, 1x IIg4, 1x IIIbb2, 1x IVg1

Total for Melville BbHa-7 Site (45): 9x Ia4; 1x Ia5; 2x Ia19; 1x IIa10; 14x IIa15; 4x IIa49; 3x IIa54; 5x IIa57; 1x IIbb2; 1x IIg4; 1x IIIbb2; 2x III m1; 1x IVg1.

Best BbHb-1 (HB) (0)

James A. Best collection included "glass beads" when seen but not described by W. J. Wintemberg July 5, 1923, now lost.

Hamilton-Lougheed (BbHa-10) Site (HL) (78)

Petun Research Institute (58):

J. Allan Blair collection

HLfs IIbb2

Garrad surface collections under licence:

HL3 IIbb2

HL3 IIIa12

HL3 IIIk3

HL3 IVa1

HL4 Ibb1 (stripes ground off)(Kwok P1 red)

HL4 Ia16

HL4 Ia19

HL4 Ia20 (x 2)

HL4 IIa15 (Hancock #6 white)

HL4 IIa15 (Hancock #7 white)

HL4 IIa31

HL4 IIa36 (1976)

HL4 IIa39

HL4 IIa50 (1976)

HL4 IIa54

HL4 IIa57

HL4 IIb5

HL4 IIbb2

HL4 IIIa2

HL4 IIIa12
 HL4 IIIb9
 HL4 IIIk3 (x 4)
 HL4 IVa1 (x 5)
 HL4 IVa4
 HL4 IVg1
 HL5 Ia11
 HL5 IIa26
 HL5 IIa48
 HL5 IIbb1
 HL5 IIIa12 (x 2)
 HL5 IVb36
 HL5 IIIk3 (x 3)
 HL5 IVa1
 HL9 IIb2
 HL9 IIbb2
 HL11 IIa31 (1993)
 HL13 IIa55 (1993)

Jerry Prager Surface Collection 1992:

HL1 IIa15 (Hancock #10 white)
 HL6 Ia15
 HL6 IIa15 (Hancock #8 white)
 HL6 IIIk3
 HL9 IIb33
 HL9 IIIb10
 HL9 IIIbb3
 HL9 IVa1
 HL9 IVk4

Royal Ontario Museum, Dept. Archaeology (14) (from illustration and description by David Boyle):
 5643 III m1 (x 12) (#5643 is presumed to be one of those illustrated, the others lost)
 III n1/2/3 (lost)

Royal Ontario Museum, Dept. Ethnology (7) (from drawings and descriptions by Tim Kenyon):

F. Storry donations:

1x IIa15, 1x IIa31, 1x IIa45, 1x IIIk3, 2x IVa3, 1x IVk3

Total for Hamilton-Lougheed BbHa-10 Site (78): 1x Ia11; 1x Ia15; 1x Ia16; 1x Ia19; 2x Ia20; 1x Ibb1; 5x IIa15; 1x IIa26; 3x IIa31; 1x IIa33; 1x IIa39; 1x IIa45; 1x IIa48; 1x IIa50; 1x IIa54; 1x IIa55; 1x IIa57; 1x IIb2; 1x IIb5; 1x IIb33; 1x IIbb1; 4x IIbb2; 1x IIIa2; 4x IIIa12; 1x IIIb9; 1x IIIb10; 1x IIIbb3; 10x IIIk3; 12x III m1; 1x III n1/2/3; 8x IVa1; 2x IVa3; 1x IVa4; 1x IVb36; 1x IVg1; 1x IVk3; 1x IVk4.

