

Problems of Huron Origins¹

BY J.N. EMERSON²

Using the direct historic approach, R.S. MacNeish, senior Archaeologist, National Museum of Canada, has presented a careful theory of Huron origins based upon ceramic seriation data. In general I concur with his statement made in 1952³. This paper offers additional information gathered since that time and adds certain analytical refinements which supplement and largely confirm the pioneer work of MacNeish.

This theory, which has been labeled "the MacNeish-Emerson theory"⁴, states in direct and simple terms that Ontario Iroquois culture began in central southwestern Ontario on the north shore of Lake Erie. From this nucleus a group split off, migrated eastward to the Toronto area, and settled in the Black Creek and Humber valleys. They built villages and, following the Iroquois pattern of abandonment and relocation, gradually moved northward in prehistoric times until they ultimately formed at least part of the historic Huron population of Simcoe County, Huronia proper. This paper seeks to document that part of the theory which concerns the movement northward from the Black Creek valley to Simcoe County.

The theory and the analysis are based upon four assumptions which are generally accepted by American archaeologists. First, pottery is a sensitive index of cultural inter-relationships; second, rim sherds can be systematically typed; third, samples which exhibit a very considerable degree of similarity are more closely

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³ MACNEISH, 1952; and see also EMERSON, 1954, 1956, and 1959.

⁴ RIDLEY, 1958.

related culturally and chronologically than those which do not; and fourth, pottery types show a development which follows a normal distribution curve — that is, ceramic type becomes discernable, acquires a peak of popularity and then decreases until it dies out. If these assumptions are granted, it becomes possible to construct a developmental and chronological series which demonstrates the origin of Huron pottery, and presumably at the same time, the origin of the Huron Nation.

Chart 1 indicates the geographical location of the ten sites which are considered in this analysis. The historic sites are indicated by a solid black circle and the prehistoric sites are shown by a white circle. The latter are located in the southern portion of the area studied, the former in the northern portion.

All of these sites are located conveniently close to water. Most were built upon plateau-like elevations with banks which slope sharply down to streams or rivers. All are upon sandy, well-drained soil which was well adapted to the Iroquois method of cultivating corn, beans and squash. The average village occupied ten acres, but these varied in area from five acres (Bosomworth) to twenty-five acres (Warminster).

Movement was dictated by the water systems, and was largely confined to the watersheds of the Humber and Nottawasaga Rivers. A height of land called the Oak Ridges Moraine separates the two watersheds. The Nottawasaga River flows north from the Moraine, the Humber, south. The western settlement area ended at the sharply-rising cliff face of the Niagara Escarpment which stretches north from Hamilton to Collingwood and Owen Sound. The geographical features appear to have had a funneling effect which channeled movement northward to Huronia proper. Historic Huronia lies within the area bounded by a line connecting Barrie, Orillia, Midland and Matchedash Bay. The natural barriers of Lake Simcoe on the east and Georgian Bay on the north furthered the funneling effect. The rugged granite outcrops of the Muskoka section of the Laurentian Shield inhibited settlement farther north and east. Thus the geographical and ecological factors reinforce a theory of northward migration and gradual population concentration.

All of the sites except Orr Lake and Sidey-Mackay were excavated by the University of Toronto. The Sidey-Mackay Site on the Nottawasaga River near Creemore, Ontario, was excavated and reported⁵ upon by the late William J. Wintemberg of the National Museum. The MacMurphy Village borders Silver Creek near Collingwood, Ontario. It does have an underlying prehistoric component which is not dealt with in this report⁶. The Graham-Rogers Site touches on Innisfil Creek, a tributary of the Nottawasaga River, a few miles to the northeast of Cookstown, Ontario⁷. Warminster lies near the Coldwater Road to the northwest of Orillia. This site has been identified as the village of Cahiaque, capital of the Huron Nation, visited by Champlain⁸. The Bosomworth Site on a tributary of Innisfil Creek, which in turn flows into the Nottawasaga River, is located to the northwest of Bradford, Ontario. The Seed and Mackenzie Sites are on the Humber River. Black Creek and Parsons are both on Black Creek, a tributary of the Humber located well within the northwest section of Metropolitan Toronto.

This study stands on a firm foundation. A ceramic sample of over five thousand analyzable rim sherds forms the basis of the historical construction (see Chart 2). It should be noted that each site produced more than MacNeish's acceptable minimum sample of two hundred analyzable rim sherds. The MacMurphy series forms one of the finest available in Ontario to date.

