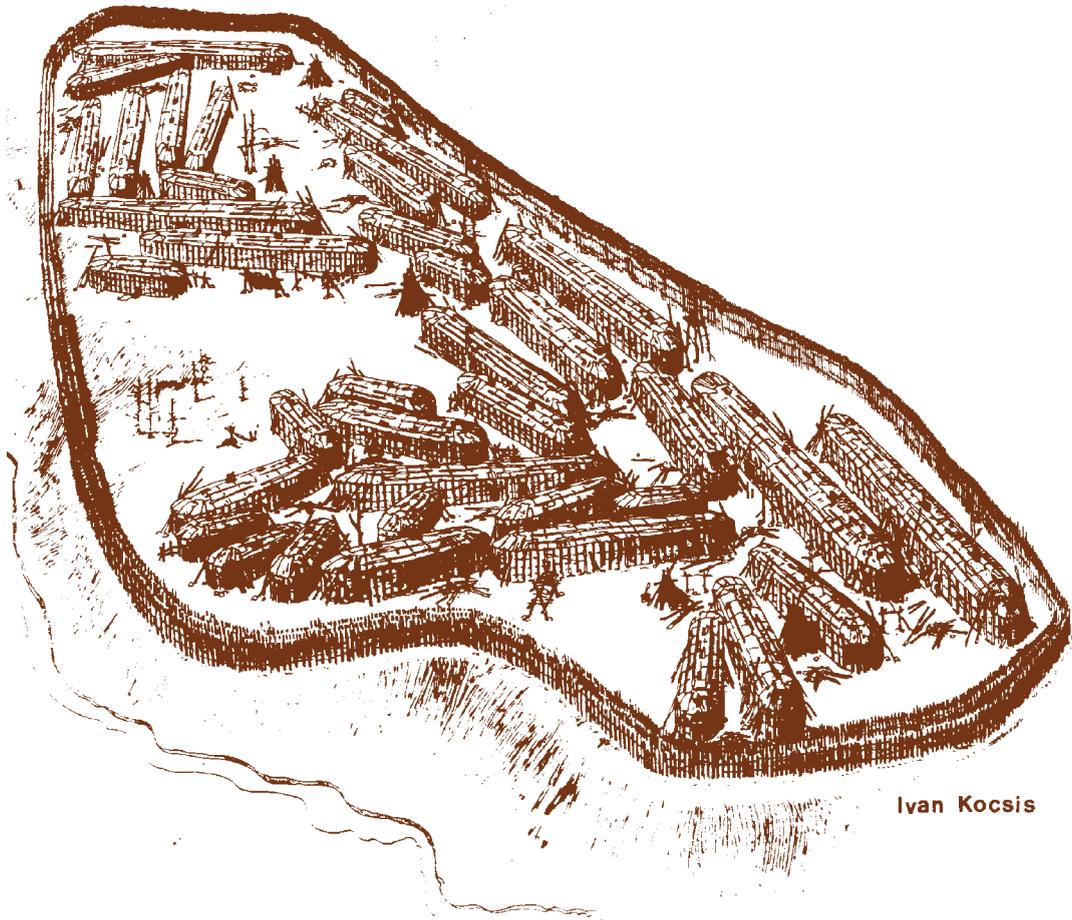


**The Draper Site,
an Ontario Woodland Tradition
Frontier Coalescent Village
in Southern Ontario, Canada:
*Looking Back, Moving Forward***



by

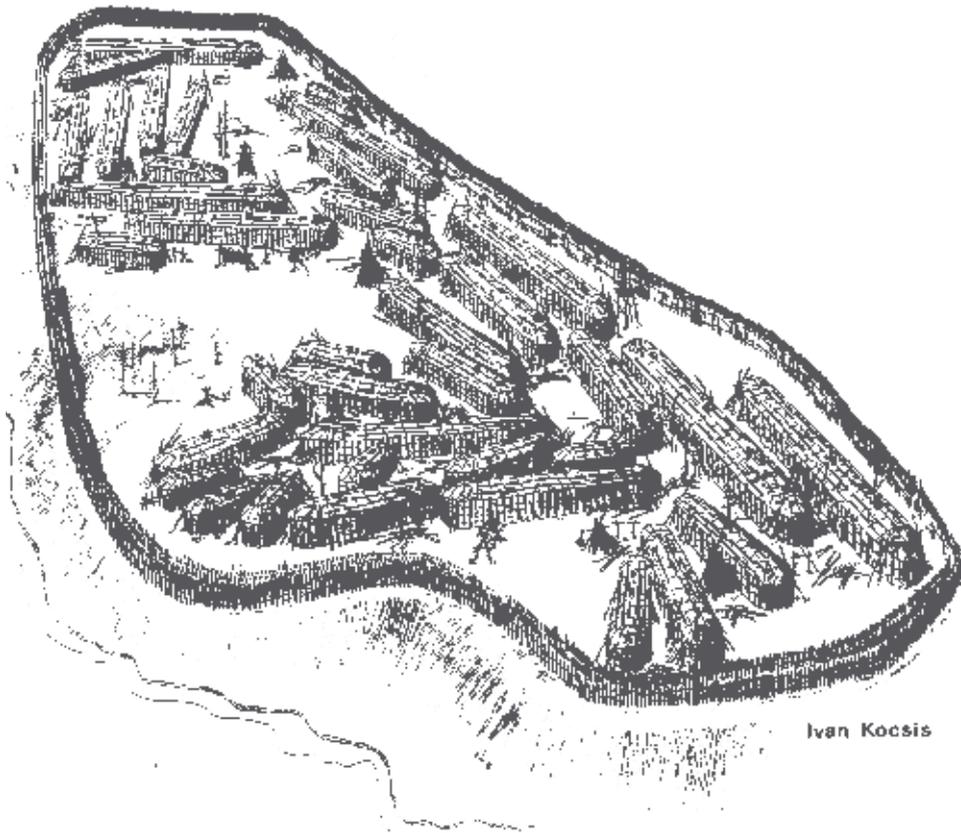
William D. Finlayson, Ph.D., F.R.S.C.

Forewords by Gidigaa Migizi, Michi Saagiig Nation Knowledge Keeper,
and Joyce M. Wright, Ph.D.

***Our Lands Speak* — Occasional Papers in Ontario Archaeology No. 2**

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Gratitude

Duffin Creek drainage has been occupied by Indigenous peoples for more than 10,000 years. For many millennia Anishinabek peoples lived by Lake Ontario fishing for salmon and wintering inland in smaller groups.

Recently, Anishinabek elder Gidigaa Migizi (Doug Williams) from Curve Lake published an oral history of the occupation of his people on their traditional lands on the north shore of Lake Ontario from Long Point in the west to Gananoque in the east. His book—*Michi Saagiig Nishnaabeg: This is Our Territory*—not only documents life in their territory, it also provides an account of how some Iroquoian peoples were given permission around A.D. 1000 to settle on some of the interior lands of Anishinabek territory to grow their crops. The Anishinabek maintained their traditional lifestyle based on hunting, fishing, and gathering which involved moving their sites seasonally as these resources became available. The Huron-Wendat lived in large villages often with associated special purpose sites.

Some of these early Iroquoians settled along the Duffin Creek. Over more than six centuries they moved northward up the Duffin Creek seeking new lands to plant their crops. Sometime after about A.D. 1615 they abandoned the Duffin Creek drainage. Since the latter part of their occupation of Duffin Creek at the Mantle site was contemporaneous with the occupation of what is today Simcoe County by Huron-Wendat, we know that these Iroquoians were not Huron-Wendat. Rather, they were one of a number of groups of Iroquoians who occupied the north shore of Lake Ontario but whose ultimate fate persists, obscured by the sands of time.

For many centuries, the Anishinabek and these Iroquoians lived in harmony on the Duffin Creek, traded, inter-married and shared a symbiotic lifestyle. They left behind the archaeological remains of their dwellings, some of which were surrounded by palisades for defense, many millions of artifacts, animal bones, and carbonized plant remains—traces of the food they ate and the tools they made, used, and discarded.

I am honoured to have been able to spend a large part of my career as an Ontario archaeologist studying these Indigenous peoples, and to assist in some small way by writing their archaeological history. I express my gratitude to the generations of these Indigenous peoples for the traces they left behind which help all of us understand who lived where, when, and how.

William D. Finlayson

Dedication

This volume is dedicated to the memory of
James Valliere Wright

A truly outstanding Canadian archaeologist whose curiosity, dedication, vision, and integrity, and whose life-long contributions to the dissemination of the results of archaeological studies to both the profession and the general public was truly remarkable.

This book is also dedicated to
Gidigaa Migizi (Doug Williams)

Elder and Knowledge Keeper for the Michi Saagiig Anishinaabeg, who consistently advocates for the inclusion of his People in Ontario's archaeological narrative. His unwavering commitment to recording and sharing the oral histories of his people has been a source of inspiration for this book.

Abstract

In 1975 and 1978 large-scale rescue excavations were undertaken at the Draper site, an Ontario Woodland Tradition, Iroquoian village located on lands to be developed as the New Toronto International Airport. These excavations were funded by Transport Canada and organized by the Archaeological Survey of Canada, National Museum of Man, and National Museums of Canada. Work was carried out in 1975 through a contract to The University of Western Ontario and in 1978 to the Museum of Indian Archeology (London), an affiliate of the university. Funds for analysis were also provided by the Social Sciences and Humanities Research Council of Canada.

This project resulted in the excavation of 4.25 ha of the Draper site which involved the screening of about 8,700 sq m of deposits (19.7% of the total area excavated). This included screening of undisturbed and plough-disturbed midden deposits, undisturbed and plough-disturbed deposits within and directly adjacent to longhouses, as well as a large undisturbed open area in one segment of the village.

The excavations resulted in the discovery that the site was comprised of three separate components: the Main Village which began as a small community consisting of about eight house structures and a visitor's house surrounded by four rows of palisades. This village underwent five expansions to become a very large village encompassing 39 house structures and one visitor's house. The first four expansions were surrounded by three rows of palisades while the final one was surrounded by four rows of palisades. South of the Main Village was the South Field comprised of seven longhouses. To the west of the Main Village was the single small Structure 42, now interpreted as a visitor's structure.

The excavations produced more than 170,000 analyzable artifacts and more than 1,200,000 grams of other artifacts such as fragmentary sherds and floral and faunal remains. Following the excavations, the laboratory processing, description, and analysis resulted in more than 50 publications, graduate theses, conference presentations, and unpublished reports.

This study provides a summary of our knowledge of the Draper site, its settlement types, and their cultural affiliation. This includes a further revision of James V. Wright's Ontario Iroquois Tradition with the definition of the Ontario Woodland Tradition by

Lawrence Jackson (2018, 13). The adoption of the Ontario Woodland Tradition provides a revised construct which recognizes the basics of the Ontario Iroquois Tradition as presented by James V. Wright (2004) and recognizes the contemporary and earlier occupation of much of southern Ontario by Algonquian-speaking people. It also recognizes the Oral Traditions of these people which record their permission to the Iroquois to settle on their lands about A.D. 1000. This provides additional support for the migration of ancestral Iroquoians into southern Ontario at that time. This, of course, negates current speculation that there was an in situ development of the Ontario Iroquoians from earlier Middle Woodland populations.

This study summarizes selected aspects of the reporting of most of the research done on the Draper site collections. This includes basic data on the strategies and methods of the excavations, the settlement patterns of the three parts of the site, as well as the artifacts' analyses completed and special studies undertaken.

New interpretations about the Draper site, based on this review of all work including a reanalysis of some of the settlement pattern data, discovered three misinterpretations of data, the realization of which provided new insights into the occupation of the Main Village, the South Field, and Structure 42. A detailed consideration of the study of the Draper houses by Karen Williams-Shuker (1997) resulted in this study recognizing the presence of menstrual houses in all segments of the Main Village. Similarly, the realization that House 22, a small structure like the visitor's house in the Core Village, was actually associated with the last expansion of the village. This provided new insights into the use of visitors' houses in relationship to the numbers of rows of palisades surrounding different segments of the Main Village and implications for understanding varying extents of warfare during the occupation of the village. A reconsideration of the available information on the South Field has resulted in new possible interpretations about the relationship of this component of the site to the Main Village and other sites nearby.

A new interpretation for the sequence of the expansion of the Main Village is presented as well as new insights into the use of strategic defensive planning in the positioning of houses as the village expanded. There is also a review of the evidence for a Neutral occupation of one segment of one house in the Main Village and a few other artifacts indicative of this occupation.

This study also examines significant numbers of archaeological surveys and test excavations undertaken on the Pickering Airport Lands between 1976 and 1978 under the overall direction of myself and the project direction by Dan Poulton in 1977 and

1978; the Seaton Lands to the south by Infrastructure Ontario and its predecessors since 1978; and on nearby lands by other agencies and private-sector developers. This review provides more data in support of an in situ development of one or more communities of Ontario Iroquoians beginning with the occupation of the Miller site and proceeding through a number of Pickering, Uren, Middleport, Black Creek-Lalonde, and Realignment substage villages and at times associated special purpose sites. Current evidence indicates that this is the only known area where there was such an in situ development from the 9th century Miller site to the 17th century Mantle site. What is extremely important is the recent dating to the Mantle site which indicates that it was contemporary with the historic Huron-Wendat village of Cahiague occupied at the time of Samuel de Champlain's visit in A.D. 1615. This dating also reveals that the occupants of Mantle and its probable predecessor villages of Spang and Draper are not Huron-Wendat sites, but Iroquoian sites occupied by another community of Iroquoians whose ultimate history is not currently known. This situation is generally similar to the development of the Iroquoians who occupied the Burlington and Crawford Lake localities reported by the author in his 1998 study of 76 Iroquoian sites in the Crawford Lake area and where the Middleport occupants of the Van Eden village and the Crawford Lake satellite/hamlet (the last of 16 sites which were sequentially occupied starting about A.D. 1000) disappeared with no evidence about their ultimate fate. The net result of these two studies is that it appears that there is no sequence of sites which can trace the development of Ontario Iroquoians from the Early Pickering substage to the historically documented Realignment substage sites in Huronia or the Fur Trade substage sites in Neutralia. One of the more important aspects of this study is a further refinement of the concept of Coalescent Villages developed by Jennifer Birch and Ron Williamson based on the almost complete excavation of the 17th century Mantle site. This current study presents the concept of Frontier Coalescent Villages and constitutes an expansion of the concept and the examples presented by Birch and Williamson. In part, this stems from my perspective and in-depth knowledge of the Draper site—likely the first Coalescent Village on Duffin Creek—and the way in which it grew from a small to a very large village. This viewpoint derives insights from aspects of the settlement pattern data and from the unique characteristics of certain artifacts which were absent from Mantle or settlement features not recognized by Birch and Williamson. It is important to stress that Mantle was different than Draper in that it was occupied probably 15 to 30 years after the abandonment of Draper and in times when the mechanisms used to integrate Draper as a Coalescent Village were absent,

or much reduced, at Mantle. One of the results of this is the rather chaotic settlement pattern of the second phase of Mantle described by Birch and Williamson. This expanded concept of Frontier Coalescent Villages is also supported by similar Frontier Coalescent Villages during the Pickering, Middleport, and pre-Fur Trade substage sites in the Crawford Lake area, sites which were not considered by Birch and Williamson in their development of the Coalescent Village concept.

This study provides a preliminary comparison of Iroquoian development between Duffin Creek and the Burlington and Crawford Lake locality sites located some 80 km to the west.

One of the crucial aspects documented is that Draper site collections remain a vast resource for future research. Unfortunately, not all aspects of the collection could be studied given the limitations of funding and time in the 1980s. In addition, further advances in method and theory in the past 40 years provide new perspectives for the restudy of the collections. Most importantly, from my perspective, is the need to reanalyze the entire collection of rim sherds and to analyze for the first time the castellations, complete the analysis of all faunal remains, particularly the non-mammal remains, and the completion of the study of artifacts recovered from undisturbed house structures in the Main Village and plough-disturbed house structures in the South Field and Structure 42.

Midland, Ontario

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Foreword

by Gidigaa Migizi (Doug Williams)

I have been told the stories about the “ancient ones” as we call them, by the older people who helped raise me. When you translate it from our language, it means “people that lived long ago.” These stories have not been told as part of the archaeological narrative in what is now known as Ontario. The Elders who were part of my upbringing were telling me stories that were told by their forefathers, that were told by their grandparents, and so forth. Our stories are passed down from generation to generation—that’s how we keep our history. It is important to understand this history if you want to understand the antiquity of humans in Ontario. These are stories that have been excluded in the telling of the peoples of the past in Ontario mainstream archaeology, until now. It is about time that the Anishinaabeg are part of this narrative and are being incorporated into the story of Ontario. This is good and wonderful progress, and as a Storyteller and Knowledge Keeper for my people, it tells me that archaeologists are finally listening.

I believe that archaeologists, working within their scientific frameworks, are able to find out certain things. However, they are not able to know the whole story with science alone. For example, archaeologists can’t be entirely sure about who the ancient ones were in terms of their ethnicity/culture. Who were they, really? Most archaeologists believe that village dwellers were Iroquoian, but were they? Were they actually half Anishinaabeg? Or were they all Anishinaabeg? Or were they part Huron-Wendat?

These ancient ones intermarried. I know that our old people say that we lived with each other, we lived beside each other, and that we especially lived with the Huron-Wendat in the winter time so that we could access the food that they stored. In other words, we would have access to their corn and squash because they saved it, and we didn’t. Although the Anishinaabeg did get into the corn culture, we had the corn culture too. And we saved seed after we were introduced to corn. Our stories tell about the saving of seeds. For example, Anishinaabeg had what they called “Georgian Bay seeds” and these were interesting to them because there was a lot of reference to them

in our oral histories as being a nice type of corn to have because it stored well in Ontario. The corn that is largely found on archaeological sites in southern Ontario was mostly traded corn with the Iroquoians and Huron-Wendat, which were strains that came generally from the south.

There's all kinds of activities that the old people talk about that occurred over a long period of time. As I've told in some previous stories, the Michi Saagiig Anishinaabeg have been around a long time, and the Wendat were in Ontario somewhere around A.D. 800. This is not a fixed date. We didn't tell these things by specific dates, we told them by story which included nuances and gestures that can only be understood orally. And that's how we kept knowledge of the ancient peoples. These corn-growing peoples came here a long time ago and I can estimate by the gestures that were displayed during the telling of these stories that they were referring to a specific time frame. An example of what I mean is that a flick of the mouth by the storyteller, when they talk about the distant past, would be 500 years or so. Thus, a flick, a flick, and a flick of the chin and the mouth when speaking about a distant horizon says that was approximately 1500 years ago, give or take a few hundred years. So this indicates to me that somewhere around A.D. 600–800, corn started to really come into Ontario.

These were the stories told by my Elders, that were told by their Elders, and so on—there is no cause for me to doubt them. There is no reason for them to mislead or tell a false history. So it is really interesting if that story correlates to the dates found in the scientific evidence produced by the archaeologists. It really is interesting to me that finally somebody is doing this kind of work. I admire Dr. Finlayson for publishing this volume and for being able to think like this: that he has listened to my work, that he has talked to me, and that he is able to pick up on something that is probably quite foreign to him. That he has not dismissed the Anishinaabeg in his work and that our history is taken into account. This is all I can ask for, so that in the end we may come to a different conclusion about the history of Ontario.

Our stories may vary slightly, but there should not be huge discrepancies in coming to understand the truths of the past. Our stories should be able to match the science and vice versa. It's an exciting approach, to me. You've got to take in the oral story, you've got to take in the nuances of the culture, and you also have to listen to the language. The language is also used by our people to carry on history, to know history, and to speak about history—it's built right in the language and into our stories.