Connor-Rolling BcHb-3 Site (CR) (16)

Petun Research Institute (16):

J. Allan Blair collection:

CRfs Ia12
 CRfs IIa33 (x 2)
 CRfs IIa39 (x 2)
 CRfs IIbb2

Garrad surface collections under licence:

CR2 IIIk3
 CR5 IIa33 (x 2)
 CR5 IIc1
 CR6 Ia11

Garrad 1980 excavations:

CR1 60n5eb lc1 (Kwok P2 red)
 CR8 35n10ea llbb1
 CR8 35n20ea llbb2
 CR8 40n15ea lbb1
 CR8 40n15eb llbb2

Total for Connor Rolling BcHb-3 Site (16): 1x la11; 1x la12; 1x lbb1; 1x lc1; 4x lla33; 2x lla39; 1x llbb1; 3x llbb2; 1x llbc1; 1x llk3.

Graham-Ferguson BcHb-7 Site (GF) (6)

Petun Research Institute (6)
 Coles, Robertson, Spencer 1975 excavation:
 GF 3c10 lla15 (Hancock #9 white)
 Coles, Robertson, Spencer 1976 excavation:
 GF 10b la5
 GF 10b llbb3
 GF 11c lla15 (Hancock #5 white)
 GF 11c lla54
 GF 13c lla54

Total for Graham-Ferguson BcHb-7 Site (6): 1x la5; 2x lla15; 2x lla54; 1x llbb3.

Glebe BcHb-1 Site (G) (9)

Petun Research Institute (9):
 J. Allan Blair collection:
 Gfs la12
 Gfs la12
 Gfs llbb3
 J. Allan Blair excavations 1967:
 G-oss la4 (Hancock #12 white)
 G-oss la4 (Hancock #13 white)
 G-oss la4 (Hancock #14 white)
 G-oss la4 (Hancock #15 white)
 G-oss la4 (Hancock #16 white)
 G-oss la4 (Hancock #17 white)

Total for Glebe BcHb-1 Site (9): 6x la4; 2x la12; 1x llbb3.

Long BcHb-9 Site (L) (7)

London Museum of Archaeology (7)
 J. Allan Blair excavation 1952
 7x la1

Total for Long BcHb-9 Site (7): 7x la1

McLean South BcHb-12 (McL) (171)

Royal Ontario Museum (171):
 William A. Campbell donation (from T. Kenyon's descriptions)
 43912-19 "strings of catlinite and glass and wampum beads"

Total for McLean South BcHb-12 site (171): 1x la5; 1x la12; 1x la14/15; 2x lbb1 (stripes ground off); 108x lla15; 43x lla40; 1x llb1; 2x llbb1; 3x llk3; 8x lva2; 1x lvb36.

Baker BcHb-13 Site (B) (2)

Petun Research Institute (2)
 Garrad surface collection 2x Ila31 1970

Total for Baker BcHb-13 site (2): 2x Ila31

Kelly-Campbell BcHb-10 Site (KC) (66)

Petun Research Institute (64):

J. Allan Blair excavation 1954, Kelly segment

Ia1 (Hancock KC4 red)

Ia1 (Hancock KC5 red)

Ia1 (Hancock KC6 red)

Ia1 (Hancock KC7 red)

Ia1 (Hancock KC8 red)

Ila31

Ila46

Ila50

Ilb56

Ilb59

Ibb4 (Hancock KC1 red, stripes ground off)

Ibb4 (Hancock KC3 red, stripes ground off)

IVbb1 (Hancock KC2 red, stripes ground off)

IVk3

J. Allan Blair surface collection 1976-1977

Efs Ia1 (Kwok P5 red)(1976)

Efs Ib8 (1977)

Efs IIIm1 (1976)

Ontario Archaeological Society Excavation 1974:

K30s35ef106 Ila33

K30s45ee45 IIIbb1

K30s45ei57 IIIk3

K30s45ei58 Ila55

K30s45ei59 IIIk3

K30s45ei60 IIIk3

K30s45ei61 Ia19

K30s45ei62 IIIk3

K30s45ei63 Ila55

K30s65ee93 Ibb2

K35s60ec19 Iib2

K35s60ed56 IIIm1

K35s60eh35 Ila33

K40s45ee99 IIIk1

K40s50ec17 Ia1 (Kwok P9 red)

K40s50eg57 IIIm1

K40s60ek28 IVa6

Centennial College Excavation 1974 & 1975:

K25s30eg35 IIIc'3

K25s30eg36 Ila23

K30s40ei79 IIIbb1

K30s50ebk19 Ia20

K35s30ec44 Ic1

K40s25eb44 Ib20

K40s25ec109 IIIc'3

K40s35ea283 llbb2
 K40s35ea284 IVa1
 K40s35ee1 la11
 K40s60eh60 llbb2
 K45s30ea73 la1 (Kwok P8 red)
 K45s50ec13 ld1

Campbell segment, surface collections:

Efs la1 (Kwok P6 red)
 Efs la1 (Kwok P7 red)
 Efs la12
 Efs lc1
 Efs Ila13 (Hancock 11 white)
 Efs Ila39
 Efs Ila55
 Efs llbb1
 Efs IIIc1 x2 (1976)
 Efs IIIc2
 Efs IIIm1 x2
 Efs IVa2
 Efs IVg1
 K2 Ila49
 K2 IIIc1

Royal Ontario Museum (2)

J. Allan Blair donations:

43156 la9
 43156 Ila43

Total for Kelly-Campbell BcHb-10 Site (66): 10x la1; 1x la9; 1x la11; 1x la12; 1x la19; 1x la20; 1x lb8; 1x lb20; 2x lc1; 1x ld1; 1x Ila13; 1x Ila23; 1x Ila31; 2x Ila33; 1x Ila39; 1x Ila43; 1x Ila46; 1x Ila49; 1x Ila50; 3x Ila55; 1x llb2; 1x llb56; 1x llb59; 1x llbb1; 3x llbb2; 2x llbb4; 2x IIIbb1; 3x IIIc1; 1x IIIc2; 2x IIIc'3; 1x IIIk1; 4x IIIk3; 5x IIIm1; 1x IVa1; 1x IVa2; 1x IVa6; 1x IVbb1; 1x IVg1; 1x IVk3.

McEwen BcHb-17 Site (McE) (6)

Petun Research Institute (5):

J. Allan Blair collection:

McEfs la1 (x 2)(found 1952)
 McEfs unknown (Like Ila54, but blown hollow)

Garrad excavations 1979:

McE 0s170wb la1 (Kwok P3 red)
 McE 0s190wa la1 (Kwok P4 red)

Royal Ontario Museum (3):

J. Allan Blair donation

43028a IIIbb3
 43028b too broken to class
 439944 IIIm1

Total for McEwen BcHb-17 Site (6): 4x la1; 1x IIIbb3; 1x IIIm1; (plus 2x unknown/too broken to type, not included).

Currie BcHb-10 (AC) (0)

Alexander Manson collection included "glass beads" when seen but not described by W. J. Wintemberg August 4, 1923, now lost.

Pretty River BcHb-22 Site (PR) (19)

Petun Research Institute (17):

J. Allan Blair collection:

PRfs IVa2

Garrad surface collection 1987:

PR3 Ia11

PR3 IIa48

PR3 IIIk3

PR3 IIIk3

PR4 Ibb1

PR4 IIa57

PR7 Ia19

PR9 Ia4

PR9 IIa26

PR9 IIa55

PR9 IIa57

PR9 IIbb1

PR9 IVa1

PR12 IIa55

PR12 IIIk3

PR12 IIIk3

Archaeological Survey of Canada (2)(per Robert J. Pammett, September 30, 1977)

Wintenberg survey July 16, 1923

VIII-F-17614 IIa46

VIII-F-17614 IVk4

Total for Pretty River BcHb-22 Site (19): 1x Ia6; 1x Ia11; 1x Ia19; 1x Ibb1; 1x IIa26; 1x IIa46; 1x IIa48; 2x IIa55; 2x IIa57; 1x IIbb1; 4x IIIk3; 1x IVa1; 1x IVa2; 1x IVk4.

Bill McConnell BcHb-47 Site (BM) (5)

William McConnell Collection (3):

McC2 1x Ia20

McC2 1x IIIc?