Intensive study reduced the pottery to types recommended by MacNeish⁹. This work, done by MacNeish, Robert Dailey¹⁰, Douglas Bell and myself is summarized in Chart 3. An analysis then was made to see if the ceramic types follow a normal distribution curve. To find this I calculated the percentage totals of all Huron ceramic types for each of the sites studied (such as Huron Incised, Sidey Notched, Warminster Horizontal and

⁵ WINTEMBERG, 1946.

⁶ BELL, W.D., 1953.

⁷ BELL, W.D., 1952.

⁸ MCILWRAITH, 1946, 1947.

⁹ MACNEISH, 1952.

¹⁰ DAILEY, 1953.

the others defined as Huron by MacNeish). This information is presented in Chart 4.

In addition to totaling the Huron types found, data was assembled for four additional categories. The first was the Neutral series such as Lawson Incised, Pound Blank and others. The second included "neck-decorated" series, such as Black Necked and Pound Necked (abstracted from MacNeish's Huron and Neutral types respectively). The third used the Lalonde High-Collared type defined by Ridley¹¹. The fourth comprised a category of "Others" including all "trade sherds" such as Syracuse Incised, Dutch Hollow Notched and Onondaga Triangular, as well as those sherds not possible to type.

Certain liberties were taken with the data which I consider justified. The inclusion of some ceramic types as Huron might be debated. Seed Incised was classified as a Huron type rather than a regional variant peculiar to the Seed Site because it possesses basic Huron form and design techniques, as well as the alien impressed body treatment. Seed Corded was also included under Huron because of its affinity to Seed Incised. Susquehannock High-Collared at the Graham-Rogers Site was classified as possible Huron type because of its doubtful genetic relationship to the distant Susquehannock High-Collared type proper. The same applies to Genoa Frilled at Orr Lake and Warminster. As a ceramic type it is not sufficiently well known or defined in the area. However debatable these inclusions may or may not be, they do not seriously alter the general picture whether they are included under the category "Huron" or under the heading of "Others".

Certain interesting observations can be made from the assembled data. There are at least two major trends evident. The Huron types increase and the Neutral types decrease in a constant ratio. Two minor trends also appear: Neck-decorated pottery and Lalonde High-Collared ware both appear early in the series, increase somewhat and then gradually decrease. They never quite die out but last into the historic period proper. Significantly, sites

¹¹ RIDLEY, 1952a and 1952b.

which produce neck-decorated pottery at the historic period do not produce the Lalonde High-Collared type, and, of course, the reverse is also true. Finally, the greatest degree of trade and site specialization occurs in the middle portion of the series, as a study of the "Others" category demonstrates.

For purposes of clarity and graphic presentation, the distribution data for the ceramic groups is also presented in bar-graph form in Chart 5. The trends discussed above are vivid and convincing in this format. This presentation method suggests another interesting hypothesis for plotting the data. When Huron and Neck-decorated types are lumped together, the dual unit thus formed tends to increase by an increment of some five to ten percent, and the two taken together tend to produce a much more normal distribution curve than either taken alone. This suggests that the decorated-neck ceramic types are closely related to Huron types in their development.

MacNeish, of course, classified Black Necked as a Huron type; but this could be difficult to do for Pound Necked. The corollary of this relationship between the Huron and Decorated-neck types is that there seems to be a similar connection between Lalonde High Collared and the Neutral types in the early part of the series; after that, however, the picture is not clear.

Concerning the origin of the Hurons, ceramic trends seem suggest that the order of the villages on the ceramic distribution charts may also represent the cultural and temporal series that produced historic Huron. There would need to be a minor shift or two; for example, the prehistoric Seed Site obviously precedes historic Sidey-Mackay. However, I felt that such a broad and general comparison could perhaps be both deceptive and misleading. Consequently a more detailed study of inter-site relationships was made.

This task was accomplished by adapting the analytical technique used by Brainerd in California¹². Coefficients of similarity were calculate for the ten sites, each against the others, and the results presented in Chart 6. The coefficient of similarity

¹² BRAINERD, 1951.

is expressed by a number falling between 0 and 200 and allows one to assess rapidly the degree of similarity between two sites — in this case ceramically. If the percentage distributions at the two sites are *identical* the coefficient will be 200. If the two sites are *completely unlike*, the coefficient will be 0. In practice such coefficients are probably never found. Both low and high indices appear in the chart; for example, Graham-Rogers has an index of only 36 with Bosomworth, but a coefficient of 145 with Mac-Murchy. Dividing the coefficient by two gives the percentage similarity between the two sites. For example, Orr Lake and Warminster, sharing a coefficient of 144, are 72% alike.