For example, we teach about the glaciation in Ontario by the telling of stories about Nanabush, or as we know him, Nanabozho. It is a story about Nanabozho and Biboon, who is the Spirit of Winter, and they had a fight about who was the strongest. And for a while, Biboon would win and ice would form in Ontario. Nanabozho then elicited the help of Niibin, the Spirit of Summer—a Manitou of summer, which is what we call spirit: Manitou. Everybody should know that. Every Canadian should know that that these are the words we use and that they are not idle meanings, these are living meanings, these are storytelling meanings. These are profound ancient sources of information. And so when the fight was on, and Biboon was winning, glaciation was happening in Ontario. So that is an example of the way the Elders taught us about when glaciation happened. Thus, when the earth heated up again they said, “Well, Niibin was winning.” And again, as I mentioned above, this happened with their lips moving and telling the story with gestures that indicated this happened many thousands of years ago.

This story, to me, matches the science which basically says that at a certain time glaciation happened in Ontario and then glaciation moved out and humans returned. Our story, and the story of science, says humans came into Ontario from somewhere else. Our stories, though, go further and say that we were actually created at the mouth of the St. Lawrence River which we call the “Big River” in our language. So when you consider all, both sides, the story telling and the orality of the culture of the Anishinaabe and the archaeological science, they really do tend to match. Dr. Finlayson’s text is an indication that we are arriving at a more inclusive and a more fulsome understanding of the ancient peoples of Ontario, and I am hopeful this will result in a more robust and comprehensive interpretation of the past.

Something I feel is significant for archaeologists to know, is that my people traded heavily with the Haudenosaunee and with the Wendat. The Iroquois peoples were better at making certain things, and our people knew it. Similarly, the Iroquois peoples knew we were better at making other things. For example, the Haudenosaunee and the Wendat loved our canoes, but they couldn’t make a birch bark canoe even if they tried, as was the joke. But it was the same with our people—we recognized that they were really good pottery makers. So, we would trade numerous birch bark items for large amounts of pottery because we were good at working with birch bark and they were good at working with pottery. This means we would have Iroquois pottery with us, and they would have Anishinaabe birch bark items with them.

Now birch bark really deteriorates quite quickly in terms of the archaeological record, within 200 years or so, while pottery can lay on the ground for thousands of years. So when an archaeologist comes across a pottery find, the assumption is that it is Iroquoian. There is no archaeological evidence of Anishinaabeg in this instance because most of our items are perishable. This kind of thing can easily happen and as a result, the archaeological record is misinterpreted.

My other concern about archaeology, and science in general, is that the archaeologists and the scientists don't know our language, and so how can they know those stories? And how do archaeologists determine which peoples were on the land based on finding pottery? Pottery doesn't talk, right? Therefore, if archaeologists conclude that the pottery means an Iroquoian presence, they, in fact, can be misinterpreting the entire story. Why are "isolated find spots" of pottery generally labelled as Iroquoian? So if archaeologists conclude that is an Iroquoian site when, in fact, it is being used by Anishinaabeg and the pottery was a trade item, then in this instance, the past is being grossly misinterpreted.

I will also point out that there are Anishinaabeg who would make pottery. Don't get me wrong, they would make pottery and they had their own style, but a lot of it was emulated. As I mentioned before, it had been conceded by the Anishinaabeg that the Iroquois made better pottery and thus, our people would also copy their styles, for lack of a better term. The Iroquois also tried to copy our styles. You see, their canoes were made out of mostly elm bark, and their houses were made out of elm bark, while ours were made out of birch bark. The birch bark was by far superior in terms of a covering for houses and for canoes. Elm bark deteriorated much faster, it was hard to work with, and it was leaky. The elm tended not to take to pitch and bear fat that well in terms of sealing, and they only tended to last one season. So Haudenosaunee canoes tended to be a bit bigger and clumsier and it took more men to carry them. They were not easily portageable. And because of that, they desired and traded their pottery for our birch bark canoes. So when archaeologists dig up pottery and look at rocks, there's no evidence of that kind of social interaction, or of that kind of reality. It is important for archaeologists to seek and understand these stories. It is information that archaeologists must learn about our culture and our people, to better understand what was happening in the past.

Michi Saagiig territory was known as a land between peoples, as well as a land between geologic ecosystems. Our homelands, situated between two powerful nations, defined our very identity. The Michi Saagiig were known as the diplomats, the

messengers, and the peace-keepers. The Anishinaabeg to the north, were led primarily by the Odawa who tended to be looked at by the other Anishinaabeg communities as being really good at war and warfare and were also extremely proud and extremely well dressed. They were seen as the enforcers and as the leaders. And then to the south lived the Haudenosaunee who were very warlike for a time and disrupted relationships through internal conflict and their periodic raiding of neighbouring nations. Our stories of the ancient ones tell of bringing peace to the Haudenosaunee. Our people messaged peace to them. It was part of our identity to do so.

The stories of peace were born from the Mississauga Anishinaabeg and taken to others by our holy people. I spoke often with the old people who raised me about a man known in our stories as Chi-Nibiish who was raised in the Lake Simcoe area long ago. There were a lot of Anishinaabeg living there as well as a lot of Wendat. And there was a really big village at the south end of the lake where they were all living together. Our stories tell us that Chi-Nibiish was raised by the Huron-Wendat, but he was really a Michi Saagiig Anishinaabeg kid. For reasons we have yet to understand fully, this arrangement was agreed upon by both parties. Thus, Chi-Nibiish spent a lot of time with the Huron-Wendat, sanctioned by his parents because he was a dreamer and he was dreaming about peace. His parents nurtured his dreams and he told them that he dreamed of peace with the Haudenosaunee, that he wanted to save them. So he went to live with the Huron-Wendat so that they could teach him the Haudenosaunee language in order that he could travel to Haudenosaunee lands and speak to them about peace.

We know that at times our people adopted others from different nations. Our stories speak about the adoption of children, so that our different cultures of peoples could understand one another, could build kin relationships and allyship through the bond of families. So close, at times, were our relationships with other nations of people, that even our stories sometimes tend to mirror one another's. Also remember, that the Michi Saagiig were diplomats, and in order to be diplomats they had to speak the Haudenosaunee language. They had to speak the Huron-Wendat language, the Michi Saagiig dialect, and the Odawa dialect. They had to be proficient at four languages. And to learn these languages, they went to "school" for lack of a better term, and spent considerable time in each of these nations' communities. So there were relationships, alliances, political agreements, and all sorts of interaction between our peoples and many other nations over thousands of years in Ontario. Is this being captured by the current archaeology? By finding pottery?

In this text, Dr. Finlayson has managed to tell a more inclusive story of the past and so it is refreshing in that it offers glimpses of a largely omitted part of the history of Ontario: the Anishinaabeg history.

I will conclude with a story about what are now known as the Seaton Heritage Lands and the Pickering Airport Lands as it is pertinent to this work in particular. These lands are located very close to the Rouge River Valley portage. If you could picture it: portaging from Lake Ontario to Lake Simcoe. The Toronto portage was heavily used by people from the west end of the lake, who lived around the Toronto islands. Anybody from the east side coming this way, who had to go up to Lake Simcoe, used the Rouge River portage. And then eventually they finally joined up there. The Rouge River portage joined up there with the Toronto portage and then they went together on to Lake Simcoe. So we were the Michi Saagiig on the east side who heavily used the Rouge Valley portage. Although my people did trade a lot around Toronto, the significance of the area around the Rouge River in particular, was that it was known as *our route*. At the mouth of the Rouge River there was a Nishnaabeg village known to us as Shingwauk-ong, meaning “the place of the pines.” That is how it was known. And when they were living there, especially in the summer, there was the salmon run, and they hunted all over the area, including all the tributaries that flow into the Rouge River. My people are the Michi Saagiig: the people of the big lake. We were also known as the people of the big river mouths, as we could be found at the mouths of the many rivers that flowed into Lake Ontario.

It is these types of histories, this type of cultural knowledge, that serves to enrich the telling of the story of the past. It is critical for archaeologists to understand that there is a bigger picture that they must strive to include in the archaeological narrative. My people are virtually erased in Ontario archaeology, and given very little mention. However, we were, and still are, living all over these territories you now call southern Ontario. We hold stories of deep antiquity of these lands within our communities and our nations collectively. We had a major impact upon the ancient political landscape in Ontario, including influencing settlement patterns, resource use and allocation, and burial and ceremonial spaces. Archaeologists do not disagree with the fact that Anishinaabeg peoples have been in Ontario for thousands of years, they just need to get better at telling that part of the story—and this book is a good start.

Miigwech for listening.

Gidigaa Migizi, Knowledge Keeper Michi Saagiig Nation

Foreword

by Joyce M. Wright, Ph.D.

Data is both a wonderful and a terrible thing. Too little of it and our understanding fails to advance. Too much of it and our ability to discern meaning can be quickly overwhelmed.

For much of Ontario's archaeological past, researchers have had to work with severely limited datasets. In the early days, there were few professional archaeologists and their excavations frequently only exposed small portions of sites, often focusing disproportionately on artifact-rich features such as middens. Other datasets were even more selective, being comprised entirely of the smoking pipes or lithic tools that happened to strike the fancy of amateur enthusiasts. Reports of this time were highly descriptive, and, admittedly, useful to this day for that reason, but the data upon which they were based permitted little in the way of interpretation.

As the profession matured and the ranks of its members began to grow and understand the need for representative samples from sites, large scale or even complete site (or nearly so) excavations were undertaken involving the full range of settlement pattern features and artifact types. Innovative methods, like flotation, were developed that teased even more data from the archaeological record.

But this presented a problem. While a lot of data presents the tantalizing prospect of great insights, its very mass effectively obscures those insights from discovery. Taxonomy, whether in the form of an artifact classification like Richard (Scotty) MacNeish's pottery types or a cultural taxonomy like Jim Wright's Ontario Iroquois Tradition, can be an effective tool to winnow data that is relevant to a specific research foci from that which is not. By the same token, a taxonomy that works for one research goal probably will not work for another for which entirely different attributes likely pertain. Unfortunately, this latter point has not always been recognized.

Today, as the data available to researchers continues to grow, it is important to acknowledge the ongoing nature of the archaeological enterprise. Nothing is written in stone, so to speak. What was written can and should be reassessed in light of new

evidence and revised accordingly. This includes the interpretations of the data we posit and the taxonomic tools we use.

When Bill Finlayson excavated the Draper site over forty years ago, he undertook an enormous challenge. To this day, it remains one of the largest—if not the largest—archaeological site excavations undertaken in the province of Ontario. From the more than four excavated hectares that were once home to over 1,700 people, were exposed almost fifty multi-family longhouses, multiple rows of defensive palisades and other defensive-works, special purpose structures such as sweat lodges and menstrual houses, over 170,000 analysable artifacts, thousands of flotation samples, and more.

In the foreword to Bill's first book on the *Draper site*, *The 1975 and 1978 Rescue Excavations at the Draper Site: Introduction and Settlement Patterns* (1985), Bruce Trigger noted that "The work done at, and in connection with, the Draper site has established a new standard in Iroquoian research." He would, no doubt, be impressed to learn of the present volume which revisits the data collected then and reassesses it in consideration of new data and archaeological developments that have transpired over the intervening years. In an era that has witnessed an unfortunate shift away from research-oriented archaeology to salvage excavations in advance of development, few present-day researchers have the opportunity to interpret and publish data, let alone re-evaluate it in light of new evidence. The current publication, therefore, constitutes a rare gift to those who value and seek to better understand Ontario's archaeological past.

Similarly, Jim Wright would be delighted to note the discussion and refinement of the cultural taxonomy he called the Ontario Iroquoian Tradition and Lawrence Jackson has since renamed the Ontario Woodland Tradition to reflect Algonquian as well as Iroquoian participation, an involvement Jim acknowledged shortly before his death, in *A History of the Native People of Canada (volume III)*. While his exceptional familiarity with Ontario and, indeed, Canadian archaeology would make his thoughts on the suggested refinements of significant interest, I expect that his greatest pleasure would come from witnessing the occurrence of a dialogue on the matter. If we are to understand the data with which we are presented, we need to work to discover its organizing principles. This is as true for artifacts as for cultures. Arbitrary segmentation will not suffice.

It has been said that there are qualities in wholes that are not apparent in the parts. Nothing could be truer with respect to archaeology. The people of the past, like us, lived in communities but ventured beyond these to acquire food, socialize, trade, fight,

and, frankly, for any number of other reasons. If we are to pay witness to these behaviours, we must examine the archaeological record from a variety of scales. The present volume offers us an opportunity to look beyond the Draper site palisades to other sites in the immediate area, to those of the Duffin Creek drainage and beyond. The added benefit in this is that a considerable amount of information that was heretofore more or less inaccessible in the so-called grey literature of unpublished reports and manuscripts, is made readily available to present and future researchers.

There is much work yet to be done, both with respect to classifying and interpreting the data recovered from the excavation of the Pickering Airport Lands and comprehending how it all fits within the wider landscape of the people of the past of these lands we now call Ontario. The present volume takes a tremendous step forward in this direction and should further serve to inspire others to make similar contributions.

It is my personal hope that some of these efforts will be directed at the wider public. It is not just archaeologists who are interested, or who have a vested interest in the past. For archaeology to continue to be practiced, for our understanding to continue to advance, we need to share our insights with others in ways that they can understand and appreciate.

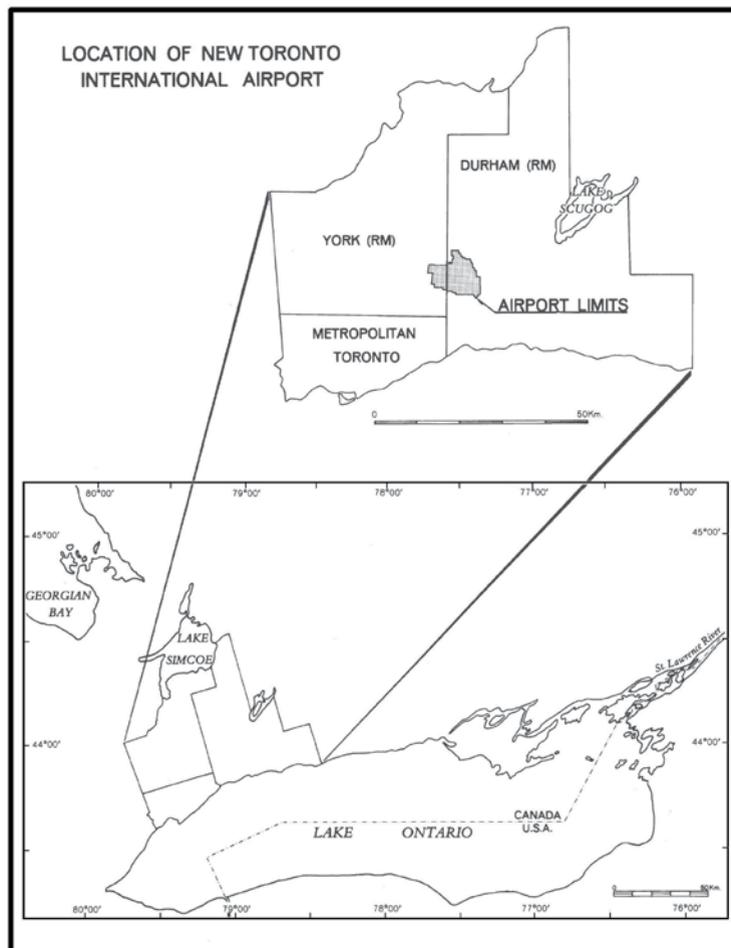
The Draper Site,
an Ontario Woodland Tradition
Frontier Coalescent Village
in Southern Ontario, Canada:
Looking Back, Moving Forward

Chapter 1

Introduction

The Draper site is a large Late Woodland Iroquoian Village located within the proposed boundaries of the New Toronto International Airport (Figure 1.1). The federal government had expropriated 18,500 acres of land for the construction of a second international airport for the City of Toronto and surrounding municipalities. Rescue excavations were undertaken at the Draper site (Figure 1.2) under the co-direction of myself and Peter Ramsden in 1975 and continued under my direction in 1977 and 1978.

Figure 1.1: Location of New Toronto International Airport (Pickering Airport) Lands (from Finlayson 1985, 20)



Earlier excavations at Draper had been conducted by the Ontario Archaeological Society in the 1950s and by Peter Ramsden in the 1960s for his M.A. thesis. There were also earlier salvage excavations in 1972 and 1973 under the auspices of the Ontario Archaeological Society. These were deemed inadequate by the Archaeological Survey of Canada, National Museum of Man, and the National Museums of Canada which coordinated the rescue excavations project with funding from Transport Canada. I agreed to assume the complete excavation of the Draper site which began in 1975 and ended in 1978.

Figure 1.2: Location of the Draper Site Within the Pickering Airport Lands



Excavations were also conducted at the White site, another Late Woodland Iroquoian site, in 1973 by Brian Hayden (Hayden 1979a) and were completed between 1974 and 1976 by Grant Tripp (Tripp 1978). A major archaeological survey of the airport

property was undertaken between 1976 and 1978 which documented 131 sites in addition to Draper (Poulton 1978b, 1985, 32). Included were 13 Late Woodland Iroquoian sites, four of which were subject to test excavations at Best, Pugh, and Webb I (Poulton 1979a, b), and at the Spang site with students from Wendake, Quebec in 1978 and 1979 (Pinarde 1980; Mayer 1980). I taught field schools for Erindale College, University of Toronto at Draper in 1978 (Finlayson 1985, 57) and at Pugh in 1979 (Timmins 1981, 3).

This study will summarize selective aspects of the work on the Draper site by those who undertook the various studies of the different classes/categories of artifacts and other data from the site during the period of active research on the collections at the Museum of Indian Archaeology in London between 1975 and 1985. It will also review additional work on the collections and data by others (Kapches 1990; Williams-Shuker 1997; Forrest 2010; Jamieson 2016).

I will present a revised formulation of the Ontario Woodland Tradition proposed by Lawrence Jackson as an organizational construct for the study of the Late Woodland Occupation of south-central and parts of southwestern Ontario, elaborating on the initial presentation of this construct by Lawrence Jackson (2018). The Ontario Woodland Tradition involves the two major groups of occupants of south-central and southwestern Ontario: the Algonquian peoples who have occupied these areas for millennia and the Ontario Iroquoians whose occupation can be traced back to about A.D. 1000 and whom I believe migrated into south-central Ontario as documented by Anishinabek oral tradition (Migizi 2018). In presenting this construct, I believe that these two populations together occupied parts of southwestern and south-central Ontario but that particularly for south-central Ontario the occupations of the Algonquian peoples have been greatly obscured by the over-emphasis of Ontario archaeologists of the study of Iroquoians with little or no consideration that the sites they were studying might actually be Algonquian or have Algonquian components. For example, I believe it is possible that sites such as the Auda and Eldorado sites (Kapches 1983, 1987) may be Algonquian sites, not Ontario Iroquoian sites, as originally proposed and, as such, their cultural affiliation needs to be subject to serious reassessment. Further consideration of this construct is presented below. One of the implications of the adoption of this construct is that not all Late Woodland sites in south-central and southwestern Ontario can automatically be classified as Iroquoian or Algonquian and that the classification of sites needs to be considered more carefully.