McC3 1x IVk4

Petun Research Institute (2):

Garrad surface collection April 1994

Mc5 Ibb1 (stripes ground off)

Mc5 IVa1

Total for Bill McConnell Site (5): 1x Ia20; 1x Ibb1; 1x IIIc?; 1x IVa1; 1x IVk4.

Rock Bottom BcHb-20 Site (RB) (2)

Petun Research Institute (1)

J. Allan Blair collection

RB1 IIa26

Arthur Mangiacotte collection 1965 (1)

RB2 bead, no details known, now lost

J. T. MacMurchy collection 1974 (1)

RB3 a tubular glass bead, no details known, now lost

Archaeological Services Inc. assessment 2000 (1)

RBfs IIa40

Total for Rock Bottom BcHb-20 Site (2): 1x Ila26; 1x Ila40; (plus 2x lost, not included).

McAllister BcHb-25 Site (MA) (1)

Petun Research Institute (1)
Garrad excavation 1978:
McA 33w0sA Ia4 (Hancock #19 white)

Total for McAlister BcHb-25 Site (1): 1x Ia4

MacMurchy BcHb-26 Site (MM) (3)

Petun Research Institute (1)
Garrad surface collection 1984:
MacMfs Ia43
University of Toronto collection (1) (from W.D. Bell's description 1952)
Ia4/5
MacMurchy Family Collection (1) (from W. D. Bell's description)
Ia4/5

Total for MacMurchy BcHb-26 Site (3): 2x Ia4/5; 1x Ia43

Haney-Cook BcHb27 Lower Site (HCL) (166)

Petun Research Institute (6):
J. Allan Blair collection:
HC lower fs IIIk3
Garrad excavation 1982:
HC0e105sc Ia15 (Hancock #3 white)
HC0e105sc IIIbb3
HC5e105se Ia15 (Hancock #2 white)
HC5e110se Ia57
HC10n95sd Ia15 (Hancock #1 white)
Royal Ontario Museum (16):
Robert (Cook) Adams donation 1956
956.4.120 IIIk1
956.4.121 IIIbb3
956.4.122 IIIbb3
956.4.123 IIIbb3
956.4.124 IIIm1
956.4.125 IIIbb3
956.4.152 III n1/2/3
956.4.153 missing
956.4.154 IVk4
956.4.170a IIIa12
956.4.170b IIIa12
956.4.170c IIIb9
956.4.170d IIIa12
956.4.170e IIIa10
956.4.170f Ib8
956.4.170g IIIb7
Royal Ontario Museum, Dept. Ethnology, from T. Kenyon's descriptions (145)(Adams/Cook donation ?)
956.4.164 Ia5 (x 6)
956.4.164 Ia15
956.4.168 Ia5 (x 38)

956.4.168 Ila13 (x 2)
 956.4.168 Ila15 (x98)

Total for Haney-Cook BcHb-26 Lower Site (166): 44x Ia5; 1xIb8; 2x Ila13;
 102x Ila15; 1x Ila57; 1x IIIa10; 3x IIIa12; 1x IIIb7; 1x IIIb9; 5x IIIbb3;
 1x IIIk1; 1x IIIk3; 1x IIIm1; 1x IIIn1/2/3; 1x IVk4 (plus 1x missing not included).

Haney-Cook BcHb27 Upper Site (HCU) (25)

Petun Research Institute (25)

Garrad excavation 1976:

HC130n180wa IVk3

HC130n190wa IIIbb3

HC140n185wa Ila57

HC140n185wa Ila57

HC140n185wb Ibb1

HC140n195we Ila55

HC145n185wA Ibb3

HCII 10n0wa Ibb1

Garrad excavation 1977:

HC125n185wa IIIbb5

HC125n190wa Ila1

Garrad excavation 1978:

HC130n340wa IIIbb3

HC130n340wa IIIm1

HC130n345wa Ila57

HC130n345wa Ila57

HC130n345wa Ibb2

HC130n345wa IIIbb3

HC130n345wd IIIb9

HC260n390wA Ibb1

HC270n390wA Ila57

HC340n195wA IIIbb3

Garrad excavation 1982:

HC135n345we Ibb4

HC140n340wb Ila40

HC140n340wc Ila15 (Hancock #4 white)

HC140n345wa Ia16

HC140n345we IIIbb3

Total for Haney-Cook BcHb-26 Upper Site (25): 1x Ia16; 1x Ibb4; 1x Ila1; 1x Ila15; 1x Ila40; 1x Ila55; 5x Ila57; 3x Ibb1; 1x Ibb2; 1x Ibb3; 1x IIIb9; 5x IIIbb3; 1x IIIbb5; 1x IIIm1; 1x IVk3.

Plater-Martin BdHb-1 Site (PM) (35)

Petun Research Institute (32)

J. Allan Blair collection:

PMfs Ia1 (Kwok P28 red)

PMfs Ia1 (Kwok P29 red)

PMfs Ic'1 (Kwok P30 red)

PMfs Ila31

Centennial and Georgian Colleges excavations 1975:

PM105n15wa1 Ia9

PM405n590wa31 IVa1

PM410n580wa116 Ia1 (Kwok P10 red)

PM410n580wa117 Ia1 (Kwok P11 red)

PM410n590wa37 Ila57

PM420n575wa59 Ila23

PM420n575wa60 Ia1 (Kwok P12 red)

PM420n575wa61 Ia1 (Kwok P13 red)

PM420n585wa326 Ic1 (Kwok P14 red)

PM420n585wa327 lb8
 PM425n575wa284 lbb1 (Kwok P15 red, stripes ground off)
 PM425n585wa150 lc1 (Kwok P16 red)
 PM425n585wa151 la1 (Kwok P17 red)
 PM430n575wa168 la1 (Kwok P18 red)
 PM430n575wa169 la1 (Kwok P19 red)
 PM430n585wa la1 (Kwok P21 red)
 PM430n585wa lbb1 (Kwok P20 red, stripes ground off)
 PM435n585wa47 lla1
 PM3-334 lla1 (Kwok P27 red)
 PM3-335 llg5
 PMz539 la1 (Kwok P22 red)
 PMz540 lb1 (Kwok P23, red, stripes ground off)
 PMz541 lc'1 (Kwok P24 red)

Garrad excavation 1976:

PM45s115wa la1 (Kwok P25 red)
 PM45s115wa llc'3
 PM510n775wa la16
 PM510w785wb lla2
 PM515n785wf la1 (Kwok P26 red)

Arthur Mangiacotte Collection (2) (from Tim Kenyon drawing and description)

PMfs lla31

PMfs lla44

Edward H. Thomas Collection (1) (from Tim Kenyon drawing and description)

PMfs IVk7

Total for Plater-Martin BdHb-1 Site (35): 13x la1; 1x la9; 1x la16; 1x lb1; 1x lb8; 2x lbb1; 2x lc1; 2x lc'1; 1x lla1; 1x lla2; 1x lla23; 2x lla31; 1x lla44; 1x lla57; 1x llg5; 1x lllal; 1x llc'3; 1x IVa1; 1x IVk7.

Plater-Fleming BdHb-2 Site (PF) (10)

Petun Research Institute (10):

J. Allan Blair excavation 1961-1962

PF1 lbb1 (stripes ground off)(Kwok P31 red)
 PF1 la1 (Kwok P32 red)
 PF1 la1 (Kwok P33 red)
 PF1 lla1 (Kwok P34 red)
 PF1 la1 (Kwok P35 red)
 PF1 la1 (Kwok P36 red)
 PF1 lla1 (Kwok P37 red)
 PF1 lla1 (Kwok P38 red)
 PF1 lla23
 PF1 lla31

Total for Plater-Fleming BdHb-2 Site (10): 4x la1; 1x lbb1; 3x lla1; 1x lla23; 1x lla31.