The order of the sites in the coefficient of similarity chart is *not* the same as the order of the percentage distribution graph (Chart 5). There are both minor and major differences, such as the rather drastic realignment of Orr Lake and Warminster. The coefficient chart expresses the best statistical fit of the coefficients. This means that with the sites placed so that the most similar ones are adjacent, the highest coefficients will occur along the upper left to lower right diagonal axis indicated by the "x's", and the lowest indices will appear in the lower left and upper right areas of the chart. None of the coefficients fit this pattern, but several approximate it. For example, the coefficients for Mackenzie are 86, 120, 143 which all increase toward the central diagonal from the left side, and 122, 106, 110, 96, 87 and 70 which all increase (except the index of 110) towards the right side of the chart.

The order presented contains the smallest number of deviations as far as I can determine; it thus represents the most probable relationships between these sites. Studies are currently being made to determine more efficient techniques of assessing this order and for evaluating the significance of the deviations, positive and negative¹³. For our purposes, however, the significant fact brought out by the coefficient chart is that the variations between this and our initial ordering are sufficiently great to suggest that the deviations may well be the result of temporal

¹³ Marcia and Robert Ascher are making interesting progress in this area.

and geographical factors which are neither reflected nor accounted for in the coefficient chart. However, certain consistent clusterings still are evident in both charts — e.g., Orr Lake and Warminster are still adjacent, and Black Creek, Bosomworth and Parsons still occupy the same order at the bottom of both charts. Thus some pattern of consistency is apparently present.

In attempting to assess the temporal and geographic relationships in greater detail, the coefficients of similarity again proved to be helpful. A study of the degrees of relationship was made, and the information thus found assembled in Chart 7. Three columns are used to indicate which sites are most alike ceramically, second most alike, and third most alike. This information was used to construct the "configuration map" and the "relational map" which follow.

The configuration map was produced by joining a given site to the one which it most closely approximates ceramically. For example, Graham-Rogers is most like MacMurchy. The relationship is often reciprocal (e.g., MacMurchy most resembles Graham-Rogers), but not invariably (e.g., Black Creek is most like Bosomworth and Mackenzie, but Bosomworth is most like Parsons). The resulting "configuration" is presented in Chart 8. Certain results are at once evident. There are definite "site clusters". Orr Lake and Warminster cluster in Huronia proper at the full historic period. MacMurchy and Graham-Rogers are grouped upon what might be considered the western and southern "fringes" of historic Huronia. In a similar way, Sidey-Mackay and Mackenzie cluster, as do Bosomworth and Parsons. Black Creek and Seed have somewhat peripheral positions.

Certain other relationships are of considerable interest: first, sites which are geographically close are not necessarily most closely related culturally (i.e. ceramically); and second, the linking of pre-historic sites culturally with historic sites suggests the direction of cultural movement — e.g., from Mackenzie to Sidey-Mackay. At this point it would be very tempting to link these "clusters" into a consistent sequence. But further study of the coefficients of similarity in terms of second and third degrees of

similarity provide a more realistic basis for doing this. The results of this analysis is presented in the "relational map" Chart 9.

This map is a more dynamic expression than the configuration map which largely depicts static end points (except for the suggested temporal movement involving Mackenzie and Sidey-Mackay). The relational map suggests temporal and spatial movement by the arrows drawn on it. Assessment may engender some bias and subjectivity, but a considered evaluation is possible in most cases. For example, MacMurchy shows a secondary relationship to Mackenzie and a third-degree relationship to Sidey-Mackay. This suggests that a connection should be drawn between MacMurchy and Mackenzie. The direction could not be from historic MacMurchy to prehistoric Mackenzie — this would invert the time factor. Nor could we join Mackenzie to MacMurchy directly, for the initial first-degree close relationship between Mackenzie and Sidey-Mackay has been established in analysis. Therefore an arrow was drawn for Mackenzie to Sidey-Mackay and a small, secondary offshoot arrow was run from this main branch to MacMurchy. At the same time the arrow joining Sidey-Mackay and MacMurchy was made reciprocal or two-directional, because they both exist in this third-degree relationship.