This organizational construct will be used in this study of Duffin Creek drainage utilizing data from the Late Woodland sites discovered and test excavated between 1976 and 1979 (Poulton 1978b; Carter 1981; Timmins 1981; Williamson 1979, 1983) as well as the intensive investigations of sites on the Seaton Lands located immediately south of the Pickering Airport Lands undertaken by Infrastructure Ontario and its predecessors. There are also additional licence reports on lands adjacent to the Seaton and Pickering Airport Lands which have been subject to CRM studies related to a variety of developments including the construction of Highway 407 and other commercial, industrial, and residential developments. Reports of this work have been accessed through the Ministry of Heritage, Sport, Tourism and Culture Industries via its PastPortal which provided many of the reports in a digital format or from Robert von Bitter of the Ministry for reports prepared prior to the implementation of PastPortal.

I have selected the Duffin Creek drainage as the basis for this study since it provides a naturally defined area for the study of Ontario Woodland Tradition peoples, although it is clear that most of the occupation was by the Ontario Iroquoians, one of the two occupants of the area. There are, in fact, hints of occupations by the contemporaneous Algonquian peoples, yet their occupation is still shrouded by the overly emphasized study of the Ontario Iroquoians. Much more research will have to be completed to resolve this imbalance. It is evident that the Duffin Creek drainage was a frontier for the occupation of a central portion of the north shore of Lake Ontario at certain times in the past.

1.1 Rationale for This Study

It has always been my intention to prepare a synthesis of our work at Draper and other sites we investigated on the Pickering Airport Lands between 1975 and 1979. This study was delayed by my departure from the London Museum of Archaeology in 2001. It took a decade and a half for me to establish my archaeological consulting firm, This Land Archeology Inc., to the point where I could take time to embark on research and writing. In retrospect this has been a very positive and productive 15 years as it resulted in an increase in my hands-on knowledge of the Indigenous occupation of south-central and southwestern Ontario, particularly through the investigation of two precontact Algonquian sites—Winter (BbHj-35) and Bradford East (BaGv-74) (ARA 2003; This Land Archaeology Inc. 2016). It also provided me with experience in 19th

century Euro-Canadian archaeology which has significantly broadened my horizons in Ontario archaeology.

In preparing this report I was also fortunate that in the mid-1990s I had the opportunity to complete my research of 76 Iroquoian sites in the Crawford Lake area wherein I personally described, analyzed, and interpreted almost all the 248,778 artifacts from our 25 years of excavations in the area (Finlayson 1998b). The only exceptions were:

- the use of published descriptions of all artifacts, excluding rim sherds which were personally re-studied for the Bennett (Wright and Anderson 1969), Gunby (Rozel 1979), and Pipeline sites (Busby 1979);
- the description of the trade goods by Frances Carson, one of the long-time volunteers at the museum;
- the identification and analyses of the bone, antler, and shell fragments by students in the faunal courses of Dr. Howard Savage along with a few reports by Jim Burns and others; and
- the various other studies by specialists of Crawford Lake sediments and the environment near the lake.

This landmark study provided me with incredible personal insights into the artifact assemblages from these 76 sites which was simply not possible with the Draper artifacts, studies of which were undertaken by a number of individuals with varying amounts of experience and at a time in the very early stage of my career as an Ontario archaeologist. Further, this involved my hands-on, in-depth study of the full range of artifacts with relatively large numbers of artifacts from Ontario Woodland Tradition sites ranging from Pickering to Uren to Middleport to prehistoric and historic Neutral and which represent unique sequences of development of several Iroquoian communities over a period of more than five centuries.

This current volume has benefited from numerous other significant developments in Ontario archaeology since the publication of my 1998 Crawford Lake study:

1. The re-dating of the Iroquoian occupation of the Draper, Spang, and Mantle sites and the demonstration that Mantle was occupied at the same time as Cahiague by Manning et al. (2018) has far-reaching implications for the occupation of Duffin Creek and adjacent parts of south-central Ontario. Since Mantle was occupied at the same time as Cahiague, it can only be concluded that those Ontario Iroquoians who occupied the Duffin Creek drainage were

not Huron-Wendat since the boundaries of the historic Huron-Wendat confederacy were confined to a well-known portion of what is today Simcoe County. This occupation of Duffin Creek is another example of Iroquoian communities which occupied a significant part of south-central Ontario yet cannot be Huron-Wendat. A similar situation occurred in the Burlington and Crawford Lake localities where my study of 16 sequentially occupied villages represented another Iroquoian community whose development generally paralleled that on the Duffin Creek but disappeared after the occupation of the Middleport Van Eden and Crawford Lake sites and therefore cannot be automatically considered Huron-Wendat. As Manning et al. notes:

The revised dates for the Draper, Spang and Mantle sequence already suggest substantial changes in the previous understanding of the pace and timing of indigenous social, economic and political changes in northeastern North America, such as processes of coalescence and conflict, substantially shortening the previously assumed time frame and moving these transformations later into the contact-era in the 16th century. (2018, 6)

These amended dates for Draper, Spang, and Mantle will also require a reconsideration of the revised chronology proposed in my Crawford Lake study in which Middleport was dated A.D. 1330–1504 based on studies of the varves of Crawford Lake (Finlayson 1998b). As James V. Wright has noted, the much-revised dates for Middleport “allow greater latitude for both the numerous sites involved and the extensive cultural changes which took place during this time” (2004, 1312). This, however, is a matter beyond the purview of the current study and will be addressed elsewhere.

2. The growing realization that the Algonquian occupation of south-central Ontario had been effectively ignored in archaeological studies with the almost total focus on the investigation of sites occupied by Iroquoian peoples. The 21st century refocus on an Algonquian presence was addressed in a peripheral manner by Paul Lennox in his study of the Molson site (2000) and further elaborated by Fox and Garrad (2004). There have also been two articles (Kapyrka 2017; Kapyrka and Migizi 2015) which argue the need to consider Anishinabek history and oral traditions and the presence of Anishinabek peoples and their archaeological sites as neighbours and allies of the Ontario Iroquoians throughout south-central Ontario. However, most significant was

the publication by Gidigaa Migizi (Doug Williams) of *Michi Saagiig Nishmaabeg: This Is Our Territory* (2018). This oral history details the migration of Iroquoian-speaking people into Algonquian territory with permission about A.D. 1000 and the ongoing alliances between these two groups. This oral history suggests that the in situ hypothesis for the origins of the Ontario Iroquoians is incorrect. Lawrence Jackson has also contributed to the discussion on this matter by research on the Algonquian occupation of southern Ontario (2018, 2020).

3. The ongoing research by Peter Ramsden in the Upper Trent River Valley and his investigation of that area inhabited by Algonquians, Hurons, and St. Lawrence Iroquoians. Of particular interest is his provocative article on the origins of the Iroquoians (2006).
4. The publication of Gary Warrick's *A Population History of the Huron-Petun, A.D. 500–1650* (2008), a revision of his Ph.D. thesis (1990). One of the important aspects of Warrick's research is its emphasis on the importance of culture history. Warrick correctly notes:

Only culture history, with its focus on microregions, precise chronologies, and materialistic approach, can deal with the real complexity of population change in archaeological contexts. Thus, only cultural historical archaeology can compile a set of specific case studies for testing general theories and models of population change. (2008, 38)

Warrick also presents a “hypothetical sequence of village additions to the Draper Site” (ibid., 136, 137; emphasis mine). As will be seen later in this study, Warrick (2008) and Birch and Williamson (2015), include what are interpreted herein as seasonally occupied hamlets (e.g., Robin Hood (AlGt-96), White (AlGt-32), and Carruthers (AlGt-97)) as villages needed to provide the numbers of people required to populate the Draper site even though the report/publication on these sites (Poulton 1978b; Williamson 1983) interpret these as hamlets. Warrick also includes two villages, Dent Brown (AlGt-68) and Ken Reesor 2 (AlGt-14) which are located beyond the Duffin Creek drainage (2008, 136, 137) as the source of people who joined Draper.

Warrick's study provides yet another early reference to coalescence to a number of sites in south-central Ontario including Draper with his statement “the sudden appearance of very large villages in the mid-fifteenth century

south-central Ontario probably resulted from the coalescence of several smaller neighboring settlements probably for defense” (ibid., 186).

Regardless of some issues, Warrick’s study remains an important contribution to our understanding of the Huron-Petun occupation of south-central Ontario.

5. The development and elaboration of the concept of Coalescent Villages by Jennifer Birch and her co-authors (e.g., Birch 2010; Birch and Williamson 2015) has provided an important step forward in understanding the Iroquoian occupation of the Draper-Spang-Mantle sequence of sites. Yet Birch’s studies have left unanswered, certain questions about Coalescent Villages such as how the amalgamating villages were integrated into a functioning whole. Also, her incomplete research resulted in not tracing the origins of Coalescent Villages to the Pickering substage of the Ontario Woodland Tradition as shown by the presence of the very large coalescent Kraus and Centre Track Pickering sites, the Acheson Middleport site, and the historic Neutral Irving-Johnston site in the Crawford Lake area (Finlayson 1998b).
6. The availability of new data on other Iroquoian sites and a possible Algonquian site on Duffin Creek drainage, particularly through the efforts of Infrastructure Ontario, on the Seaton Lands immediately south of the Pickering Airport Lands, and of other CRM assessments of adjacent lands being developed, notably those associated with the construction of Highway 407 and its ancillary roads.
7. The new insights provided by James V. Wright in his well-researched, data-rich, *A History of the Native People of Canada, Volume III, Part 1, (A.D. 500 to European Contact)* (2004) not only on the Ontario Iroquois culture but also on St. Lawrence Iroquois culture of southeastern Ontario and beyond and the Glen Meyer/Western Basin culture of southwestern Ontario.
8. The innovative approaches to the investigation of Iroquoian ceramics and sites by Joyce M. Wright in three substantive studies (1999, 2006, 2009):
 In *Numbers: A Message from the Past* (1999) Wright makes a number of significant contributions. First, her investigations suggest that for the Nodwell site a sample of 50+/-5 vessels are needed as an analyzable sample for one longhouse to be representative of the entire village. Second, she explores the symbolic significance of pottery decoration which involved horizontal lines and her conclusions include the preference for the use of motifs with three to

five horizontal lines and that the use of horizontal lines as a decorative motif derives from Pickering, not Glen Meyer.

In *Ceramic Vessels of the Wendat Confederacy* (2006) Joyce M. Wright undertakes the study of ceramic collections from 21 sites for which typological data were available to examine the presence of non-Wendat ceramic types on the sites studied. This identified homogeneity in decoration of Wendat ceramics in the 1400s and 1500s which was interpreted as evidence of mobility among the various Wendat villages at that time, something lacking in sites occupied during the 1600s.

Joyce M. Wright's study of the Maynard-McKeown site (2009) with her development of the paradigm of "The Gamble of Life" and the concept of "Sustaining the Kettle" stresses that "the analysis of the settlement and material culture data resulting from the excavation of the Maynard-McKeown sites holds an unmatched potential to contribute significantly to our understanding of the life ways of the St. Lawrence Iroquoians." (ibid., 53).

Joyce M. Wright examines the McKeown-Maynard settlement pattern data for evidence of clan segments using ceramic analysis with its carefully selected attributes designed to explore this problem but failed to produce any evidence for these. Her studies did identify two different kinds of special purpose structures—women's houses and sweat lodges—previously unknown on St. Lawrence Iroquoian villages.

In examining features found at the site, Joyce M. Wright identifies suggested examples of male versus female ritual features. The former represented by paired humeri of deer with holes in the proximal ends found in a feature outside the longhouses and the latter by nested ceramic pots found within the longhouses. Of importance is her discussion of the relatively large number of other ritual features including the burial of a bear, a pit containing five woodchucks, and a double snake burial. While such features appear diagnostic of St. Lawrence Iroquoian sites, she documents the occurrence of some that have been found on sites classified as Ontario Iroquois Tradition sites.

Joyce M. Wright's studies provide significant new insights into Ontario Iroquoian lifeways and raises the need to explore such matters at sites such as Draper.

9. I discovered that Bruce Jamieson had retired from his job in the federal civil service and had, in a rare demonstration of commitment to archaeological research, completed his Ph.D. dissertation of the bone, antler, tooth, and shell artifacts from five Late Woodland sites including Draper (Jamieson 2016).
10. The huge artifact collection from Draper and other Woodland sites from the Pickering Airport Lands had been returned to the Canadian Museum of History in Hull, Quebec after my departure from the London Museum of Archaeology. The collection has been wonderfully curated by the Canadian Museum of History staff. All diagnostics had been laid out in trays in storage cabinets and therefore fully accessible for examination and study. In addition, all supporting documentation for the collections were transferred from the Museum in London to the Canadian Museum of History, thus making these documents more readily available to me for study.
11. In the course of growing my company, This Land Archaeology Inc., I became proficient in the use of Arc-GIS which provided the capability to produce a variety of new graphics for this study.

These factors contributed in a very significant way to the present study which would have been much different if I had written it 20 years ago.

1.2 A Study in Settlement Archaeology

In this study, I build upon my earlier analysis of settlement patterns in the Crawford Lake area of southern Ontario (Finlayson 1998b). For the latter I noted that:

The theoretical framework for this study follows the precepts of settlement archaeology, expanded by the judicious addition of selected approaches from processual and post processual archaeology. These include a consideration of cultural and natural processes, C-and N-transforms defined by Michael B. Schiffer as affecting the archaeological record (1972, 1987) and the observations by Ian Hodder, for his ethno-archaeological field work in Africa, that material culture can either coincide with and help define cultural boundaries or can obscure such boundaries, depending on the nature and extent of interaction between neighbouring groups. (Hodder 1982, 1991) (Finlayson 1998b:38)

In my previous study, I considered the contributions of Willey in Peru (1953), Willey et al. in Mesoamerica (1965, 1975), Struever in the Lower Illinois Valley (1965, 1968) and James A. Tuck (1971) and James W. Bradley (1979, 2005) in New York State as studies influencing my research.

Twenty years after the publication of my four-volume study of 76 Iroquoian sites in the Crawford Lake area, I remain convinced that the most significant advances in the study of the Ontario Woodland Tradition must focus on the in-depth research of the occupation of restricted areas—one or more adjacent drainage systems—where there is reasonably good evidence of an occupation of the area by one or more communities of Iroquoian peoples and their Algonquian neighbours/allies over many centuries. Such research-based studies must also include evidence collected by avocational archaeologists and culture resource managers. It is this belief that has focused my archaeological investigations on both the Crawford Lake area and Duffin Creek drainage, the only two currently known areas where there is a demonstrated continuity of Iroquoian occupation over four or more centuries. What is perhaps most surprising is that both the Pickering to Uren to Middleport substage occupation of the Burlington and Crawford Lake localities and the Pickering to Uren to Middleport to Black Creek to Realignment substage occupation of the Duffin Creek drainage cannot be traced to the historic occupation of Huronia and therefore cannot be called ancestral Huron-Wendat.

I also noted Bruce Trigger's observations that in studies in settlement archeology "three basic levels of analysis can be defined: the individual structure, the settlement and settlement distributions; and each level may be analyzed independently" (1967, 151; quoted in Finlayson 1998b, 39).

Of most importance, I stated that "Explicit in both Willey's work in Peru and Mesoamerica and in other studies of settlement patterns is the strong focus on culture history" (Finlayson 1998b, 39). I also emphasized Trigger's comment that "some applications of settlement archeology with its societal interests, is as much as anything an excuse being used by some archaeologists for side-stepping the fundamental job of defining cultures and working out culture chronologies" (Trigger 1967, 149; quoted in Finlayson 1998b, 39). It is indeed unfortunate that these observations continue to be ignored by certain culture resource managers working in southern Ontario. It will become apparent in this study that some current works have abandoned culture history as traditionally manifested in the Ontario Iroquois Tradition. Further, they ignore significant advances in defining different settlement types present within the

Ontario Woodland Tradition occupations of southern Ontario. These works instead, favour defining Ontario Woodland Tradition occupations of individual watersheds based on the unexplained pigeon-holing of sites into 50-year chronological time periods. This represents a significant regression in archaeological method and in our understanding of these past occupations of south-central Ontario and beyond.

It is vital that there be a continued spotlight on culture history. It is true that Ontario Woodland Tradition studies in Ontario and beyond over the past 50-plus years have focused on the Iroquoian occupations. This is a situation which needs to be corrected but does not require the abandonment of the Ontario Iroquois Tradition and culture history as organizational constructs. What is necessary is to refocus on identifying the Algonquian occupations. It is not that they don't exist, it is that we have failed to seek them out and give them their proper place in the Indigenous occupation of those areas where the emphasis has been on the Iroquoian occupations. What are the settlement patterns, the ceramic attributes, and other artifact categories that might help us identify these Algonquian occupations? My own experience in describing and analyzing the artifact assemblage from what I believe to be an Algonquian occupation of the Bradford East site (BaGv-74) (This Land Archaeology 2016) is that I perceived some differences in the rim sherds which I thought might represent Algonquian pots versus Iroquoian pots. However, these were difficult to qualify and I now think that studies of the paste and temper inclusions might further assist such identifications. I also believe that there were both Iroquoians and Algonquian peoples living at this site and that this was probably a result of the exchange of women as the final stage of alliance formation and maintenance among these two cultural groups. One other problem at this site was the extremely small number of other diagnostics which might have helped further clarify Bradford East as an Algonquian site as opposed to an Iroquoian site. Finally, my research into contemporaneous Middleport substage occupations by a number of communities in the Crawford Lake area revealed significant changes in the preserved material culture which assisted in defining different communities. One of the issues resulting from this study was the question about how quickly these changes in preserved material culture occur and whether there are sufficient material culture indicators to trace the origins of these different communities or where their successors went. It is clear to me that we face similar problems in separating Iroquoian occupation and Algonquian occupation on the same sites or the same drainage areas. I believe the Algonquian sites are there, it is just that we have not developed the rigorous means to isolate them. If we look harder, we might be surprised at what we find.

My previous major study of Draper site settlement patterns focused on the detailed description and analysis of the data on longhouses, special structures, and palisades in the three separate components of the Draper site—the Main Village, the South Field, and Structure 42 with minimal consideration of the studies of artifacts and other data from the site (Finlayson 1985). However, at the same time there were considerable studies of most of the core classes and categories of artifacts including the rim sherds from 1975 excavations (Pearce 1978a), the miscellaneous ceramic objects (Pearce 1978b, 1985b), juvenile vessels (Pearce 1978c), smoking pipes (Von Gernet 1982a, b, 1985), chipped stone (Poulton 1985), ground and rough stone (Pearce 1985a), bone artifacts (McCullough 1978a, b) and (Jamieson 2016), and samples of floral and faunal remains (Fecteau 1978a, b; T. Burns 1979) each of which provided significant insights into the occupation of the site. While most of these studies were published, they were, unfortunately, not widely circulated or accessible and more importantly utilized only selectively by some. Thus, one purpose of this study is to review previous research and summarize the most relevant parts. This includes detailed analyses of the distribution of artifacts from two completely undisturbed longhouses excavated in 1 x 1 m squares (A. Smith 1990). For the current study, I have also expanded the settlement pattern study to include the vast amount of new data provided by CRM studies of the Pickering Airport and Seaton Lands since the 1970s and adjacent lands being developed for a variety of purposes.