Unknown site in Nottawasaga Tp. (0)

Royal Ontario Museum

931-32-3 described only as "glass beads", no details

Ste. Marie II BeHb-1 Site (SM2) (46)

Peter Carruthers excavation 1965 (see Carruthers 1965)

Rock Island II (RI2) (49)

Lawrence University excavations 1969-1973 (see Mason 1986:188-193)

TABLE 2 - CLASSIFIED BEADS FROM PETUN, STE. MARIE II AND ROCK ISLAND II SITES
(Petun sites are in geographic order south to north)

	HL	CR	GF	G	L	McL	B	KC	McE	PR	BM	RB	MA	MM	HCL	HCU	PM	PF	SM2	RI2
la1	-	-	-	-	7	-	-	10	4	-	-	-	-	-	-	-	13	4	2	1
la4	9	-	-	6	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-
la4/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
la5	1	-	1	-	-	1	-	-	-	-	-	-	-	-	44	-	-	-	-	-
la9	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-
la11	-	1	1	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
la12	-	-	1	2	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-
la14/15	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
la16	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
la19	2	1	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
la20	-	2	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
lb1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
lb8	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	1	-	-	-
lb20	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
lbb1	-	1	1	-	-	2	-	-	-	1	1	-	-	-	-	-	2	1	-	1
lbb4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
lc1	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	-	2	-	-	-
lc3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
lc'1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
ld1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIa1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	30	2
IIa2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
IIa10	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIa13/14	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	-	-	-	-	27
IIa15	14	5	-	2	-	108	-	-	-	-	-	-	-	-	102	1	-	-	-	8
IIa16/36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-
IIa23	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	-	-
IIa26	-	1	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-
IIa31	-	4	-	-	-	-	2	1	-	-	-	-	-	-	-	-	2	1	-	5
IIa33	-	-	4	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
IIa39	-	1	2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIa40	-	-	-	-	-	43	-	-	-	-	1	-	-	-	-	1	-	-	-	1
IIa42/49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
IIa43	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
IIa44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
IIa45	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIa46	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
IIa48	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
IIa49	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIa50	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIa54	3	1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIa55/56	-	1	-	-	-	-	-	3	-	2	-	-	-	-	-	1	-	-	-	2
IIa57	6	1	-	-	-	-	-	-	-	2	-	-	-	-	1	5	1	-	-	-

	MV	HL	CR	GF	G	L	MCL	B	KC	McE	PR	BM	RB	MA	MM	HCL	HCU	PM	PF	SM2	RI2
IIb1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIb2	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIb5	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIb33	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIb56	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIb59	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IIbb1	-	1	1	-	-	-	2	-	1	-	-	-	-	-	-	3	-	-	-	-	-
IIbb2	1	4	3	-	-	-	-	-	3	-	-	-	-	-	-	1	-	-	-	-	-
IIbb3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
IIbb4	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
Ilg4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ilg5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
IIIa1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
IIIa2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIIa10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
IIIa12	-	4	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-
IIIb7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
IIIb9	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
IIIb10	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIIbb1	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-
IIIbb2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IIIbb3	-	1	-	1	-	-	-	-	-	1	-	-	-	-	-	5	-	-	-	-	-
IIIbb5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
IIIc1	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
IIIc2/7	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-
IIIc3	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	1	-	-	-
IIIk1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-
IIIk3	-	10	1	-	-	-	3	-	4	-	4	-	-	-	-	1	-	-	-	-	-
IIIm1	2	12	-	-	-	-	-	-	5	1	-	-	-	-	-	1	-	-	-	-	1
IIIn1/2/3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-
IVa1	-	8	-	-	-	-	8	-	1	-	1	-	-	-	-	-	-	1	-	-	9
IVa2	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-
IVa3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IVa4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IVa6	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IVb36	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IVbb1	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IVg1	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
IVk3	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-
IVk4	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
IVk7	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-
Totals	45	78	16	6	9	7	171	2	66	6	19	5	2	1	3	166	25	35	10	46	49
	MV	HL	CR	GF	G	L	MCL	B	KC	McE	PR	BM	RB	MA	MM	HCL	HCU	PM	PF	SM2	RI2