Obviously this is a complex problem of analysis. Translated into historical and cultural terms, the complex interlinking of these three sites suggests the following explanation. During prehistoric times a ceramic tradition flourished and was expressed in pottery types such as those found at Mackenzie (and presumably other unexcavated sites like it). This tradition continued and slowly changed, but it still showed 76% of its original makeup by the time its influence reached the contact period Sidey-Mackay Site decades (or centuries?) later. Moreover, certain elements of this tradition were so strong that they were still found to the extent of 60% similarity at the historic period MacMurchy Site. This sharing is greater than its 56% similarity with Sidey-Mackay, which is geographically and temporally much closer. Thus it would appear that this original ceramic tradition moved

northward and intimately influenced the ceramics of contact-period sites, which in turn influenced those to the east in Huronia proper (Orr Lake and Warminster); while a Mackenzie-like tradition influenced villages on the southern and western fringes of Huronia, thus causing some degree of cultural differentiation from Huronia proper.

The above example and its accompanying explanation serve to illustrate the complexity of the problem, but it is not an impossible one. Many of the linkages are quite simple and straightforward. For example, Graham-Rogers shows a third-degree relationship to Mackenzie, thus the arrow must move from Mackenzie to Graham-Rogers following the prehistoric-historic rule. The same is true of Sidey-Mackay's second-degree relationship to Seed, so the developmental direction is from Seed to Sidey-Mackay, as are the relationships of Orr Lake and Warminster with Mackenzie. It would not be realistic to join both of the former sites to Mackenzie because of the large geographical distance and temporal gap. Since both were connected to Sidey-Mackay and it in turn to Mackenzie, it seemed most realistic to draw developmental arrows from Sidey-Mackay to both Orr Lake and Warminster. This was done to suggest that the ceramic tradition of the Mackenzie people persisted to Sidey-Mackay and continued to influence the two historic sites.

It would be tedious and beyond the scope of this paper to proceed to explain every developmental arrow on the chart. However, each has been drawn with care and consideration. At this point a summary of what I believe the chart demonstrates is in order, for this is, in essence, a statement of a theory of Huron origins in the light of the data studied.

The development began at the Black Creek Site, whose antecedents *may* lie in southwestern Ontario. Developments proceeded to the Parsons Site with some modification and to Mackenzie Site with less. Parsons and Mackenzie may have been contemporary villages, for certain cultural differentiations seem to have been taking place. Mackenzie was carrying on a Black Creek tradition which seems to have been destined to produce

ultimately a classic Huron complex, while Parsons appears to have been undergoing considerable Neutral influence, and Lalonde High-Collared sherds were beginning to appear. This differentiation seems to have been continued and emphasized in the Bosomworth Village which was, however, gradually swinging over to the main trend by contact times at Sidey-Mackay. Nevertheless the gap between Bosomworth and Sidey-Mackay is a considerable one (only a 52% sharing), so that several steps in the development have yet to be filled. The answer to this question may be found at sites in Innisfil Township on the south shore of Kempenfeldt Bay¹⁴ which produce Lalonde High-Collared type pottery and the Lalonde sites in Huronia proper¹⁵. This northward movement may have been a fairly rapid process of establishing small and rather distant "satellite villages" related to parent nuclear towns located in the southern and mid-southern areas.

At the same time, back in the lower Humber Valley, the Mackenzie tradition was being carried on at the Seed Site despite considerable external influence perhaps from Ohio (Baum Corded, Seed Corded, Seed Incised). Slowly, these developments crystallized at Sidey-Mackay and probably several sites like it. This tradition persisted long enough to contribute over 50% of its features to true historic Huron. At the same time it was sufficiently strong to influence the peripheral or fringe Huronian developments, particularly to the west. It is also interesting that the thread of the Lalonde High-Collared type, lost at Bosomworth, is picked up once again in this fringe Huron area, for it occurs at the Grahams-Rogers Village, which may well have passed it on as a minor type to sites such as MacMurphy.

Thus, in terms of a theory of development, movement, cultural differentiation, continuity, mergence and reparation, we appear to have gone the complete circle and have arrived once more at our initial order of site development. The final suggestion is offered schematically below.

¹⁴ POPHAM, 1950.

¹⁵ RIDLEY, 1952a.

WARMINSTER
ORR LAKE

MAC MURCHY

GRAHAM-ROGERS

SIDEY-MACKAY
SEED

BOSOMWORTH

MACKENZIE

PARSONS

BLACK CREEK

Previously the "MacNeish-Emerson" theory of Huron Origins was criticized as being "wrong" and based upon "unwarranted selection of data"¹⁶. I trust this paper, presenting a segment of the documentation of the Emerson part of theory, will not be dismissed in a similar undocumented, rhetorical manner.