This study will also provide a review of work by Jennifer Birch and Ron Williamson on the Mantle site and the Draper-Spang-Mantle site sequence of Coalescent Villages (e.g., Birch 2010a). Mantle is another large Iroquoian site excavated by Archaeological Services Inc. and reported on by ASI (2012a) by Jennifer Birch and Ronald Williamson (2015a) in addition to a large number of published papers and conference presentations by these authors, either singly or as co-authors. My discussion will focus on a review and discussion of the Draper-Spang-Mantle site sequence as Coalescent Villages on Duffin Creek from this perspective: Draper being the original Coalescent Village and Spang and Mantle being aggregated villages some years after the original coalescence at Draper. As is supported herein, the concept of Coalescent Villages is an important one in our understanding of Ontario Woodland Tradition villages in southern Ontario. In this study, the concept is refined to specifically define Frontier Coalescent Villages including Draper, Spang, and Mantle. This includes early examples from my work in the Crawford Lake area such as the Early Pickering Kraus and Centre Track sites, the Middleport Acheson site, and the historic Neutral Irving-Johnston site (Finlayson 1998b) not considered by Birch and Williamson. Thus, Frontier Coalescent

Villages are one diagnostic of the Iroquoian occupation of southern Ontario after about A.D. 1000. The implications for Coalescent Villages in the study of the Algonquian occupation of adjacent parts of south-central Ontario remains unknown with the exception of the presence of small longhouses in villages such as Mantle and Draper which may represent Algonquian peoples in these sites, something which is currently only recognized by these house structures. More detailed studies of the material culture of these sites is necessary to search for pottery vessels and other artifacts representing an occupation by these people. This is a matter which would involve a massive commitment of time and is again beyond the scope of this study.

1.3 The Ontario Woodland Tradition

In preparing this study, I realized, like many others, the need to revise The Ontario Iroquois Tradition presented by James V. Wright (1966). This seminal study has provided a vital organizing construct for our understanding of the Ontario Woodland Tradition occupation of south-central and southwestern Ontario by presumably Iroquoian-speaking people. There have been a variety of studies which have elaborated on this construct and provided further insights into this occupation, especially by the Huron-Wendat. Of most importance was Peter Ramsden's synthesis of "Huron" culture history (1990) which defined the Black Creek-Lalonde period (circa A.D. 1400–1500), the Realignment period (circa A.D. 1500–1600) and the French period (circa A.D. 1600–1650) (ibid., 381–4). Also essential are Rick Sutton's work on the "colonization" of Simcoe County (Sutton 1992, 1999) and the work of Ramsden (e.g., 2006) and his students in Upper and Middle Trent Valley (e.g., Damkjar 1989; C. Ramsden 1989; Sutton 1989). Lennox and Fitzgerald's (1990) synthesis of the Neutral occupation of southwestern Ontario also added new insights into the Ontario Iroquois as did the syntheses of the Early Ontario and Middle Ontario Iroquoians by Williamson (1990) and Dodd et al. (1990) respectively. My own study of the Ontario Woodland Tradition occupation of the Crawford Lake area involved 16 sequentially occupied Pickering, Uren, and Middleport sites in the Burlington and Crawford Lake localities in the Crawford Lake area followed by occupations of other Middleport communities which migrated into the area and evolved into the prehistoric and, in one case, historic Neutral represented the most detailed study of Iroquoian communities over a period of more than 500 years (Finlayson 1998b). James V. Wright's *A History of the Native People of Canada, Volume III, Part 1 (A.D. 500 to European Contact)* (2004) presented his final thoughts on this matter in which he included a discussion of Glen Meyer in

a chapter entitled Glen Meyer/Western Basin, reinforcing the probable Algonquian ancestry of Glen Meyer peoples.

The need to seriously consider the identity of these Algonquian groups living on lands which have traditionally been considered as Iroquoian was raised by Paul Lennox (2000). In his publication on the Molson site, he broached this matter by entitling his publication *The Molson Site: An Early Seventeenth Century First Nations Settlement, Simcoe County, Ontario*, thereby refusing to infer the site was a Huron-Wendat village. This matter was further investigated by Fox and Garrad (2004) and has been an increasing concern for a number of us. My own excavations at the Bradford East site (BaGv-74) have provided the first good evidence for a large Algonquian campsite in south-central Ontario with an intermittent occupation stretching back to the Paleo Indian period (This Land Archaeology Inc. 2016). At this site, the majority of the occupation was contemporary with the Middleport occupation of adjacent areas by Ontario Iroquoians. The similarity of the ceramics provides further support for the original subdivisions of the Ontario Iroquois Tradition (Pickering, Uren, Middleport) and their application to a preliminary understanding of the contemporaneous occupation of large parts of south-central Ontario by Algonquians.

Julie Kapyrka has also made important contributions. Of note is her statement that

Archaeologists would do well to acknowledge and apply Indigenous oral histories and teaching to the extrapolation of the past in this province. Only then may we arrive at a deeper more enriched understanding of the original relationships between First Nations People of Ontario (Kapyrka 2017, 11).

One of the most important developments in the Ontario Woodland Tradition archaeology in south-central Ontario over the past 20 years has been the publication of Michi Saagiig (Mississauga Anishinaabeg) oral traditions by Gidigaa Migizi (Doug Williams).

This publication notes:

Our territory of the Michi Saagiig Nishnaabeg is the north shore of Lake Ontario stretching from where the St. Lawrence River at the eastern end of Lake Ontario and the territory stretches west to approximately Niagara Falls... The Michi Saagiig Nishnaabeg lived here and they were traditionally the people that fished the Atlantic Salmon that came up the St. Lawrence River and spawned in the great rivers that flowed into Lake Ontario... We enjoyed this good life, being sustained by the salmon (Migizi 2018, 29).

Migizi also notes that:

The Aayadowaad (Huron) also lived amongst us with our permission. They moved into our area around 1000 A.D...They had permission to come to our traditional territory by the Michi Saagiig Nishnabeg and the Odawa Nishnabeg. ...We were the shoreline people and they were the agricultural, field, gardening people. We lived quite nicely like that for some time. We were symbiotic. We traded with Aayadowaad, especially in the winter. We traded fish and animals. They had crops—corn, beans squash and vegetables, lived in villages and stored food. It is said later that the Aayadowaad asked to move further north to Lake Simcoe. The Odawa along with the Michi Saagiig Nishmaabeg said yes (ibid., 29, 30).

They had no sovereign rights...the Aayadowaad were very friendly to us. We intermarried at times, but mainly lived gifting each other with food. They would give us corn and squash and we would give them deer, fish, ducks, geese and things of that nature. We got along for years and years before the Europeans came and disrupted this part of Ontario (ibid., 37).

Over the past 50-plus years Ontario archaeologists have focused their attention almost exclusively on the investigation of Huron-Petun, Neutral, and St. Lawrence Iroquoian sites. This is partly a result of the fact that these are relatively large sites, easy to find, and provide information about Ontario Iroquoian life. It requires little effort to study their evolution since the village sites were often time-capsules each occupied for about 10 to 50 years. This is especially true of CRM studies which deal with lands that are to be developed for a variety of purposes, lands which have often been cultivated for years, thus making discovery and excavation of them pretty straightforward.

In contrast, the Anishinabek sites are, as Williams has noted, located at the mouths of the rivers that flow into Lake Ontario. These lands were often settled early by Europeans in the 18th and 19th centuries but have been disturbed or destroyed by such developments. Further, the Algonquian sites are more complex since they are often stratified and therefore more complex to investigate. The net result is that just a few of these sites have been investigated.

Recently, Lawrence Jackson has proposed that the Ontario Iroquois Tradition be replaced by an expanded construct which he calls the Ontario Woodland Tradition (2018, 12). A recent version of his proposal is posted as a manuscript entitled

Anishinabek Presence Across the Landscape of Southern Ontario: The Northern Return, Oral Tradition and Three Centuries of Treaties on academia.edu.

Jackson notes:

*Some archaeological interpretations suggest Huron dominance through south-central Ontario going back hundreds or even a thousand years. Yet the Huron Confederacy was a very short-lived political entity and the formative role of multiple alliances with **resident** Algonkian peoples has been largely disregarded with the exception of Peter Ramsden's Balsam Lake work. Archaeological conjectures of ethnic origin seem to regard Algonquin peoples as barely present rather than populating and traversing the entire landscape. Careful reading of historic French records in the Jesuit Mission period and various archaeological reports on site investigations suggest there is a different story before and leading into the 1600s, of Algonquin and Iroquoian presence in unrecognized configurations across the southern Ontario Landscape (ibid., 11).*

Jackson goes on to argue:

Establishing new analytical structure and terminology will be a difficult task for Ontario archaeologists after decades of direct culture historical extrapolation. Our Iroquoian ceramic typology addresses only one of the two major language groups present in southern Ontario, which has introduced significant bias. The Ontario Iroquois Tradition might more accurately be redefined as the Ontario Woodland Tradition recognizing co-existing Algonquin and Iroquoian branches of cultural development in southern Ontario. Iroquois pottery typology and attribute analysis might better be redefined within a larger Woodland period scheme, recognizing distinct and merging Algonkian and Iroquoian cultures and artifact types (ibid., 12).

I agree with Jackson and therefore for this study I adopt the concept of the Ontario Woodland Tradition as a construct to organize and understand the culture history of south-central and parts of southwestern Ontario and adjacent areas.

In adopting the Ontario Woodland Tradition construct, I recognize both the Ontario Iroquoians and Algonquians within this framework. It is understood that these two cultural groups have distinctive ways of life, the former based on settled village life with a range of settlement types and substance based on agriculture supplemented by

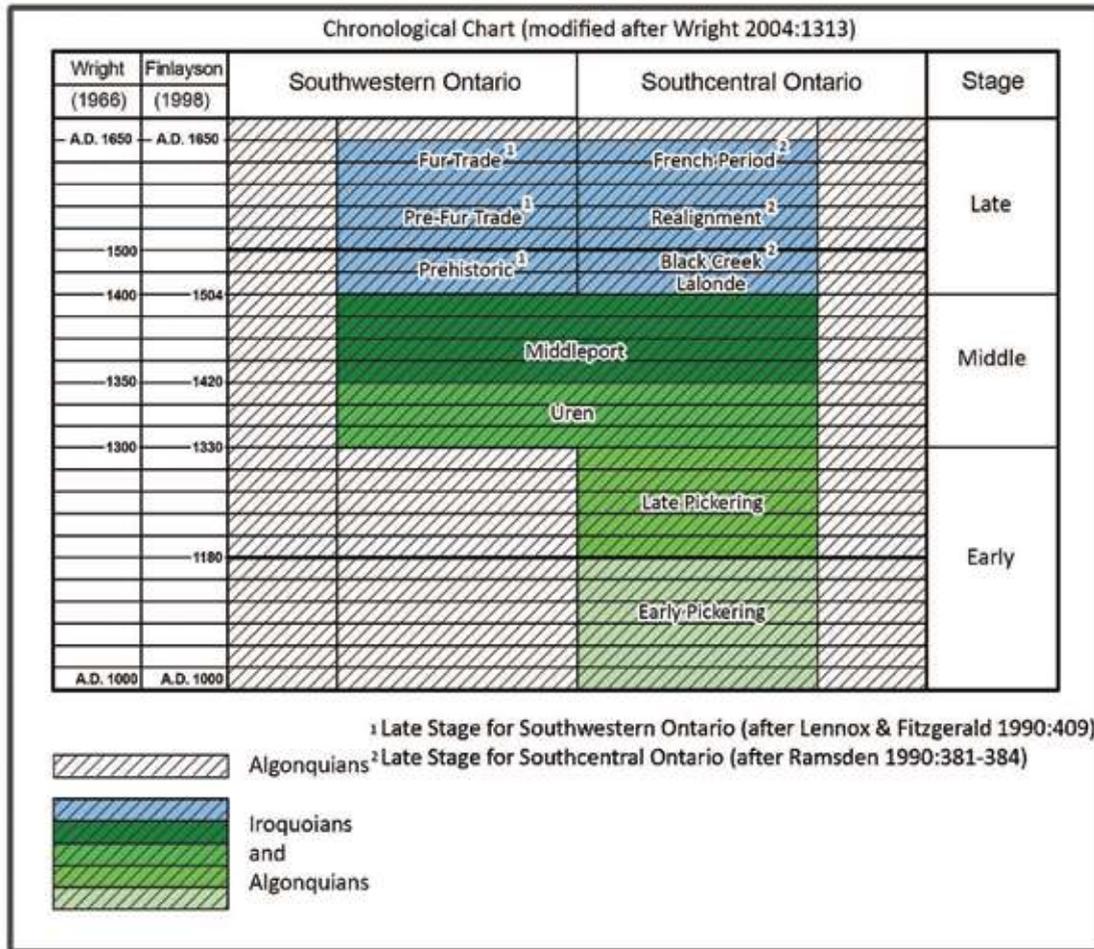
hunting, gathering, and fishing. The Algonquians on the other hand pursued a less sedentary way of life involving seasonally occupied campsites and subsistence primarily on hunting, gathering, and fishing. Yet these two culturally different groups shared a symbiotic relationship based on alliances involving feasting, trade, and exchange of women as marriage partners. This sharing is documented extensively in the ethnohistorical literature such as the wintering of Algonquian groups with the historic “Huron.” It is also reflected in the archaeological record by the similarities in material culture over vast distances in southern Ontario. What is unknown is the extent to which at least some Algonquian groups may have adopted agriculture and other settlement aspects of Iroquoian life to the point that the two became indistinguishable archaeologically (cf. Jackson 2020).

In presenting the Ontario Woodland Tradition, I propose the continued use of the stages and substages proposed by James V. Wright in his original formulation and modified in his 2004 publication as well as some modifications made by others. This includes the Pickering substage for the Early Stage and the Uren and Middleport substages for the Middle Stage. For the Late Stage I propose the use of Black Creek-Lalonde, Realignment, and French substages defined by Ramsden (1990, 381–384) for those previously defined by James V. Wright for Southern and Northern Division Huron-Petun. Similarly, I will use the Prehistoric, Pre-Fur Trade, and Fur Trade to replace more traditional Prehistoric-Protohistoric-Historic Neutral (cf. Lennox and Fitzgerald 1990, 409). Following James V. Wright (2004, 1425ff) Glen Meyer would be considered as part of the Algonquian portion of the tradition with the recognition that these Algonquians were horticulturalists.

A chart detailing the stages, substages, and two alternative chronologies is presented as Figure 1.3. A key aspect of the Ontario Woodland Tradition is the recognition that Algonquian groups occupied not only the areas to the east and west of the Ontario Iroquoians, but also co-occupied the areas inhabited by them. Such occupations might have been the seasonal settlements near Iroquoian villages as documented historically for the Huron-Wendat but may also represent seasonal settlements in areas such as traditional fishing and hunting grounds. The current version of the Ontario Woodland Tradition incorporates the occupations of virtually all of southern Ontario by the Michi Saaglig and the Chippewa Nishnaabe (as portrayed in Map 1, Migizi 2018, 119). Also included in the tradition presented in Chart 1, would be the Petun and their neighbours/allies including the Odawa. The Petun are seen as an outgrowth of the Huron-Wendat as originally proposed by James V. Wright (1966, 2004). The Odawa,

another group of Algonquian speakers are included based on the synthesis by Fox (1990) as a cultural group with close ties to the Petun.

Figure 1.3: Outline of the Ontario Woodland Tradition Construct



In this chart, I have followed James V. Wright (2004, 1313) in presenting both the traditional dating of the Ontario Woodland Tradition, as well as the proposed revisions from my investigations of the Iroquoian occupation in the Crawford Lake area based on interpretations of corn and other pollens in the varved sediments of Crawford Lake. While this revised chronology has been ignored by most, the recent re-dating of the Mantle site to be contemporaneous with Cahiaque by Manning et al. (2018) indicates that the chronology suggested in 1998 will need to be seriously reconsidered.

In proposing the continued use of these traditional stages and substages, I believe that this will make it easier to adapt to the new reality that the Southern Ontario Algonquians played an important role in the occupation of southern Ontario during the Ontario Woodland Tradition. For example, those of us who have described and analyzed samples of artifacts from Pickering or Uren or Middleport sites are familiar with what these substages mean and what their diagnostic characteristics are. What is important is not that we abandon the existing terminology of these stages and substages, but that we begin to search for the differences in artifact assemblages which will segregate Algonquian sites from Iroquoian sites and to attempt to define the presence of Algonquians on Iroquoian sites or Iroquoians on Algonquian sites. The reality is that there needs to be a major restudying of extant collections to explore these matters. This will be a daunting task, one which will take years to complete.

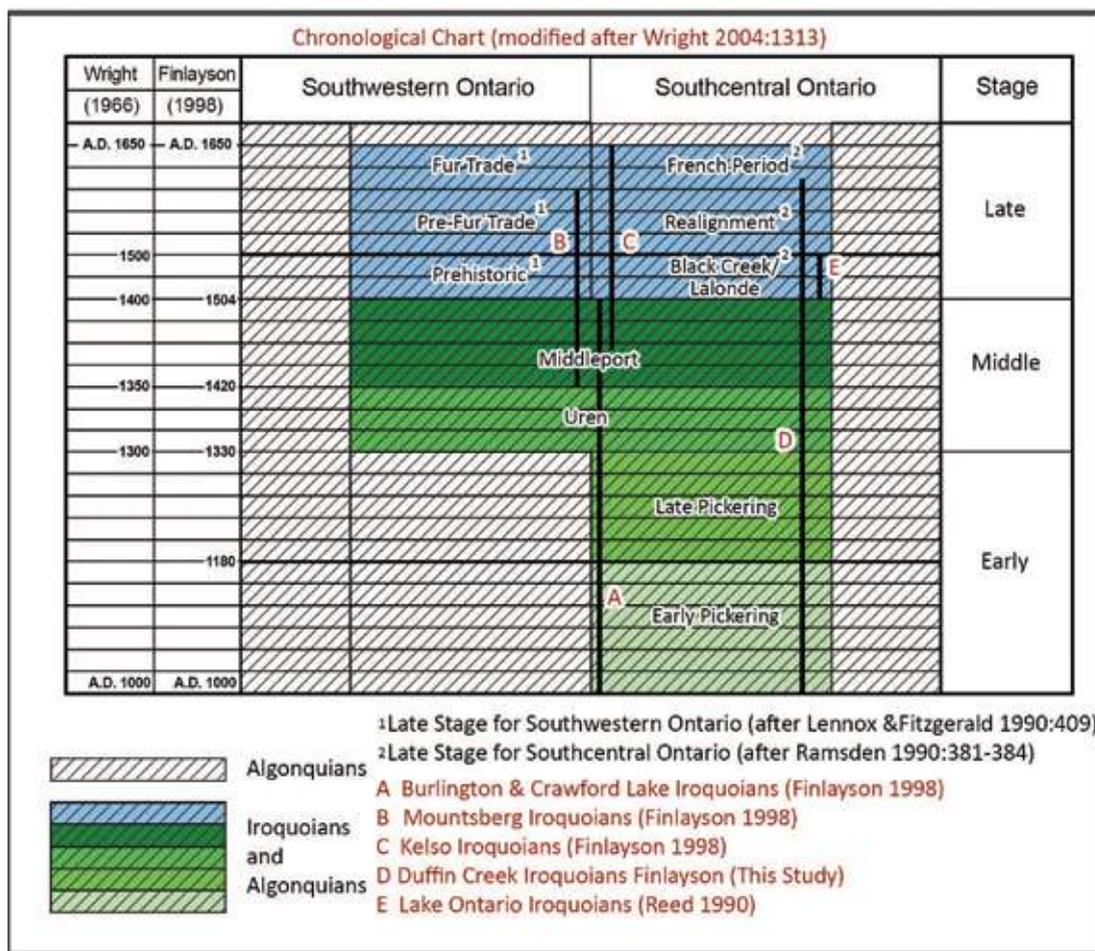
Using a variation of this chart, it is also possible to portray some of the Iroquoian communities who occupied different parts of southern Ontario. For purposes of this study, I have used data on the Iroquoian communities which I defined for the Crawford Lake area (Finlayson 1998b) as well as the data presented herein which presents, in a preliminary fashion, the occupation by Duffin Creek Iroquoians, possibly with an Algonquian occupation of the Duffin Creek site and perhaps the Garland Ossuary. I also include the Lake Ontario Iroquoian communities defined by Reed in her study of the MacLeod Site (1990) which also used some of the data from Ramsden's Ph.D. dissertation (1977). Other communities could be added to this chart for other parts of the north shore of Lake Ontario, Simcoe County, and the Middle and Upper Trent.