Table 3: Site GBP indicated by Diagnostic Beads

	GBP1	GBP2	GBP3	Interpretation of time period
	1580-1600	1600-1625/30 DH1 1609-24	1625/30-1650 DH2 1624+	
MV	-	37	-	GBP2
HL	1	16	23	GBP2-3a
CR	-	3	4	GBP2-3a
GF	-	4		GBP2 (-3a?)
G	-	7	2	GBP2-3a
L	-	-	7	GBP3b
McL	1	110	13	GBP2-3a
KC	3	10	26	GBP3a-3b
McE	-	1	4	GBP3a-3b
PR	2	4	6	GBP2-3a
BM	-	-	1	GBP3a-3b
MA		1	-	GBP1-2
MM		2		GBP1-2
HCL		155	1	GBP2-3a
HCU	1	14	1	GBP2-3a
PM	-	1	21	GBP3a-b
PF		-	7	GBP3b
SM2	-	-	41	GBP3b
RI2	2	35	3	post GBP3

Table 4: Site Relationships Suggested by Repeated Bead Types (maximum possible 83)

	MV	HL	CR	GF	G	L	McL	B	KC	McE	PR	BM	RB	MA	MM	HCL	HCU	PM	PF	SM2	RI2
MV	-	7	1	3	1	0	2	0	5	1	3	0	0	1	0	4	4	1	0	0	2
HL	7	-	6	3	1	0	6	1	15	2	11	4	1	0	0	9	10	5	2	1	6
CR	1	6	-	0	1	0	4	0	9	0	4	1	0	0	0	1	2	2	1	0	1
GF	3	3	0	-	1	0	2	0	0	1	0	0	0	0	0	3	2	0	0	0	1
G	1	1	1	1	-	0	1	0	1	1	1	0	0	1	0	1	1	0	0	0	0
L	0	0	0	0	0	-	0	0	1	1	0	0	0	0	0	0	0	1	1	1	1
McL	2	6	4	2	1	0	-	0	4	0	4	1	1	0	0	3	3	1	1	0	3
B	0	1	0	0	0	0	0	-	1	0	0	0	0	0	0	0	0	1	1	0	1
KC	5	15	9	0	1	1	4	1	-	2	8	2	0	0	1	5	5	8	3	2	6
McE	1	2	0	1	1	1	0	0	2	-	0	0	0	0	0	2	2	1	1	1	2
PR	3	11	4	0	1	0	4	0	8	0	-	3	1	1	0	3	3	3	1	1	2
BM	0	4	1	0	0	0	1	0	2	0	3	-	0	0	0	1	0	2	1	1	2
RB	0	1	0	0	0	0	1	0	0	0	1	0	-	0	0	0	1	0	0	0	1
MA	1	0	0	0	1	0	0	0	0	0	1	0	0	-	0	0	0	0	0	0	0
MM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	-	0	0	0	0	0	0
HCL	4	9	1	3	1	0	3	0	5	2	3	1	0	0	0	-	5	2	0	0	3
HCU	4	10	2	2	1	0	3	0	5	2	3	0	1	0	0	5	-	3	1	1	5
PM	1	5	2	0	0	1	1	1	8	1	3	2	0	0	0	2	3	-	5	3	4
PF	0	2	1	0	0	1	1	1	3	1	1	1	0	0	0	0	1	5	-	2	4
SM2	0	1	0	0	0	1	0	0	2	1	1	1	0	0	0	0	1	3	2	-	2
RI2	2	6	1	1	0	1	3	1	6	2	2	2	1	0	0	3	5	4	4	2	-