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¹⁶ RIDLEY, 1952b.

Chart 1. SITE LOCATIONS

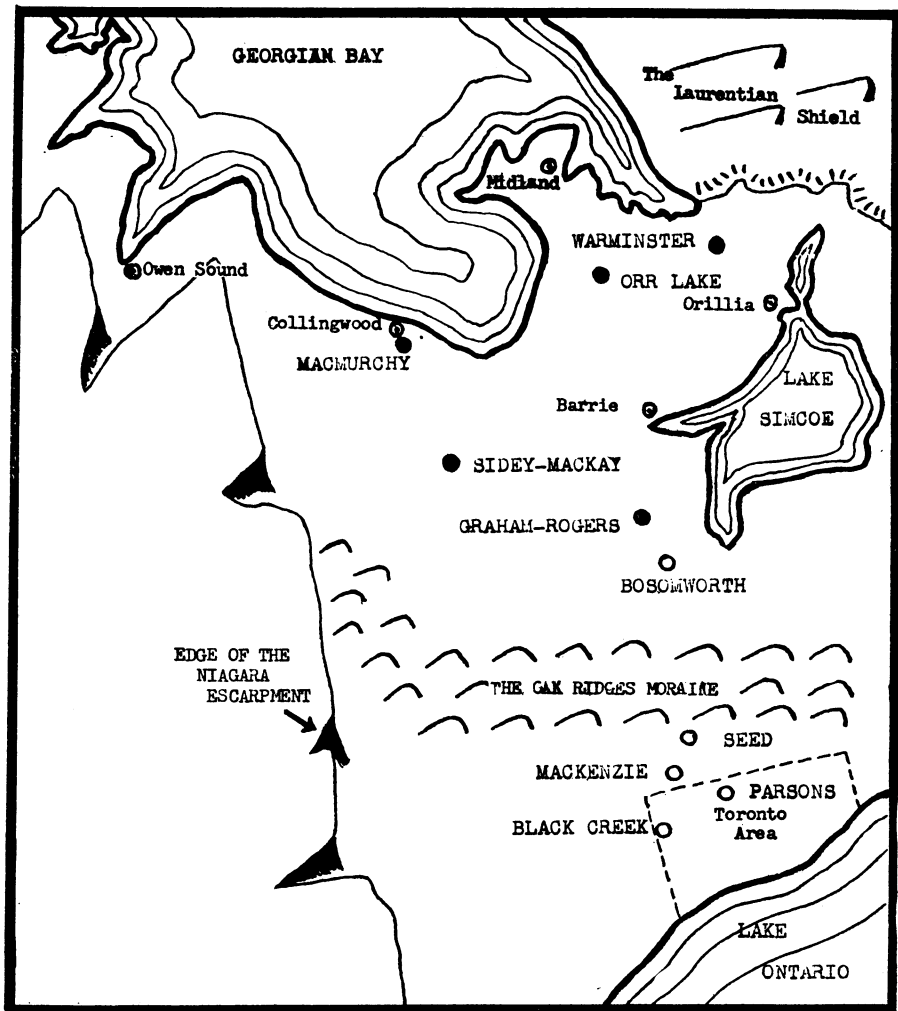


Chart 2. CERAMIC SAMPLE STUDIED.

WARMINSTER	291 rimsherds typed by R.S. MacNeish
ORR LAKE	346 rimsherds typed by R.S. MacNeish
SEED	355 rimsherds typed by R.S. MacNeish
SIDEY-MACKAY	278 rimsherds typed by R.S. MacNeish
MACKENZIE	226 rimsherds typed by R.S. MacNeish
BLACK CREEK	378 rimsherds typed by R.S. MacNeish
PARSONS	647 rimsherds typed by R.C. Dailey
GRAHAM-ROGERS	443 rimsherds typed by W.D. Bell
MACMURCHY	1076 rimsherds typed by W.D. Bell
BOSOMWORTH	691 rimsherds typed by J.N. Emerson
TOTAL:	4731 rimsherds.