The following examples illustrate the application of this construct to the classification of sites (Figure 1.4). The Kraus site in the Crawford Lake area would be labelled as a Late Pickering substage, Crawford Lake Iroquoian village. The White site would be called a Realignment substage Duffin Creek special purpose site. Cahiaque would be labelled as a French period substage Iroquoian village while the Bradford East site would be called a Middleport substage, Algonquian special purpose site.

There are those who propose rejecting the Ontario Iroquois Tradition completely in favour of defining sequences of Iroquoian sites on the different drainages of the north shore of Lake Ontario using 50-year arbitrary time periods (e.g., Williamson and Robertson 1994; Birch and Williamson 2015a; Williamson 2014a). Such studies also do not adequately consider the advances of settlement archaeology in the 1970s, 1980s, and 1990s which began to define different settlement types (e.g., villages, satellite villages, hamlets) (Finlayson 1985; Trigger 1985; Lennox 1984a, b, 2000). They also

tend to ignore well-documented cases in which groups such as the Neutral joined specific villages east of their homeland. The Neutral community which joined the resident Iroquoian occupants of the Humber River drainage is well recorded for sites such as Seed-Barker (James V. Wright 2004, 1352) and the Neutral house at Draper (Finlayson 1985, 387) and this has been largely overlooked in recent publications except by James V. Wright (2004).

Figure 1.4: Outline of the Ontario Woodland Tradition Construct with Some Iroquoian Communities on the North Shore of Lake Ontario



What is important is that this is the first in-depth study of the Ontario Woodland Tradition occupation of one drainage system on the north shore of Lake Ontario that focuses on culture history and settlement types as the first steps in understanding the

Indigenous occupation of the area by two different cultural groups. It is also the first such study which uses Williams Treaty oral history to seriously question the origin, nature, and extent of the Iroquoian occupation of the Duffin Creek drainage and adjacent parts of the north shore of Lake Ontario. Only when we more fully understand the diagnostics of the Algonquian sites and use these to explore the Algonquian occupation of the area compared to those of the contemporaneous Iroquoian occupations can we begin to explore their interactions. This will ultimately lead to a fuller understanding of the relationship between these two populations from about A.D. 1000 to approximately A.D. 1615 and their symbiotic nature.

1.4 The Organization of this Study

This study is divided into four parts representing its four goals:

Chapter 2 will review the publications and many of the unpublished manuscripts, reports, theses, and dissertations prepared on the 1975, 1977, and 1978 excavations at Draper and the subsequent description and analyses of the artifacts and other data. This is necessary since a variety of these studies were not widely disseminated and have not been used in contributions to our expanding knowledge of the history of occupation of by Indigenous peoples since about A.D. 1000. In part, this seems to be due to inadequate southern Ontario research by some and the intentional lack of use of extant knowledge by others. Further, some of the studies used only portions of the artifacts recovered. In some instances, detailed studies of Draper site artifacts were completed prior to the availability of artifacts and data from the 1978 excavations. Also, at least one of the studies of the entire collection of rim sherds exists only in a handwritten document with significant problems (which I elaborate on further, below) but is now being cited by certain individuals without acknowledging any of these aforementioned matters. Thus, Chapter 2 provides an up-to-date summary of the state of research on Draper to give the reader a better understanding of what was done, by whom, and when. In order to optimize Chapter 2, additional discussion of some of its subject matter is presented as Appendices A and B.

Chapter 3 provides new perspectives about the Draper site based on the review of data presented in Chapter 2. In part, these new perspectives are a result of the evolving nature of method and theory as applied to Ontario Woodland Tradition archaeology in southern Ontario as well as the results of archaeological studies of Iroquoians in Ontario, Quebec, New York State, and beyond. In addition, I was able to complete the

first stage of my research into the Iroquoian occupation of the Crawford Lake area (Finlayson 1998b). This included the delineation of 16 Iroquoian villages which were sequentially occupied from Pickering to Uren to Middleport and the subsequent development of contemporaneous Middleport villages which migrated into the area and eventually evolved into the prehistoric and historic Neutral populations. Finally, my reconsideration of my Ph.D. research on Saugeen sites in southwestern Ontario (Finlayson 2017) revealed to me that new perspectives can be acquired by revisiting older research especially given the experience gained from more than 50 years of archaeological studies in Ontario.

Chapter 4 will summarize archaeological investigations of 47 other Iroquoian sites on the Duffin Creek watershed. Early work on Duffin Creek includes work by Walter Kenyon at the Miller site (1968), Ridley's (1958), and C.S. Reid's (1975) work at the Boys site. The work conducted on the Seaton Lands expropriated by the provincial government for a proposed new city which is being created south of the Pickering Airport Lands involved very significant surveys and selective test excavations of some of the sites found and also resulted in assessments of adjacent lands including Highway 407 prior to its construction. This chapter will also selectively review the almost total excavation of the Mantle site by Archaeological Services Inc. located about 5.7 km northwest of Draper. Except for publications on the Mantle site, almost all of this work is unpublished and resides in licence reports filed with the Ministry of Heritage, Sport, Tourism and Culture Industries (previously the Ministry of Tourism, Culture and Sport). Some of these reports are available online from the ministry's system while others can only be acquired after obtaining permission of the authors. These reports in PastPortal, contain a wealth of data on the Ontario Woodland Tradition occupation of Duffin Creek which together with published data allows a preliminary investigation of this occupation. It is worth noting that the sequence of sites on Duffin Creek currently represents the only complete or reasonably complete evidence of the Ontario Woodland Tradition occupation of a drainage system from early Pickering—about A.D. 800 for the Miller site (James V. Wright 2004), to the historic period—about A.D. 1615 for the Mantle site (Manning et al. 2018). While some sites have been destroyed by activities such as gravel pits, it is likely that many more sites remain to be found.

Once again to optimize Chapter 4, most of the summaries of the description, analysis, and interpretation of these sites are presented in Appendices B to G for the Pickering, Uren, Middleport, and Black Creek substages, respectively. Similar information for the Realignment substage sites remains in Chapter 4.

Chapter 5 provides a review of the concept of Coalescent Villages as applied to the Draper-Spang-Mantle sequence of villages on Duffin Creek. The term coalescent, was first applied to Draper by Brian Hayden (1979a, 8) and used by Ramsden (e.g., 1990, 363) in his definition of the Realignment phase of the “Huron” occupation of south-central Ontario. Unfortunately, the early references have been totally ignored by Birch and her co-authors.

This chapter provides a critical review of the concept of Coalescent Villages and revises some of the criteria used to define Coalescent Villages on the Duffin Creek. Based on new data, it presents the concept of Frontier Coalescent Village as one specialized type of Coalescent Village, located on a frontier with another cultural group with whom there were conflicts. It also provides new insights into the integration of the groups who joined Draper creating a unique Coalescent Village in which it is possible to detail the incoming population segments, but not their ultimate origin. Given the hypothesized means of integration used at Draper and the disappearance of some of these activities at Mantle it is posited as one of the reasons for the deterioration of Mantle as reflected by what appears to be the chaotic placement of houses in the late stage of the occupation of the village.

Chapter 6 provides some of the research which could be completed to provide a fuller understanding of Draper and its role in identifying the substantial changes in the Ontario Woodland Tradition occupation of Duffin Creek drainage during the Realignment substage.

1.5 Before Draper

The excavations at the Draper site in 1975 and 1978 were the first very large-scale excavations of an Iroquoian site in southern Ontario and remains one of the largest such sites excavated despite claims that Mantle is the largest, which it is not. It is incredible that 40 years later Draper remains one of the most significant excavations of an Ontario Woodland Tradition site in the Province of Ontario and that the potential for yet further research on the collections remains very great. Yet the scene for the Draper site excavations had been set by salvage excavations undertaken years earlier.

Of importance was Professor Norman Emerson’s salvage excavations at the Ault Park site, a multi-component Middle Woodland site (1956, 1958) in advance of the construction of the St. Lawrence Seaway. Emerson used belly-scrappers to remove the topsoil from the site and James V. Wright told a story of the equipment operator

stopping and pointing out a patch of red ochre the size of a silver dollar which turned out to be a Middle Woodland burial pit filled with red ochre.

Most vital to Ontario Woodland Tradition site excavations was James V. Wright's salvage excavation of the Nodwell site in Port Elgin in Bruce County on the eastern shore of Lake Huron. He subjected this Middleport village site to complete excavation in 1970 and 1971 using a small bulldozer to remove the plough soil (James V. Wright 1974). I was fortunate to be digging the Donaldson site near Southampton in 1971 and was able to see and evaluate Jim's work in the field and apply his methods to my own work at the Saugeen culture Thede and Donaldson sites (Finlayson 1977a). While planning the 1975 excavations at Draper, I had opportunities to discuss the upcoming work with Jim. He told me that had he expected to undertake additional salvage excavations of entire sites beyond Nodwell, he would have developed a computer program to map the settlement pattern data—the houses and palisades. Since this was not in his plans, all preparation of the maps of the longhouses and palisades for Nodwell were plotted by hand.

Chapter 2

Archaeological Investigations of the Draper Site

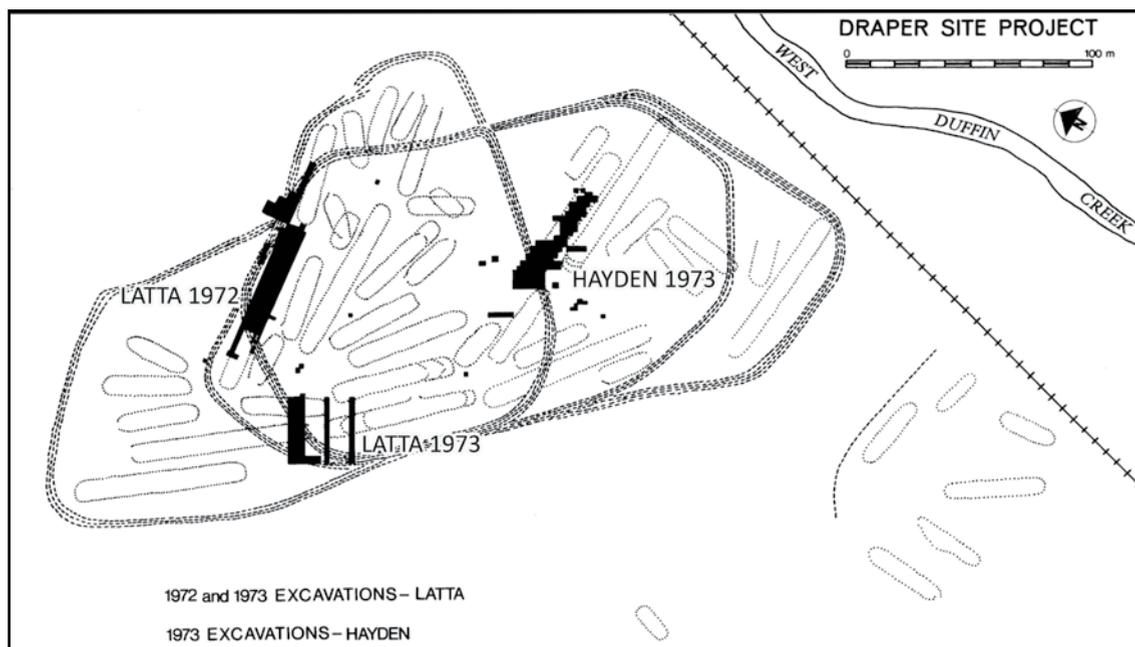
Archaeological investigations were undertaken on a research basis at the Draper site in 1953 and in the early 1960s. Salvage excavations began in 1972 and 1973 and were completed as rescue excavations in 1975, 1977, and 1978. These early excavations are summarized in Appendix A.

For the 1975 and 1978 investigations, laboratory processing and analysis of the artifacts started in the field in 1975 and continued through the 1980s. The collections have been the subject of study by a number of researchers since then.

2.1 The 1953, 1960s, 1972, and 1973 Excavations at the Draper Site

Excavations were first conducted at the Draper site by the Ontario Archaeological Society in 1953. Further excavations were undertaken in the 1960s by Peter G. Ramsden for his M.A. thesis. Salvage Excavations were undertaken in 1972 and 1973 by the Ontario Archaeological Society under the Field Direction of Marti Latta and Brian Hayden respectively (Figure 2.1). Further details are summarized in Appendix B.

Figure 2.1: Location of 1972 and 1973 Excavations by Latta and Hayden (Modified from Finlayson 1985, 30, 32)



2.2 Ramsden's 1977 Ph.D. Dissertation

One of the important studies which had a significant impact on our investigations at Draper was Peter Ramsden's use of the data from 28 Huron-Wendat sites for his 1975 Ph.D. dissertation (1977). He noted two then-current problems with the study of these sites. First, he detailed issues with respect to the use of ceramic types and argued for the use of attribute analysis of ceramics (1977, 22). Second, he noted the tendency to adopt interpretations of Huron-Wendat archaeology on a broad scale citing the work of MacNeish, Emerson, Noble, and James V. Wright. He specifically excludes work by Tyyska, Russell, and Latta on local sequences of sites in northern Huronia from this weakness (*ibid.*, 22).

Ramsden stated that the then-existing interpretations of Huron-Wendat prehistory have been

guided by the assumptions of a) historical accuracy of the documents regarding the nature of these social structures, b) the applicability of these documents to all Huron groups, and c) the necessity for the historic situation to have roots in prehistoric Huron development (*ibid.*, 23).

As an alternative, Ramsden stated that he believed:

it is more useful to interpret the Huron archaeological material by viewing the Hurons as being an example of the shifting agricultural kind of cultural adaptation, rather than as being the ancestors and relatives of a particular group of historically recorded people (*ibid.*, 24).

In undertaking his study, Ramsden presented detailed attribute data on the ceramic rim sherds from the 28 sites studied (1977, Table 1) and this remains the most detailed study of Huron-Wendat ceramics more than 40 years later. Noteworthy in this study is the observation that 10% of the rim sherds from Draper were high collared (*ibid.*). This raises the question whether this relatively high percentage of high collared pots is indicative of an increase in feasting related to integration of the villagers who joined Draper in a fashion somewhat similar to that detailed in the Crawford Lake area. In the latter, the increase in the percentages of high collared wares were interpreted as a mechanism to create and maintain alliances between the resident Middleport villages and those migrating into the immediate area from the west (Finlayson 1998b).

Ramsden provides a detailed interpretation of the 28 sites studied. He focuses on the presence of communities and their change through space and time. It is important to note that his comparisons involve not only ceramic attribute data but the then-available data on pipes and other classes of artifacts found on these sites, albeit it being limited in some cases. A more detailed review of his work is beyond the scope of this study which is focused on the Ontario Woodland Tradition occupation of the Duffin Creek drainage.

Ramsden's ceramic data for Draper did not compare easily with other groups of sites, some of which were portions of lineal sequences of sites in discrete areas in adjacent parts of southern Ontario. Given our current knowledge of the occupation of the Duffin Creek drainage, this is not surprising since the lack of fit of Draper does stand out as one which can only be understood in terms of more recent data which has become available for Duffin Creek over the more than 40 years since Ramsden's pioneering study.

One of the most essential aspects of Ramsden's study was the use of the Yanomamö of Venezuela and Brazil as an ethnographic analog to assist in understanding the Huron-Wendat occupation of southern Ontario. As an example, he suggests that the "Boyd and Seed-Barker sites may represent actual Neutral communities which migrated into the Humber valley and established contact with the [Huron-Wendat] Mackenzie group" (ibid., 270). Such a move was perhaps necessary to escape from enemies where they had lived. Ramsden also notes that such movements of both the Huron-Wendat and Neutrals were characteristic of unstable alliances and the need to create new alliances. This might have involved the trading, feasting, and ultimately exchange of women with the resident Huron-Wendat of the Humber in a manner similar to that described by Chagnon for the Yanomamö. The volatility of alliances between groups of precontact Huron-Wendat and others such as the Neutral and the resultant relocation of villages or segments of villages over distances, sometimes considerable, is a very crucial element of Ramsden's study which has been ignored by some prolific contributors to the field, despite citations referencing his work.

Strangely, except for this author's study of the Iroquoian occupation of the Crawford Lake area (Finlayson 1998b), the use of the Yanomamö as an ethnographic analogue has been ignored. As we shall see, important aspects of Ramsden's study which indicated a movement of Neutral people into the Humber has been ignored (e.g., Birch 2010) as has the presence of a group of Neutrals occupying one longhouse at Draper (Finlayson 1985, 387; James V. Wright 2004, 1353).

Ramsden's 1977 study has been enhanced by the study of the McLeod site by one of his graduate students (Reed 1990). This research involved the use of data recovered by the Ontario Archaeological Society in the late 1960s and early 1970s. Reed defines:

a group called the Lake Ontario Iroquois. This group was located along the north shore of Lake Ontario and extended from the Rouge River on the west to Prince Edward County on the east. It is hypothesized that the Iroquois formed a group similar to the historically described tribes of the Huron (ibid., 162, 163).

Also of interest is that Reed excludes the Draper and White sites because of their perceived long occupation.

Reed notes that her definition of the Lake Ontario Iroquois would include the "MacLeod and Payne groups as defined by Ramsden (1977)...[and] has close connections to the sites of the Hardrock group in the Trent Valley" (ibid., 151). Ceramics of the Lake Ontario Iroquois "are characterized by high frequencies of neck decoration, interior decoration and sub-collar decoration and a low frequency of lip decoration" (ibid.).

A comparison of these characteristics to data presented by Pearce (1978a, 68, 71) clearly supports Reed's conclusion that Draper is not part of the Lake Ontario Iroquois and thus represents yet another example of a community of Iroquoians who were not ancestral Huron-Wendat.

What is interesting about Reed's proposed Lake Ontario Iroquois is that it includes the Iroquoian occupants of the Rouge River west of Draper with other groups occupying the lands east of the Duffin Creek. This reflects the diversity of the Iroquoian populations which occupied the north shore of Lake Ontario.

Unfortunately, Reed's study has too been ignored. Her work does provide further data-based support for one of the results of this study. As detailed below it is now apparent that the Iroquoian occupants of Duffin Creek were not part of the historic Huron-Wendat Confederacy and did not relocate north to Huronia, since the latest site within the drainage, Mantle, was contemporaneous with Cahiague (Manning et al. 2018). Hence, they cannot be assumed to be ancestral Huron-Wendat as has been traditionally thought.

Ramsden provided a synthesis of Huron-Wendat archaeology almost 30 years ago (1990). This provided a significant revision of that part of the Ontario Iroquois Tradition relating to the Huron-Wendat. In this he defines the Black-Creek-Lalonde Period (A.D. 1400–1500), the Realignment period (A.D. 1500–1600), and the French

period (A.D. 1600–1649) (ibid., 381–384). Most details on this will be provided below in the discussion of the Iroquoian occupation of Duffin Creek drainage.