Conclusions and Speculations

- (1) Bead types Ib8, Ibb4 and Ila20 may be diagnostic of GBP2, and bead types Ia9, Ib1, Ibb1, Id1, Ila23, Ila31, Ila44, Ilg5, IIIa1, IIIbb1, IVbb1 of GBP3.
- (2) The continuing presence of GBP1 and GBP2 beads at GBP3 KC, and post-Dispersal (1652 +) RI2, sites may be evidence that the popularity of certain bead types lasted well into succeeding periods, possibly as much as forty years (R. Hancock, pers.com.). It may also be that the chemistry of navy blue and white beads made for stronger and more wear-resistant beads than that of other colours.
- (3) The present samples indicate that MV, GF, MA and MM sites are contemporary and belong to GBP2. This GBP includes the visit of Samuel de Champlain and Joseph le Caron *et al* in 1616.
- (4) The present samples indicate that HL, CR, G, McL, PR, HCL and HCU sites were to some extent contemporary with each other and possibly with the above GBP2 sites, but extend from GBP2 into GBP3a. Evidence from other sources suggests the HCL and HCU sites existed at the time of Champlain (1616, GBP2), but that HL, CR and possibly G existed until the time of the arrival of the Jesuits in 1639.
- (5) The present samples indicate that the KC, McE, BM and PM sites are contemporary belong to GBP3. These sites were occupied until the 1650 Dispersal.
- (6) The L, BM, PM and PF and SM2 sites are indicated as belonging to GBP3b, contemporary with each other and partly so with the GBP3 sites.
- (7) The large, full-term and extensively examined SM, YM, and MQC sites, which produced European trade goods but no glass beads, are presumed from this negative evidence to belong to GBP1. The same presumption suggests that the MA and MM sites, also extensively excavated, commenced in GBP1, and, from the small number of GBP2 beads, lasted into early GBP2.
- (8) Assuming that Petun villages moved to the next site northerly and in the next GBP (see map), then, based on the present meagre sample the following are suggested:-
 - (i) the GBP1 SM people moved successively to the GBP2 MV, the GBP2-3a HL site, the GB3 KC and the post-Dispersal RI2 site;
 - (ii) the GBP 1 YM and MQC people appear to have moved successively to the GBP2-3a PR, the GBP3 BM, and the GBP3a SM2 and possibly post-Dispersal RI2 sites. Alternative interpretations are below (iv). However, other data indicates YM did not remain, having no successor in the area, and that the GBP2-3a PR site has no GBP1 antecedent in the area;
 - (iii) the GF site is indicated as GBP2 because of the absence of a GBP3 bead. The small sample may be at fault here, as other evidence suggests it was a GBP2-3a site. Elsewhere ((2) above) it has been deduced that some white GBP2 beads had a life span which extended into later periods. The GF site's successor is not clear, possibly the GBP3 McE site, and later the post-Dispersal RI2;
 - (iv) the GBP2 MA and MM people moved to GBP2-3a HCL and HCU, then to GBP3 PM and PF sites, then partly to GBP3a SM2 and to post-Dispersal RI2. This movement is of pairs of villages.

These conclusions may be revised as more beads become available. Particularly the inference that the large, rich and well established pair of GBP2 villages, MA and MM, have no GBP1 antecedents in the Petun area seems very unlikely. Searching further south for a pair of candidate GBP1 villages the adjacent YM and MQC sites are found. Whether the material cultures of the four sites are sufficiently similar to indicate a connection awaits further study.

It is not to be expected that every GBP2 village necessarily has a GBP1 ancestor in the area. In 1616 (i.e. GBP2) two villages were under construction (Champlain 1929:96). These may result from the routine replacement of earlier villages, but the fact they were being constructed in the winter might suggest they were for new or expected arrivals, whose previous villages were consequently elsewhere. As noted above, that MA and MM are themselves GBP1-2 is a possibility supported by the scarcity of beads on the two large sites.
- (9) If Ian T. Kenyon's suggestion is valid that the rise in popularity of red beads in GBP3 relates to the revival of traditional healing and shamanist cults, this revival occurred among the Petun.

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