Chart 3. PERCENTAGE DISTRIBUTION OF CERAMIC TYPES AT SITES STUDIED

CERAMIC TYPES:	Sites:									
	WARMINSTER	ORR LAKE	GRAHAM-ROGERS	MACMURCHY	SIDEY-MACKAY	SEED	MACKENZIE	PARSONS	BOSOMWORTH	BLACK CREEK
ONTARIO HORIZONTAL	1	1			1	1	4			12
LAWSON INCISED	1	2	1		5	6	11	31	31	11
POUND NECKED								11	6	3
NIAGARA COLLARED			1							2
LAWSON OPPOSED		2			4	3	2	15	5	3
BLACK NECKED	2	3			5	4	2	8	19	30
RIPLEY PLAIN						1				
POUND BLANK								1		
HURON INCISED	44	45	14	33	28	30	35	16	16	23
WARMINSTER HORIZONTAL	13					1	1			5
SIDEY NOTCHED	13	11	53	48	22	5	19			
SEED INCISED		1	4	2	8	26	7			1
CAYUGA HORIZONTAL						1	5			
ONONDAGA TRIANGULAR					1		4	10		2
SEED CORDED				1		10	2			
CAYADUTA INCISED					4	1	3			
GENOA FRILLED	2	20								
MIDDLEPORT OBLIQUE										3
SYRACUSE INCISED					1	1				
RICHMOND MILLS INCISED			1		3	1	1			2
ROEBUCK LOW COLLARED					1	1				
DURFEE UNDERLINED					2	1	1			1
WARMINSTER CROSSED	22	10	2		8	1			11	
SIDEY CROSSED		1			3	1	1		1	
SENESCA BARBED	1	1								
BAUM CORDED						2				
DUTCH HOLLOW NOTCHED			4	2				1		
LALONDE HIGH COLLARED			1	2		2		3	11	
SUSQUEHANNOCK HIGH COLLARED			10							
MACMURCHY PLAIN SCALLOPED *				1						
COLLINGWOOD HORIZONTAL				1						
MACMURCHY SCALLOPED				2						
BLUE MOUNTAIN GROOVED				1						
BLUE MOUNTAIN PUNCTATE				1						
COLLINGWOOD COLLARLESS				1						
GRAHAM-ROGERS PLAIN			1	1						
INNISFIL PLAIN			1							
INNISFIL COLLARLESS			1							
COLLINGWOOD HORIZONTAL			1							
MISCELLANEOUS	1	3	6	4	4	1	2	4	0	1

* All the ceramic types below this point are defined by W.D. Bell and are as yet unpublished. All the others, except LaLonde High Collared and Susquehannock High Collared brought to our attention by Ridley (1952), are found in NacNeish's "Iroquois Pottery Types".

Chart 4. PERCENTAGE DISTRIBUTION
OF CERAMIC GROUPS

	Huron	Neutral	Neck Decorated	LaLonde	Others
WARMINSTER	92	2	2	0	4
ORR LAKE	88 ¹	5	3	0	4
GRAHAM-ROGERS	83 ²	1	0	1	15
MACMURCHY	84	0	0	2	14
SEED	74 ³	10	4	0	12
SIDEY-MACKAY	69 ⁴	10	5	0	16
MACKENZIE	64 ⁵	17	2	0	17
BLACK CREEK	29	29	33	0	9
BOSOMWORTH	28	36	25	11	0
PARSONS	16	47	19	3	15

¹ includes 20% Genoa Frilled

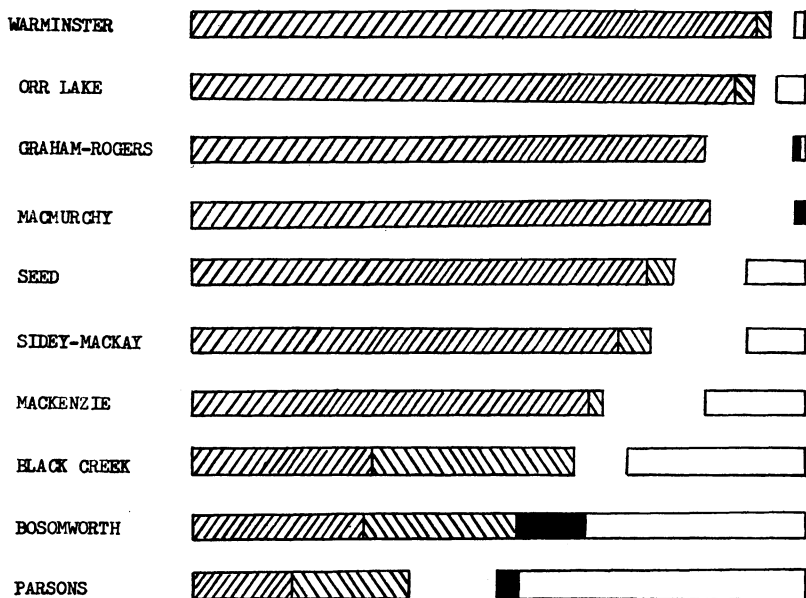
² includes 10% Susquehannock High Collared