2.3 The Draper Site as an Iroquoian Village

As previously mentioned, Ramsden has argued that precontact Huron-Wendat sites should be viewed “as an example of the shifting agricultural kind of cultural adaptation, rather than as being the ancestors and relatives of a particular group of historically recorded people” (ibid., 24).

For purposes of this study, I classify the Draper site and other similar sites on the Duffin Creek drainage as Iroquoian sites which have a similar material culture and evolved out of earlier Ontario Woodland Tradition sites such as Miller and other later sites from adjacent Lake Ontario drainages or areas further afield. There are several reasons for this. First, a re-consideration of sites such as Frank Bay and Dougall by Fox and Garrad (2004) suggest that these two sites were Algonquian sites, not Ontario Iroquois Tradition sites, as suggested by James V. Wright in his 1966 publication. This situation is further complicated by publications where some of the house structures on Ontario Woodland Tradition “Iroquoian” sites are attributed to a possible Algonquian presence, e.g., Dunsmore (Robertson and Williamson 2003) and Mantle (Birch and Williamson 2015a). Lennox reminds us of the difficulties of assigning cultural affiliation to sites as he grappled with this issue at the Molson site (2000).

Further, my excavation and analysis of the Bradford East site (TLA 2016) clearly indicates the presence of an Algonquian site in what would traditionally be considered an area occupied by Ontario Iroquoians. In this study, the similarities and differences between the material culture of the occupants of the Bradford East site compared to nearby Ontario Iroquois sites was noted. One of my observations from this study was that it is difficult to segregate Algonquian from Ontario Iroquois ceramics and other aspects of their material culture but that this could be done. The net result is that existing collections of Ontario Woodland Tradition artifacts from sites across south-central Ontario need to be re-examined to determine if some of these can be attributed to an Algonquian rather than an Ontario Iroquois occupation or if there is a mixture of artifacts and settlement features from both cultures.

As noted, the recent publications by Kapyrka (2017) and Kapyrka and Migizi (2015) of Michi Saagiig history and oral traditions of the occupation of south-central Ontario (Migizi 2018) detail the migration of precontact Iroquoians by invitation into

Anishinabek territory and the exchange of wampum belts and negotiation and maintenance of an alliance between these two cultural groups are events which need to be considered in our ongoing interpretations of the precontact Indigenous occupation of south-central Ontario. Lawrence Jackson (2018, 2020) has also contributed to these interpretations.

2.4 *The Environment of the Draper Site*

Much has been written about the environment of the Draper site and surrounding lands (e.g., Mulstein and Bowman 1979). Climatic data are summarized in Table 2.1 and reveal an environment amenable to slash and burn agriculture as practiced by the Ontario Woodland Tradition occupants of the site. As Mulstein and Bowman note, “temperatures are higher and the growing season is longer in Pickering Tp., but precipitation is generally greater in Huronia—an advantage when one considers the preference of the Huron-Wendat for light, sandy and thus droughty soils” (ibid., 29).

Table 2.1. Climatic Data for Pickering Township
(modified from Mullstein and Bowman 1979, 29)

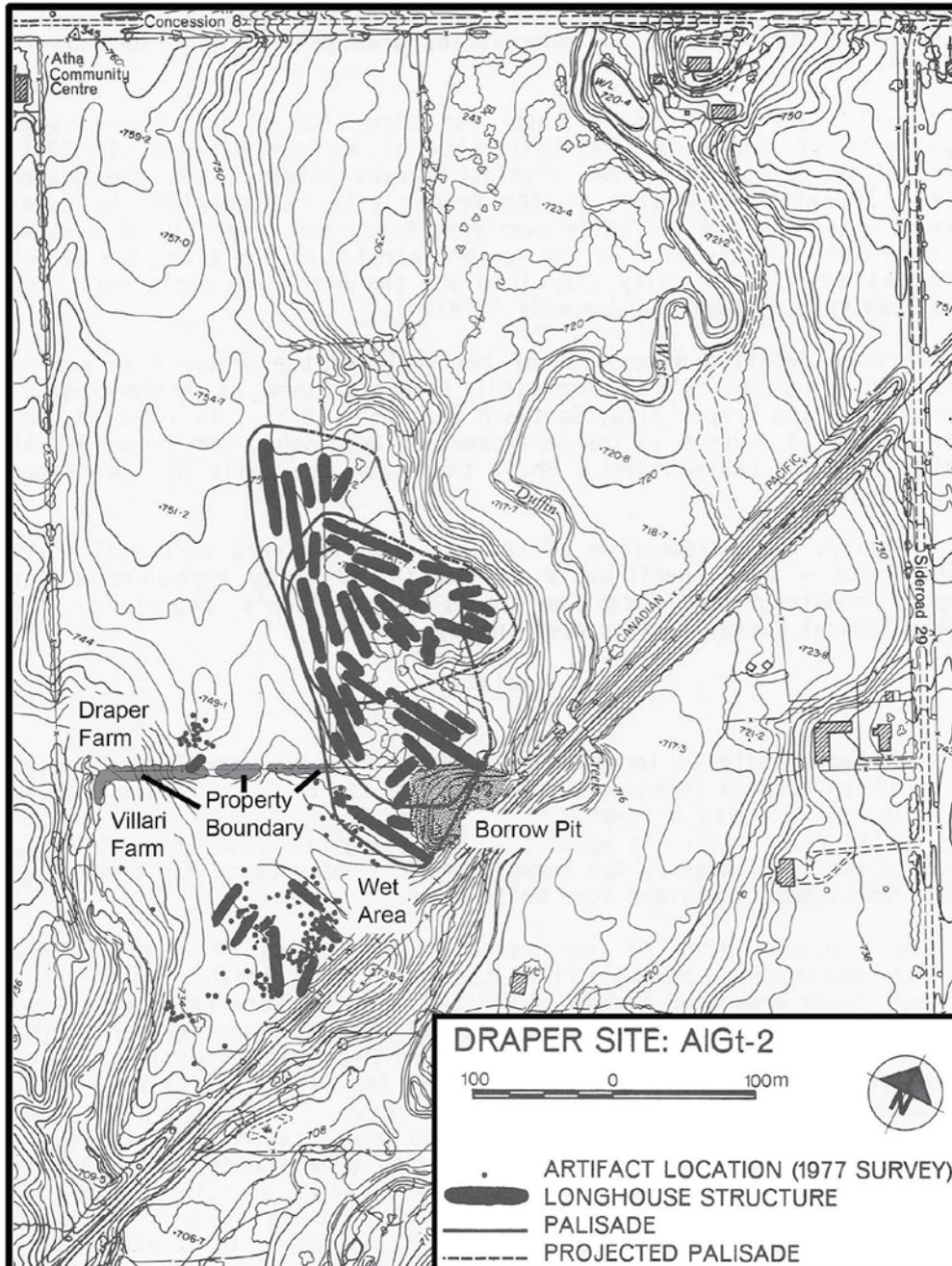
| | |
|---|--------------|
| Annual mean daily temperature | 6.7°C–7.8°C |
| Mean daily July temperature | 20°C–21.1°C |
| Mean annual growing degree days | 3400–3600 |
| Start of growing season (average temperature > 5.5°C) | April 10–15 |
| Mean date of first fall occurrence of 0°C | October 5–15 |
| Mean annual precipitation | 81.2 cm |
| Mean May–September precipitation | 35.6–40.1 cm |

Soils in the immediate area include Peel clay loam, Brighton sandy loam, and Milliken loam (ibid.). There are some differences in the suitability of these soils for Indigenous agriculture but these are relatively minor in nature.

The Draper site was located on tableland adjacent to Duffin Creek with a relatively steep slope along the northeastern edge of the village which would have provided a natural defensive barrier in this area (Figure 2.2). At the northeastern end of the site area there is also a break in slope although this is not as prominent as along the northeastern side of the village. There is a small gully which leads to the valley bottomlands and creek. This separates the Core Village from Segment D. Segment E and the South Field component of the Draper site was also located on tableland on

the Villari property to the south of the Draper farm. There was a low wet area separating the South Field from the Core Village. Structure 42 was located on the tableland approximately 90 m west of the Core Village. West Duffin Creek flows south to Lake Ontario in the valley below the tableland on which the site is located.

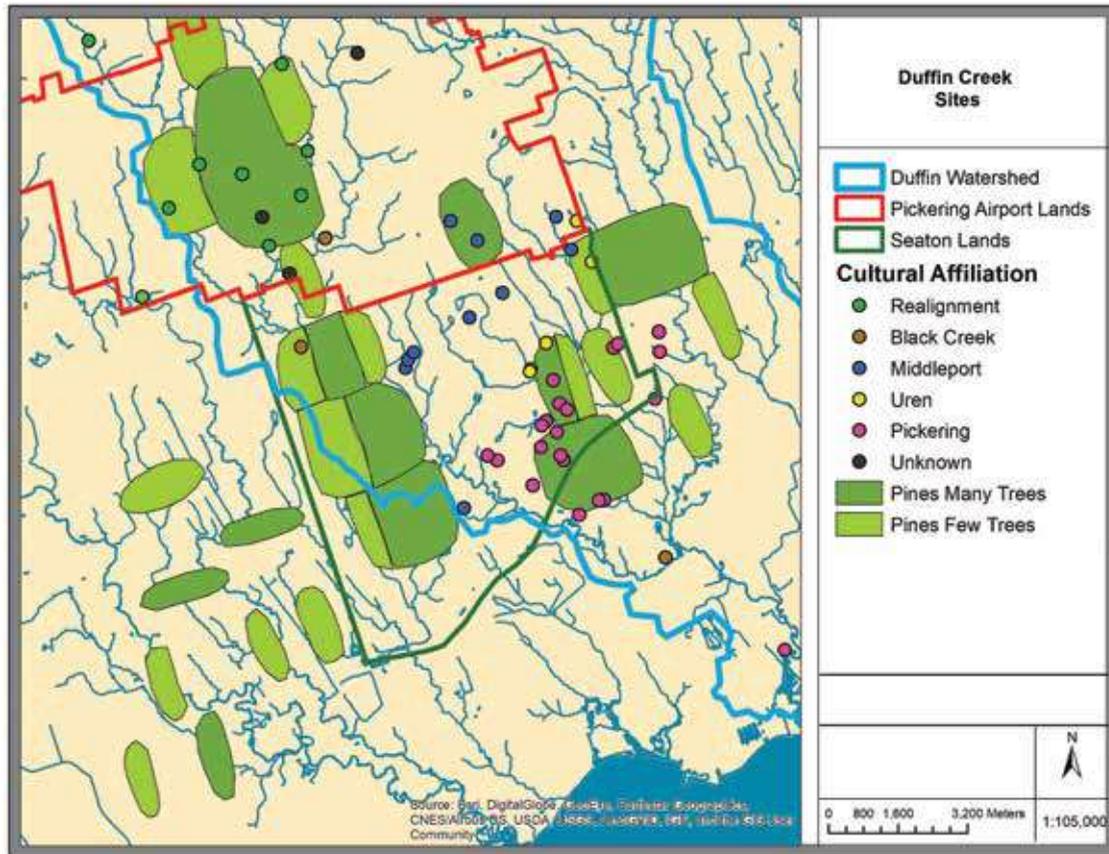
Figure 2.2: Topography of the Draper Site Area (modified from Finlayson 1985, 23)



2.5 Historic Vegetation

One of most interesting results of early investigations of the North Pickering (Seaton) areas was the paper by Irene Bowman (1974, 1979) on the large, even-aged stands of pine trees documented in Pickering Township in the late 18th century (Figure 2.3). These pine stands are interpreted as one stage in the regeneration of vegetation on the abandoned agricultural fields of the Ontario Woodland Tradition occupants of West Duffin Creek and the adjacent Rouge River in the sixteenth and earlier centuries A.D.

Figure 2.3: Location of Historically Documented Pine Stands and Known Late Woodland Sites (after Bowman 1974, 11)



The map of these pine stands shows Draper at the eastern edge of a large area which contains a great many pine trees. This suggests that the agricultural fields associated with the Draper site are located to the west of the site and west of West Duffin Creek. This also suggests that the lands to the east of West Duffin Creek were not agricultural

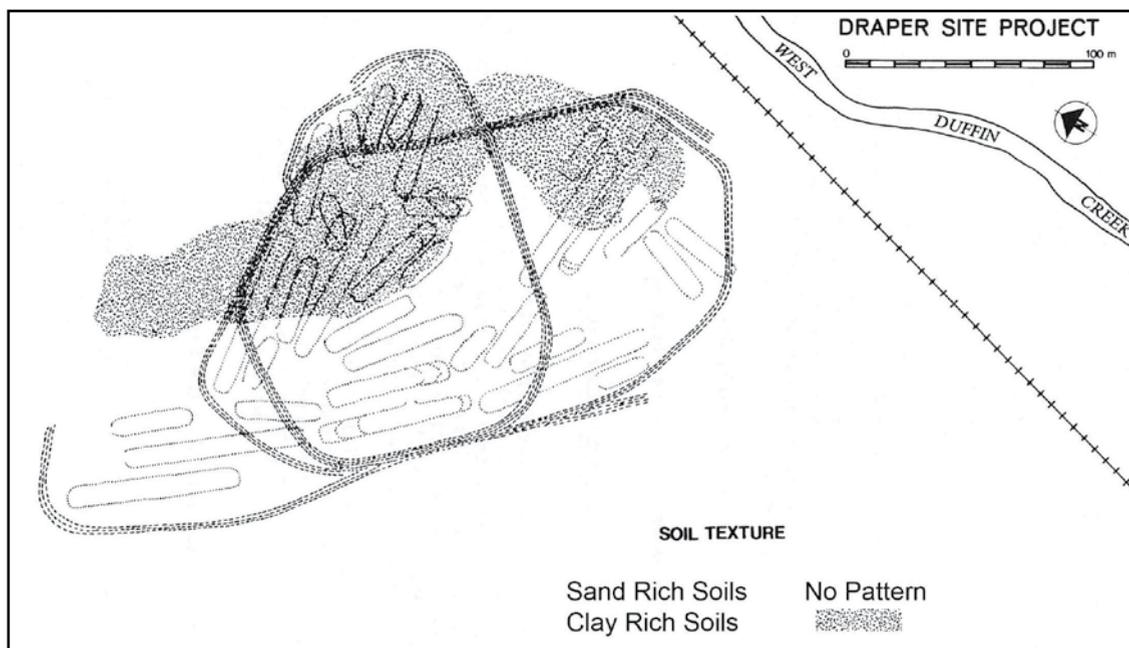
fields but were left as a Beech-Maple Climax Forest. This forest was important in that it provided a source of firewood closer to the village, not located beyond the edges of the extensive agricultural fields. It also provided a habitat for forest dwelling animals:

such as bear (Ursus americanus), southern flying squirrel (Glaucomys volans), grey fox (Urocyon cinereoargenteus), wolf (Canis lupus), as well as raccoon (Procyon lotor), bobcat (Lynx rufus) and woodchuck (Marmota monax), these last three also found in other habitats (T. Burns 1979, 3).

2.6 Soils of the Draper Site

One of the results of the soil studies undertaken at Draper was the discovery that the western part of the site had sand-rich soils while the eastern part had clay-rich soils (Figure 2.4). This raises the question as to whether the presence of clay-rich soils in Segment B and the eastern parts of the Core Village and Segment E might have had an impact on the numbers of wall posts used in the construction of houses in this area. These studies also identified the borrow pit on the eastern edge of the site which was a source of fill for the construction of the rail line by the Ontario and Quebec Railway Company in 1884 which destroyed part of the site (Mark 1983, 33).

Figure 2.4: Soils of the Draper Site (from Finlayson 1985, 25)



2.7 Getting Ready for the 1975 Rescue Excavations

Part of the planning for the 1975 excavations at the Draper site involved developing a custom set of computer programs for the processing of artifact catalogue data, describing, analyzing, and mapping of settlement pattern data and the description and analysis of the different categories of artifacts and ecofacts recovered. A summary of selected aspects of this work is presented in Appendix B.

Figure 2.5: Plot of Square 130–215 Showing Features and Post Moulds (modified from Finlayson 1985, 89)

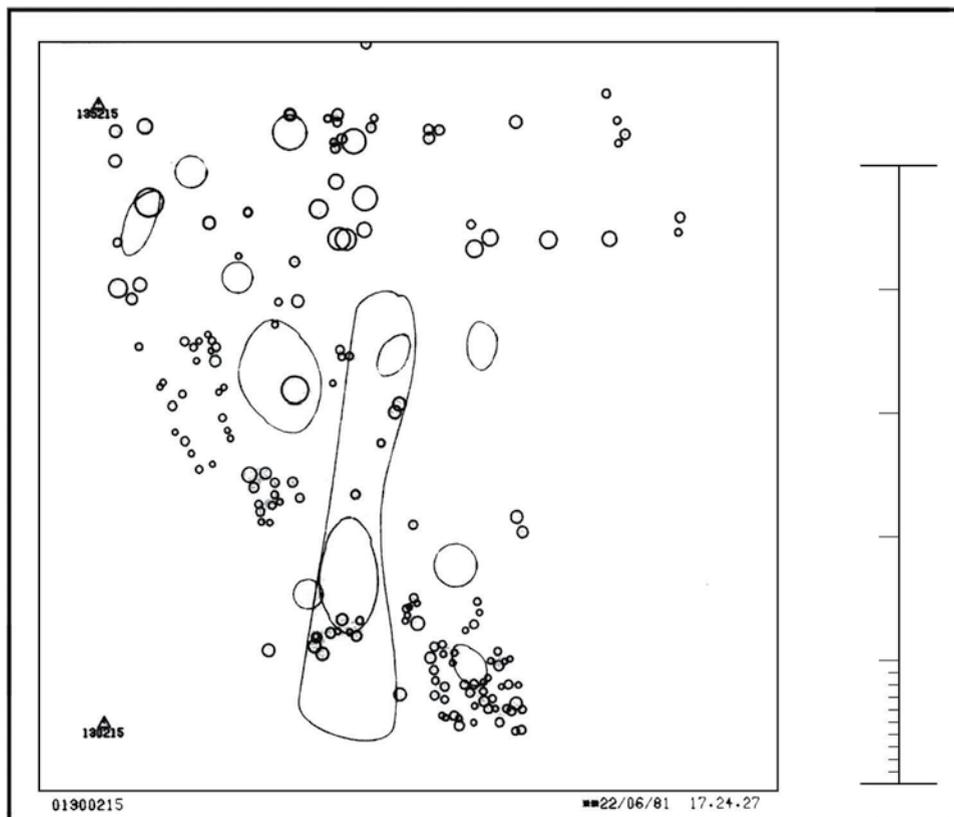


Figure 2.6: Computer Plot of House 9 at the Draper Site (modified from Finlayson 1985, 131)