³ includes 26% Seed Incised and 10% Seed Corded

⁴ includes 8% Seed Incised

⁵ includes 7% Seed Incised and 2% Seed Corded

Chart 5. CERAMIC GROUP PERCENTAGE DISTRIBUTION GRAPH



Graph Scale: 0 10 20 30 40 %

LEGEND:  HURON  NECK DECORATED
 NEUTRAL  LALONDE HIGH COLLARED

Chart 6. COEFFICIENTS OF SIMILARITY

	G R A H A M R O G E R S	M A C M U R C H Y	S I D E Y M A C K A Y	M A C K E N Z I E	S E E D	W A R M I N S T E R	O R R L A K E	B L A C K C R E E K	B O S O M W O R T H	P A R S O N S
GRAHAM-ROGERS	x	145	87	86	61	65	63	44	36	43
MACMURCHY	145	x	112	120	88	101	99	58	89	42
SIDEY-MACKAY	87	112	x	143	122	106	104	85	104	63
MACKENZIE	86	120	143	x	122	106	110	96	87	70
SEED	61	88	122	122	x	82	92	84	81	60
WARMINSTER	65	101	106	106	82	x	144	65	42	38
ORR LAKE	63	99	104	110	92	144	x	64	89	46
BLACK CREEK	44	58	85	96	84	65	64	x	96	86
BOSOMWORTH	36	89	104	87	81	42	89	96	x	133
PARSONS	43	42	63	70	60	38	46	86	133	x

Chart 7. ORDER OF SITE SIMILARITY

	FIRST DEGREE	SECOND DEGREE	THIRD DEGREE
GRAHAM-ROGERS	MAGMURCHY	SIDEY-MACKAY and MACKENZIE *	
MAGMURCHY	GRAHAM-ROGERS	MACKENZIE	SIDEY-MACKAY
SIDEY-MACKAY	MACKENZIE	SEED	MAGMURCHY
MACKENZIE	SIDEY-MACKAY	SEED	MAGMURCHY
SEED	SIDEY-MACKAY and MACKENZIE		ORR LAKE
WARMINSTER	ORR LAKE	SIDEY-MACKAY and MACKENZIE	
ORR LAKE	WARMINSTER	MACKENZIE	SIDEY-MACKAY
BLACK CREEK	MACKENZIE and BOSOMWORTH		PARSONS
BOSOMWORTH	PARSONS	SIDEY-MACKAY	BLACK CREEK
PARSONS	BOSOMWORTH	BLACK CREEK	MACKENZIE

* No divider is left in the column of the chart when the degree of relationship between one site and the other is essentially equal.

Chart 8. CONFIGURATION MAP

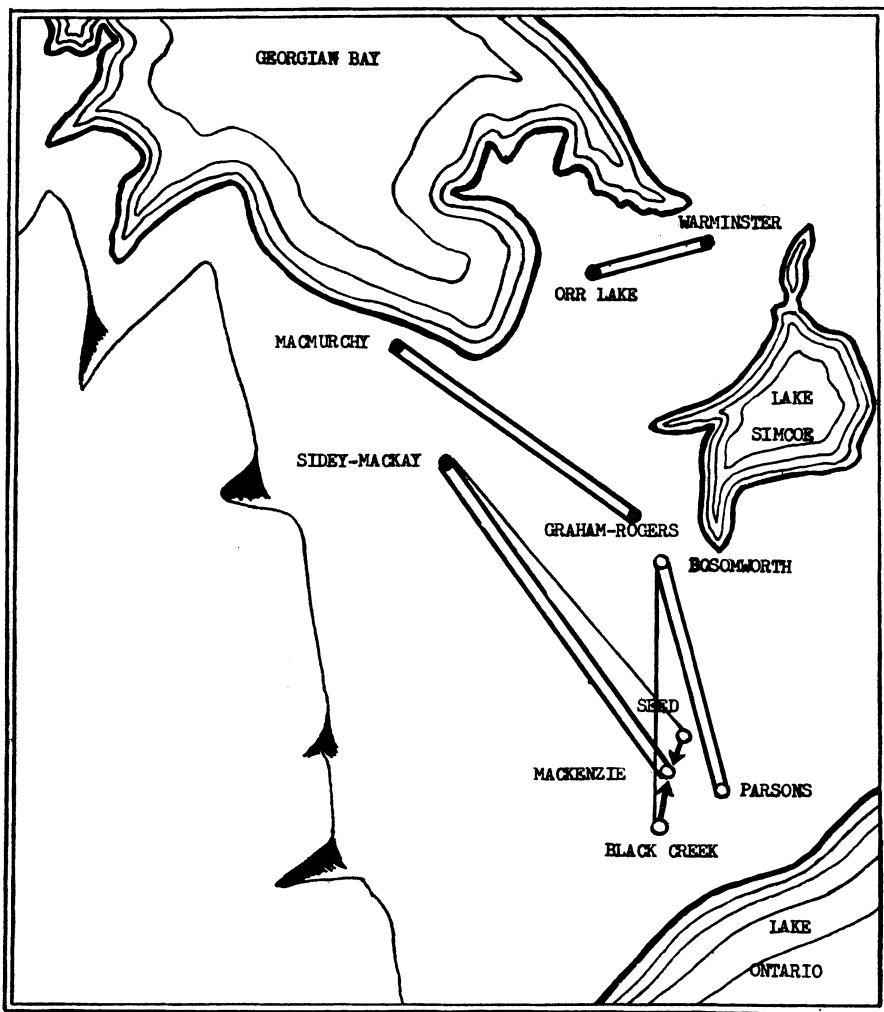
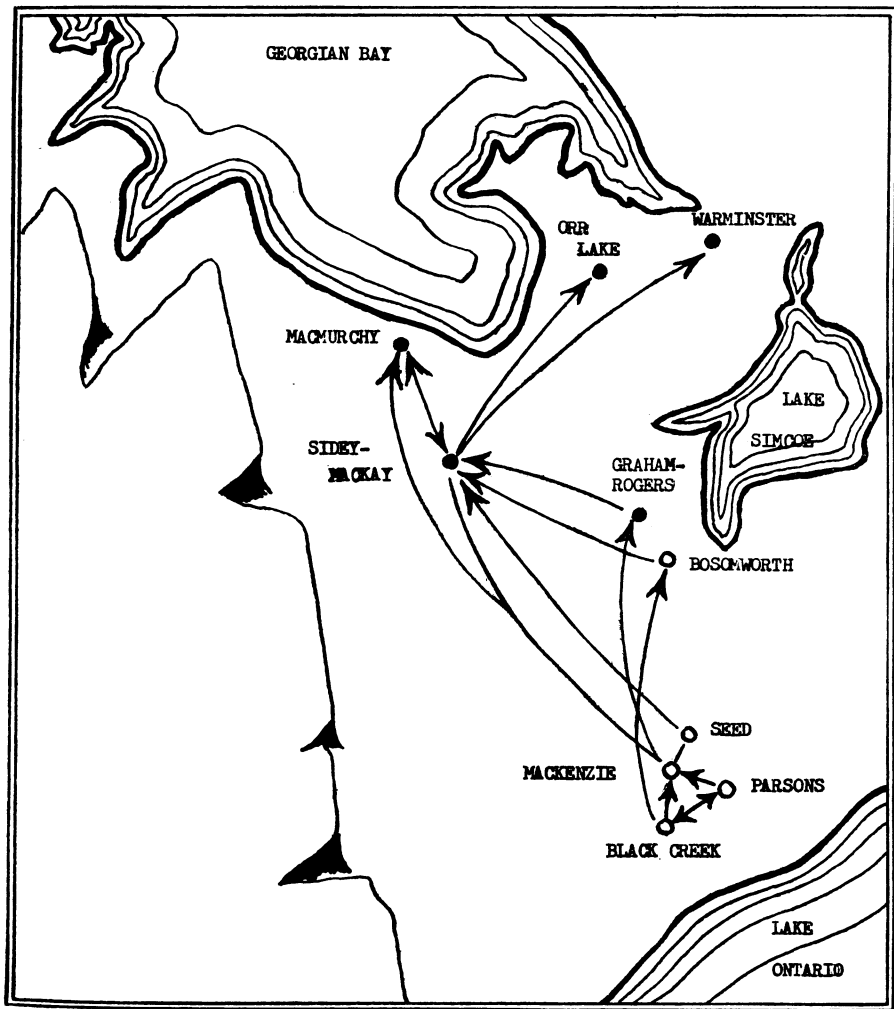


Chart 9. RELATIONAL MAP



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