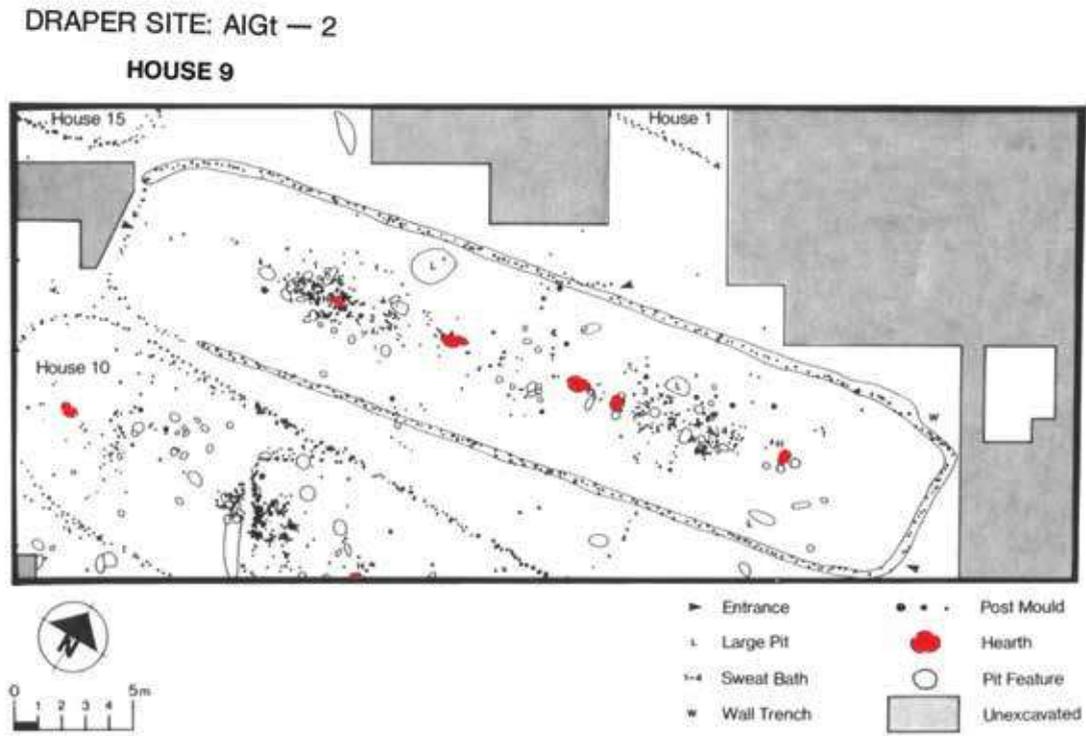


Figure 2.7: Distribution of Rim Sherds in House 5 (from Finlayson 1985, 90)

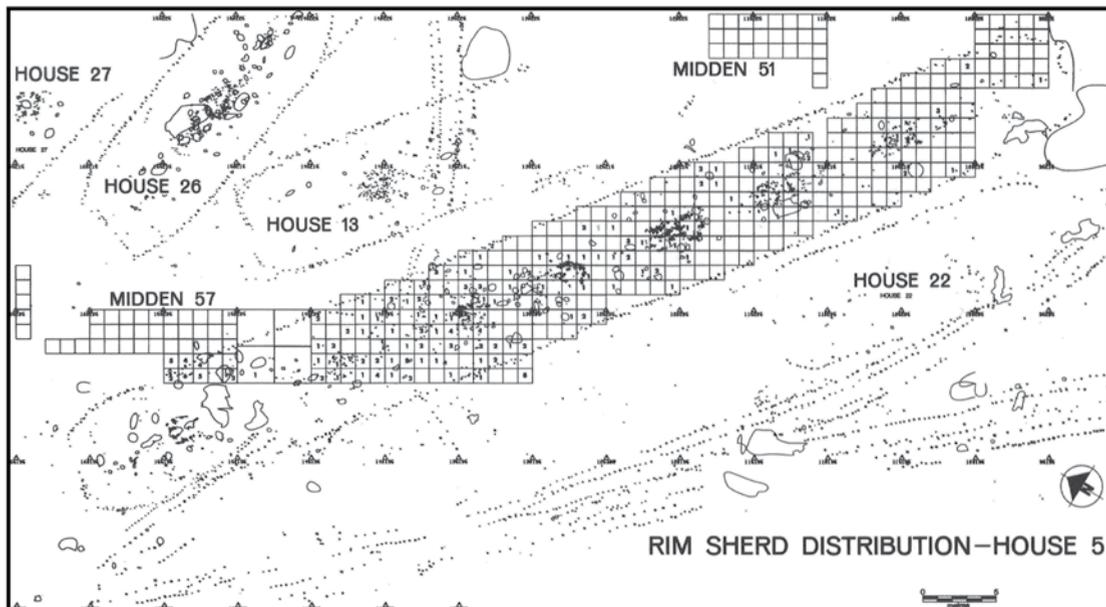
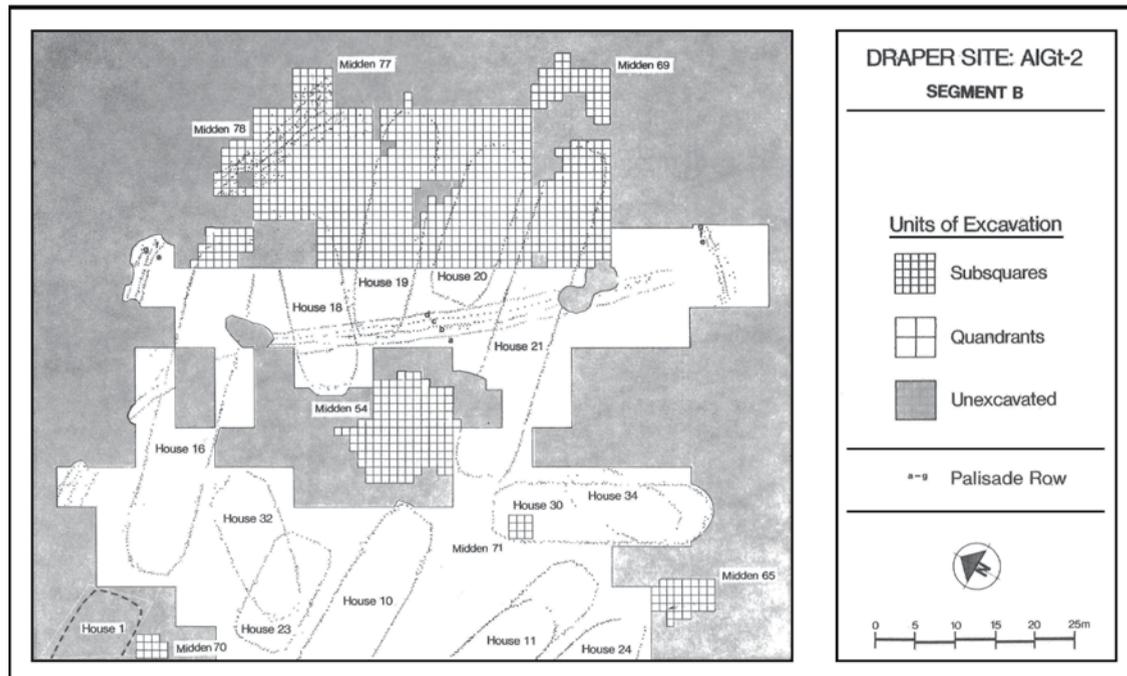


Figure 2.8: Computer Plot of Segment A of the Draper Site (from Finlayson 1985, 188)



2.8 Objectives of the 1975 and 1978 Rescue Excavations at the Draper Site

The specific goal of our 1975 and 1978 excavations was the total excavation of the Draper Site as detailed in the contract signed by The University of Western Ontario with the National Museum of Man. This was considered necessary since the site was to be destroyed by the construction of the New Toronto International Airport in the spring of 1976. We established a number of stated objectives within this overall goal:

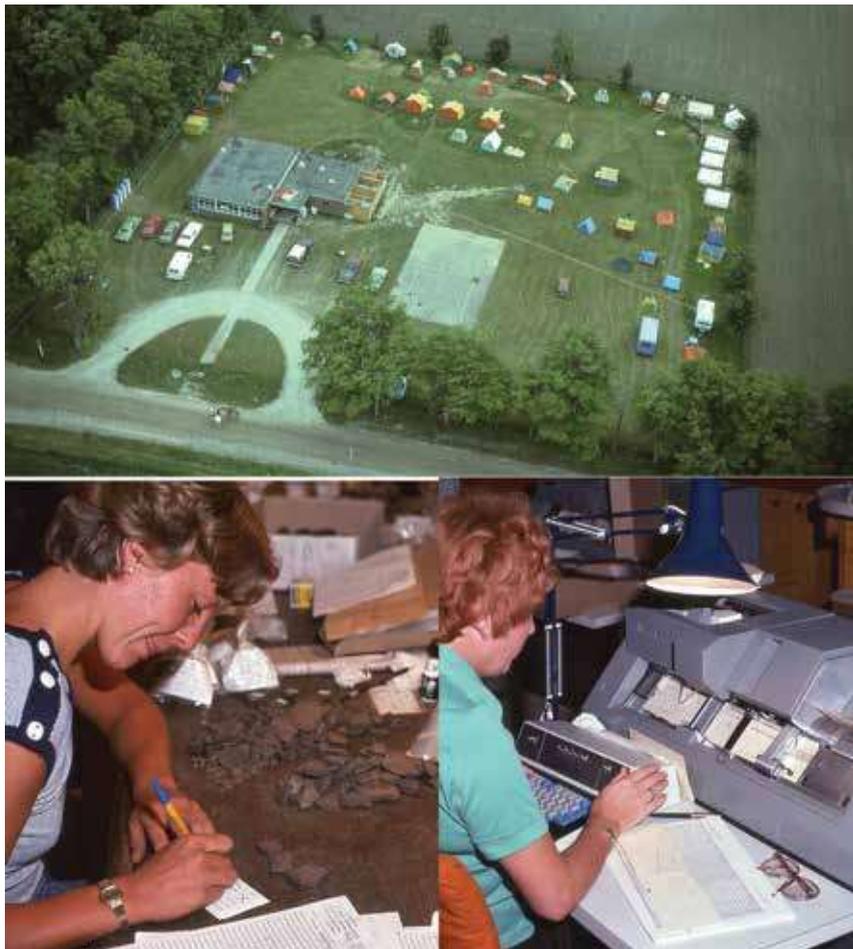
- to acquire a complete plan of the site showing the location of all house structures, middens, etc.;
- to determine the nature of the palisades which surrounded the village;
- to investigate the middens on the site and excavate these totally;
- to use a flotation technique to collect information on the use of plants for subsistence;
- to study the soils of the site and the effect of the occupation on them;
- to explore the distribution of artifacts within the floors of some of the undisturbed houses;

- to compare the contents of the living floors of the longhouses with the pits dug into the floors of the houses; and
- to investigate the use of random sampling designs as techniques for future excavation of Huron sites (Finlayson 1985, 35,36).

In order to achieve these objectives in 1975, we used very large crews in both the field and the field laboratories.

We used an abandoned two-room school as one place to pitch tents to house our crew (Plate 2.1) and to establish a field laboratory to wash and catalogue artifacts (Plate 2.1) and to fill out pencil-marked computer cards to allow processing of settlement pattern data. In 1978 this process involved the use of key punch machines which were installed in a recently vacated house which became our administrative office (Plate 2.1).

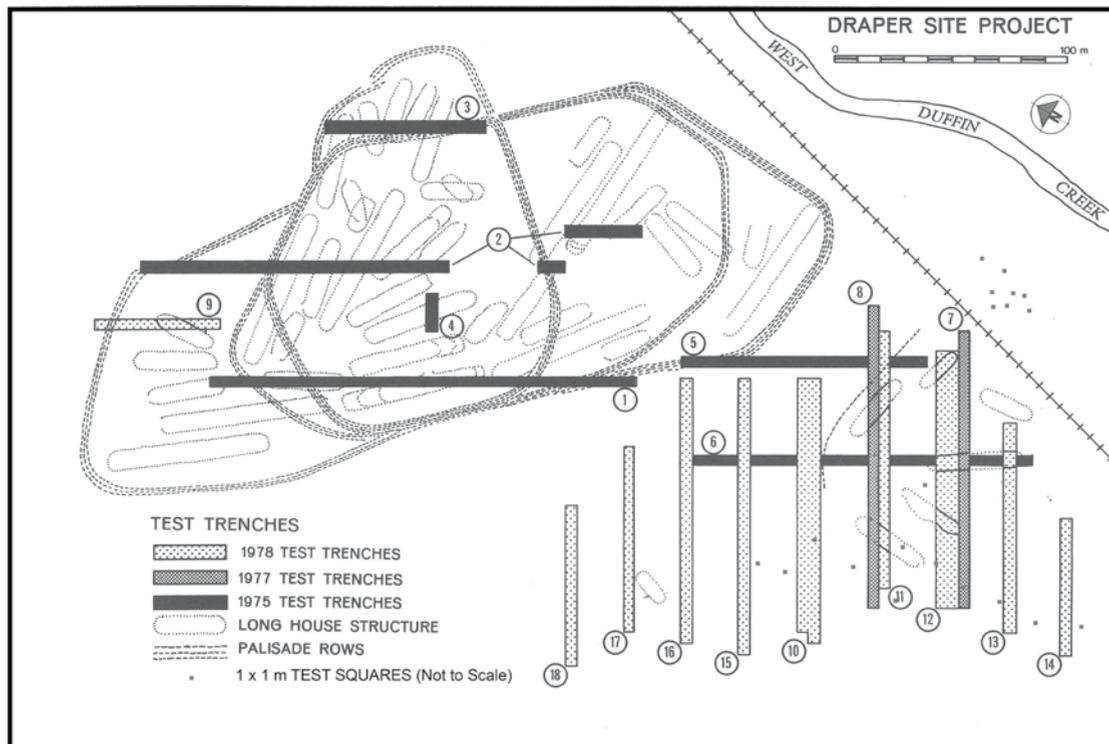
Plate 2.1: *Upper*, Aerial View of Glasgow School as Field Facilities; *lower left*, Cataloguing of Artifacts in Field Laboratory; *lower right*, Key Punching of Data in Field Administrative Facility



2.9 Field Strategies and Methods

Different strategies were used to investigate different parts of the Draper Site. While the original goal of the 1975 excavations of the Draper site was its total excavations, there were two mitigating circumstances. Part way through the 1975 field season we discovered that the Draper site was much larger than previously known. It extended farther to the north and into the farm field to the south; apparently no one had bothered to determine if the site extended beyond the Draper farm onto the Villari property (Figure 2.3). Additional funding was obtained and three more field crews were added to the crew complement. Further, during the latter part of the 1975 field season, the federal government cancelled the construction of the new airport and we were then hopeful that extra funding would be available for a second major season of excavation. Minor funding was obtained in 1977 to excavate two test trenches to attempt to determine the number of houses in the South Field (Figure 2.9). Full funding was obtained to complete the almost total excavation of the site in 1978.

Figure 2.9: Location of All Test Trenches and 1 x 1 m Test Squares (modified from Finlayson 1985, 58)



We divided the Draper site into three parts: a Main Village with 37 houses, two inferred houses and two special structures; the South Field with seven longhouses and Structure 42; and a small structure 80 m west of the Main Village.

In 1975 middens were excavated under the direction of Peter Ramsden. The location of many of these artifact-rich deposits was known from Ramsden's previous investigations at the site. He also searched for additional middens by walking the surface of the undisturbed portion of the site feeling for spongy soil indicative of these deposits and excavated a number of test pits looking for artifact-rich black organic soil.

The middens were excavated in 1 x 1 m squares. For deep middens, excavations were in 10 cm levels while for shallow deposits the squares were excavated as a single level. In most cases, 6 mm mesh screen was used while in some cases, 12 mm mesh was used. Both hanging, hand-propelled, and mechanical screens were used (Plate 2.2). We experimented with the use of a motorized conveyor system which was provided by the Museum in Ottawa (Plate 2.2). This was not effective. Flotation samples were collected from all levels of selected squares and processed using a double-bucket method set up beside Duffin Creek immediately below the site (Plate 2.2).

To investigate the settlement patterns, I initially directed the excavation with six test trenches in 1975 (Figure 2.9). These trenches provided information on the locations of 19 longhouses including the presence of at least one house in the South Field where excavations (Figure 2.9) had indicated that the site extended beyond the Draper farm. Most important was the ability to infer the presence of House 12 between Trenches 1 and 2. Trench 4 was excavated to confirm the location of this house which was then selected for complete excavation in 1 x 1 m squares. The excavation of House 12 was completed in 1978.

I used the information from these test trenches to make decisions about how to dig the houses. For the Main Village we began by removing the sod from the squares containing selected longhouses. Initially, the sod was cut and removed by hand. We discovered that a mechanical sod cutter made the cutting of the sod much easier. Still, in some cases, the sod was then removed by hand. Again, with experimentation, we found the most effective way to remove the sod was to back-drag it off the square with the toothless bucket of the bobcat. A variety of methods were used to screen the undisturbed living floor or plough-disturbed deposits of the houses or areas between houses in their 1 x 1 m or 2.5 x 2.5 m squares. This included:

- shoveling the soil into wheelbarrows and dumping it or shoveling it into mechanical screens (Plate 2.2);
- shoveling the soil into hanging screens beside the squares;

Plate 2.2: *Upper left*, Screening Soil from Wheelbarrows with Mechanical Screen; *upper right*, Screening Deposits Removed by Bobcat with Mechanical Screen; *lower left*, Experimental Use of Motorized Conveyor to Move Midden Soil to Screen; *lower right*, Double Bucket Flotation of up to 50 13 litre Samples a Day



- shoveling the soil into wheelbarrows and placing it into a large screening box where it was water-screened using water provided by a pump from the stream beside the site;

- removing the soil with the straight edge of a bucket of the bobcat and dumping it into a mechanical screen with an oversize screening box (Plate 2.2); or
- removing the soil with the bucket of the bobcat and placing it into the large screening box for water screening (Plate 2.3) (Finlayson 1985, 48,49).

Plate 2.3: *Upper left, Dumping Living Floor Deposits into Water Screening Box; upper right, Artifacts and Debris in Water Screening Box after Soil Removed by Water from Wajax Fire Fighting Pump; lower left, Use of Bulldozer to Remove Topsoil; lower right, Use of Road Grader to Remove Remnants of Topsoil*



In 1977 we arranged to have the field on the Villari property south of the Draper farm cultivated to allow a surface survey. This was done to get a better idea of the full extent of the site in this area than was possible from the test squares dug in 1975 (Figure

2.9). It also provided a map of artifact distributions showing the scope of the site in this area and concentrations of artifacts which may have represented plough-disturbed middens. At the same time, we had the land to the west of the site cultivated, again to allow a visual survey. This resulted in the discovery of a scatter of artifacts in the field 80 m west of the Main Village (Figure 2.2). This work was undertaken as part of the archaeological survey of the Airport Lands that was also being carried out by the Museum. These provided important information for the planning of the completion of the excavations in 1978. Two test trenches were also excavated in the South Field to begin to look for evidence of houses and palisades (Figure 2.9).

In 1978 we excavated one test trench (#9) in 1 x 1 m squares with screening of the topsoil (Figure 2.9). This resulted in the discovery of House 38. To the south and west of the Main Village a total of nine test trenches were excavated such that we were able to screen the plough soil from parts of five houses in the South Field and all of Structure 42.

We also sprayed water from the pumps to wet down parts of the site to make it easier to see features in the subsoil.

Using these methods, we excavated and screened a total of:

- 1,860 1 x 1 m squares in 18 undisturbed houses including all of Houses 12 and 38 and almost all of House 5 and smaller portions of 15 other houses—4.34% of all areas excavated;
- 260 2.5 x 2.5 m quadrants of 5 m squares in seven houses on the undisturbed part of the site—3.79% of all areas excavated;
- 264 2.5 x 2.5 m quadrants of 5 m squares in six plough-disturbed houses in the South Field and Structure 42—3.85% of all areas excavated;
- 1,747 1 x 1 m squares in midden squares adjacent to undisturbed houses—4.08% of all areas excavated;
- 1,185 1 x 1 m squares in non-midden, non-house deposits within the Main Village—2.76% of all areas excavated; and
- 23 2.5 x 2.5 m squares in non-midden squares adjacent to plough-disturbed houses—0.34% of all areas excavated.

In total, 8,688 sq m of archaeological deposits were subject to screening, primarily with 6 mm mesh which constitutes 19.15% of all area excavated. A total of 34,658 sq m of topsoil was removed by power equipment (80.65%) of the area excavated; the total being 42,869 sq m.

In excavating longhouses, all pits had plans and profiles drawn and flotation samples were taken from most features.

On the plough-disturbed portions of the site and also on selected undisturbed portions of the site, we used a bulldozer (Plate 2.3) to remove topsoil deposits after we had completed the investigation of those parts of the site where we focused on digging undisturbed living-floor deposits or in the case of the South Field some of the plough-disturbed deposits. In the large area of plough-disturbed deposits to the southwest of the Main Village, we used a road grader to remove the remainder of the plough soil (Plate 2.3).

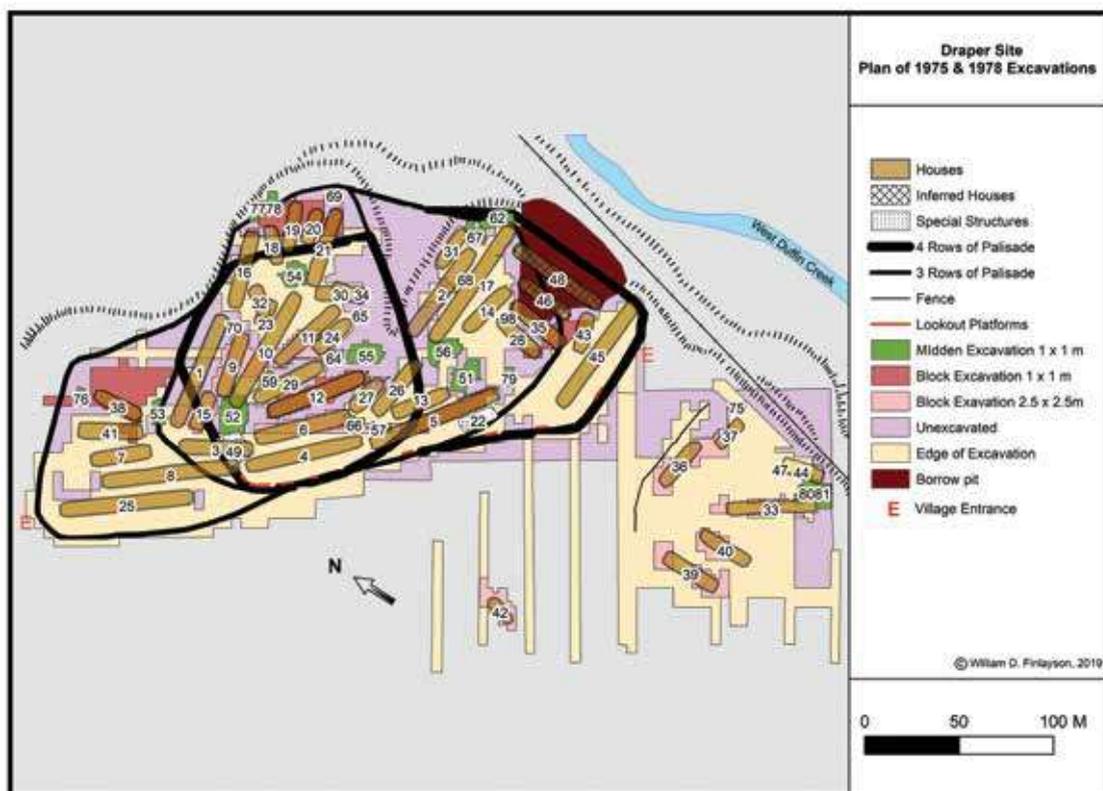
The use of these innovative strategies involving both hand excavation and a variety of mechanical equipment allowed us to explore relatively large parts of the site in detail, while sacrificing other parts to ensure we met our contractual obligations to fully excavate the site.

2.10 Results of the 1975 and 1978 Excavations

2.10.1 Summary of Excavations

In total we excavated 4.29 ha of the Draper site (Finlayson 1985, 50, 62) (Figure 2.10). As noted, 8,211 sq m of the archaeological deposits were subject to screening. This constitutes 19.15% of the area excavated.

Figure 2.10: Revised Site Plan of Excavations of the Draper Site 1975–1978



Our excavations resulted in the excavation of 47 structures and the inference of two houses destroyed by the borrow pit, a source of fill to construct the railway beside the site in the 19th century. (Table 2.3, Plate 2.4.) We recorded more than 33,600 post moulds including more than 19,600 small sweat bath post moulds, 1,889 features, and 102 hearth floors. It is estimated that at least 16,013 post holes were dug to create palisades and that at least 8,370 posts were required for construction of palisades if poles were recycled when the palisades were taken down and expanded palisades built.

Plate 2.4: *Upper*, Aerial View of Excavations at the Draper Site in 1975; *lower left*, Circular Cluster of Sweat Bath Post Moulds in House 15; *lower right*, Dog Burial



Our excavations in 1975 and 1978 resulted in the recovery of 171,104 diagnostic artifacts and 1,286,556 grams of non-diagnostics such as fragmentary sherds, chipping detritus, bone antler, and shell fragments, carbonized plant remains, and charcoal based on catalogue counts (Finlayson 198, 52, 53, 65, 66) (Table 2.2).

Table 2.2. Summary of All Artifacts Recovered from the 1975 and 1978 Excavations at the Draper Site (from Finlayson 1985, 52, 53, 65)

| Artifact Category/Class | Year 1975 | | 1978 | | 1975 and 1978 | |
|--------------------------------------|------------|------------|------------|------------|---------------|------------|
| | No. Pieces | Weight (g) | No. Pieces | Weight (g) | No. Pieces | Weight (g) |
| Rims | 14,718 | | 2,035 | | 16,753 | |
| Castellations | 751 | | 288 | | 1,039 | |
| Frag Rims | 10,124 | | 1,048 | | 11,172 | |
| Other Vessel Fragments | 116,959 | | 4,480 | | 121,439 | |
| Frag Sherds | | 748,930 | | 75,471 | | 824,401 |
| Pipe Fragments | 3,119 | | 590 | | 3,709 | |
| Juvenile Vessels | 3,241 | | 242 | | 3,483 | |
| Other Ceramics | 1,406 | | 104 | | 1,510 | |
| Chipped Stone Tools | 1,387 | | 84 | | 1,471 | |
| Utilized Flakes | 1,086 | | 102 | | 1,188 | |
| Chipping Detritis | | 8,940 | | 1,870 | | 10,810 |
| Ground and Rough Stone | 4,654 | | 140 | | 4,794 | |
| Bone, Antler, and Shell Artifacts | 4,211 | | 330 | | 4,541 | |
| Bone Fragments | | 226,331 | | 14,381 | | 240,712 |
| Carbonized Plant Remains | | 102,164 | | | | 102,164 |
| Charcoal Fragments | | 108,469 | | | | 108,469 |
| Copper Artifacts | 5 | | | | 5 | |
| Totals | 161,661 | 1,194,834 | 9,443 | 91,722 | 171,104 | 1,286,556 |

Forty years later, Draper remains one of the most significant excavations of an Ontario Woodland Tradition sites in Ontario.

Detailed analyses of most of the significant data and artifacts have been completed. Some reports are published, some are graduate theses, and some are manuscripts. The results of many of these are summarized below.

2.10.2 Settlement Patterns

The major objective of the 1975 and 1978 excavations of the Draper site was to obtain a complete plan of the village. We succeeded in the almost complete excavation of the site except some of the rows of palisades along the northeastern edges of the village. Unfortunately, there was a borrow pit for fill for the construction of the railroad beside the site in the 19th century which had destroyed parts of Expansions 4 and 5.

Based on the village plan it is estimated that two house structures were probably destroyed by this borrow pit. A revised and enhanced plan of the excavations has been prepared. This map was created by scanning and digitally combining the computer drawn plots of each of the different segments (e.g., Figure 2.8) of the Draper site to produce an overall site plan which was then imported into Arc-GIS and used as a base map for other figures in this study (Finlayson 1985, 111 and 582, 188, 241 and 588, 309 and 593, 369 and 598, 442 and 489) (Figure 2.10).

It became apparent early in our 1975 excavations that the Draper site was an unusual Ontario Woodland Tradition village in that it underwent numerous expansions. At the end of 1975 it was unclear exactly how the houses in the South Field related to the Main Village and this relationship was not clarified until the 1978 excavations were underway.

At the conclusion of the 1978 excavations it was clear that there were three separate parts to the Draper site:

1. The Main Village comprised of 34 longhouses, two inferred houses in Segment F (which had been destroyed by the borrow pit, three short houses, and two special structures, all segments of which were surrounded by palisades. It began as a small village and was expanded by the addition of five segments to become a very large village;
2. The South Field comprised of seven longhouses (including two overlapping structures) and a fence between these houses and the Main Village; and
3. Structure 42, a small house located 60 m west of the Main Village (Figure 2.10) (Table 2.3).

**Table 2.3. Summary Data on Longhouses and Other Structures at the Draper Site
(adapted from Finlayson 1985)**

| | Segment | Long- houses | Inferred Longhouses | Short Houses | Special Structures | |
|--------------|----------------|-------------------------|--------------------------------|-------------------------|-------------------------------|----|
| Main Village | A | 4 | | | | |
| | | 6 | | | | |
| | | 9 | | | | |
| | | 10 | | | | |
| | | 11 | | | | |
| | | 12 | | | | |
| | | 24 | | | | |
| | | 29 | | | | |
| | | | | | | 49 |
| | | | B | 16 | | 23 |
| | | 18 | | 32 | | |
| | | 19 | | 34 | | |
| | | 20 | | | | |
| | | 21 | | | | |
| | | 30 | | | | |
| | C | 1 | | | | |
| | | 3 | | | | |
| | | 15 | | | | |
| | D | 7 | | | | |
| | | 8 | | | | |
| | | 25 | | | | |
| | | 38 | | | | |
| | | 41 | | | | |

Table 2.3. continued

| Segment | Long-houses | Inferred Longhouses | Short Houses | Special Structures |
|--------------------|--------------------|----------------------------|---------------------|---------------------------|
| E | 2 | | | 22 |
| | 5 | | | |
| | 13 | | | |
| | 14 | | | |
| | 17 | | | |
| | 26 | | | |
| | 27 | | | |
| | 31 | | | |
| F | 28 | | | |
| | 35 | | | |
| | 43 | | | |
| | 45 | | | |
| | | 46 | | |
| | | 48 | | |
| Sutotal | 34 | 2 | 3 | 2 |
| South Field | 33 | | | |
| | 36 | | | |
| | 37 | | | |
| | 38 | | | |
| | 40 | | | |
| | 44 | | | |
| | 47 | | | |
| Subtotal | 7 | | | |
| Special Structure | | | | 42 |
| Subtotal | | | | 1 |
| Totals | 41 | 2 | 3 | 3 |
| GRAND TOTAL | | 49 | | |

For the Main Village, a number of questions arose due to the multiple rows of palisades which suggested that the Draper site expanded during its occupation. These questions were:

- What was the sequence of expansions of the village?
- Were there changes in the houses and palisades as the village grew?
- How long was the Draper site occupied?
- Where did the people who occupied the Draper site come from?
- Why did the Draper site grow from a small village to a very large village?
- Where did the people from the Draper site go after the abandonment of the site?

The exploration of these questions formed a large part of my 1985 volume on the settlement patterns of the Draper site which was published by the National Museum of Canada, National Museum of Man, Archaeological Survey of Canada (Finlayson 1985). In part, my investigation of the settlement patterns at the Draper site involved describing and comparing selected aspects of the houses in the different segments of the village defined by expansions in the palisades.

2.10.2.1 THE MAIN VILLAGE LONGHOUSES

Longhouses are primarily defined by rows of post moulds which make up the walls of the house. These moulds are visible as dark stains in the yellow subsoil, generally circular, 3 to 5 cm in diameter and tapered to a point about 20 to 30 cm below the subsoil surface. Sometimes the mould is created by the rotting of the post in situ and other times the pole is pulled out and the hole is filled by dark topsoil. I estimated that more than 13,680 poles would have been required to construct the vertical walls of the houses in the Main Village (*ibid.*, 408).

The ends of the houses are usually either tapered or rounded and there is often an entrance in the end of the house marked by an absence of post moulds. On certain houses, particularly the longest ones, there are one or more entrances in the side walls. Some of the house walls show wall trenches indicating that a long linear shallow trench with a basin-shaped profile was dug into the subsoil to mark the location of the house walls and to facilitate the placement of the wall posts. These trenches were found in at least one house in each segment of the Main Village except Segment F, where ploughing may have destroyed these features. These were not a significant construction feature in the houses of the Main Village except for two houses (#9 and 12) in the Core Village where they were present for most of the walls.

In the interior of the house there were benches on either side. These are manifested by the lack of features along either side of the house and often by the presence of large post moulds, or pit features, which were deeper than they were wide and which I interpreted as bench support post moulds. These features supported the benches and the structural components of the rafters and roof. Well defined rows of bench supports were found in 33 of the 37 houses in the Main Village (Finlayson 1985, 408).

Evidence of large support posts in the central corridor were found in only 20 of the 37 houses in the Core Village.

Within the houses there were central corridors and within these we found evidence for hearths, manifested by red fired soil, spaced at intervals along the corridor. Historical documents for the Huron-Wendat indicate that each hearth, or occasionally closely spaced pairs of hearths, was shared by two families, one on either side of the house (e.g., Heidenreich 1971, 116, 117). By counting the number of hearths in a house, its population was estimated by multiplying the number of hearths by two (the number of families which shared a hearth) and multiplying the number of families by six (one estimate of the number of individuals in a family (Heidenreich 1971, 118). The spacing between the hearths in houses in Segments A, B, E, and F of the Main Village ranged from 7.1 to 7.7 m while for houses in Segments C and D the distance averaged 6.3 m (Finlayson 1985, 414). The distance of central hearths to the end of the houses averaged 7.0 m, almost identical to the internal hearth spacing. There were clearly well-defined ideas for the spacing of these features.

There were also circular clusters of small post moulds which historical evidence indicates are the remains of temporary sweat baths which were placed in the central corridors of 92% of all houses (excepting #20, 24, 31, 34, and 43). We documented a total of 19,773 sweat bath post moulds in the houses of the Main Village (*ibid.*, 180, 181, 235, 267, 303, 362, 393). The densities of these ranged from 3.21 per sq m in Segment A to 0.49 per sq m in Segment E (*ibid.*, 409).

This suggests, as Allen Tyyska has observed (1972, 7, 2015), that there was a very well-defined concept of spatial utilization within central corridors of the longhouses. That is, sweat baths were not constructed in random locations with the central corridor, but in very specific places. Neither were they constructed outside the houses within the village at Draper (Finlayson 1985, 409, 410).

This pattern of sweat bath post moulds would not have been seen without the extensive house excavations that took place at Draper.

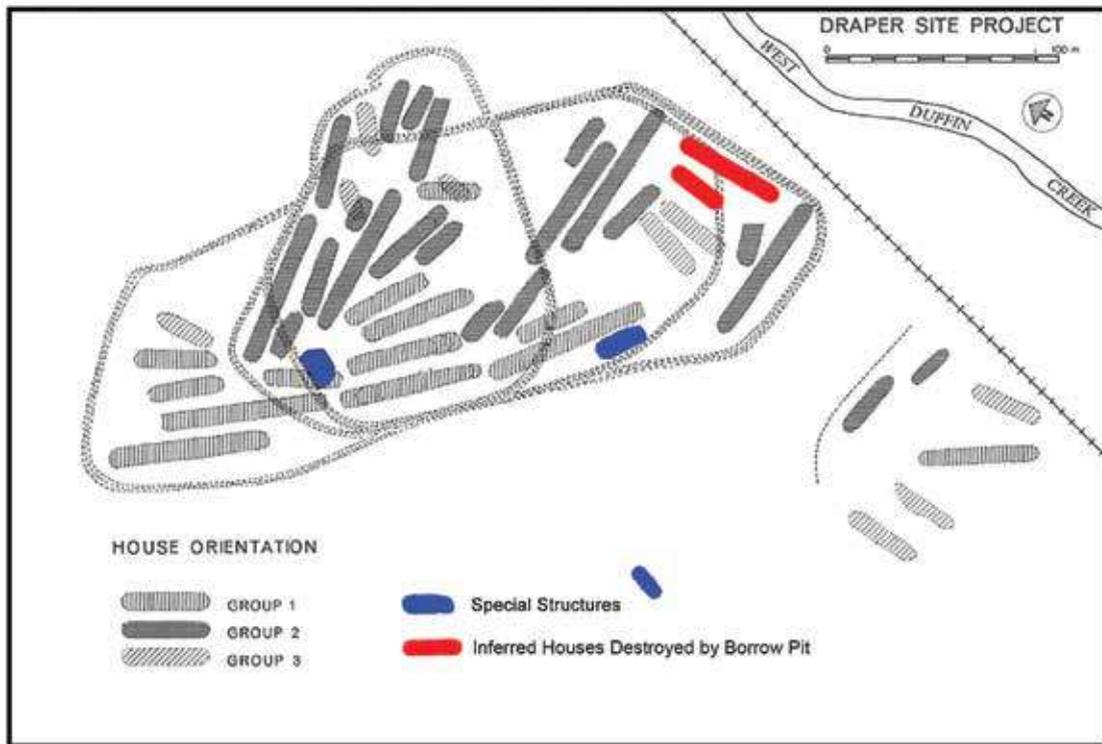
Pits were holes dug in the floor of the house which served some function, generally unknown and were filled with soil or ash from the fireplaces which often contained artifacts. Rarely such pits contained human or dog burials. Small pits were distinguished from large pits. We documented 1,748 small pits, 50% of which were ovate in shape and 24% of which were circular. Of the pits, 78% had basin-shaped profiles (*ibid.*, 412). There were 92 large pits (*ibid.*, 413). Fourteen pits contained human burials which are discussed below. This is a relatively large number of in-house burials, but this is again a factor of the extent of excavations conducted at the site. Tiina Burns reports that three dog burials were recovered, all from longhouses (1979, 14). None were found in 1978.

Seven houses were extended in length, four in Segment A (#4, 6, 10, and 11), one in Segment C (#15) and two in E (# 17 and 26). While these may have resulted in more families joining these houses, some of the extensions were clearly designed to reduce the distance between adjacent houses thereby restricting access to parts of the village. Two houses (#6 and 10) were shortened.

Originally, I noted that there were two different sizes of houses at Draper: small and large. The large houses are interpreted as chiefs' houses which were not only residential structures but would have served as meeting places where chiefs pursued their special functions. Chiefs' houses had greater densities of sweat bath post moulds and pits. In retrospect, I now believe that there are three different sizes of houses and that Houses 23, 32, and 34 should be separated to represent small houses, while the originally defined group of small houses should be classified as medium-sized houses. This distinction is made to allow a consideration of whether these small houses may represent an Algonquian occupation of Draper similar to that proposed by Birch and Williamson for Mantle (e.g., Birch 2010, 122). A reexamination of the plans of these three houses suggests that their interior features were different, in particular, they lacked the distinctive patterns of circular post moulds characteristic of the above ground sweat lodges (Plate 2.4).

There were three orientations of house structures (Figure 2.11). In three segments of the village, A, E, and F, the two different orientations of houses were interpreted as clusters of houses belonging to different clan segments. In my original publication I noted the correlation between the size of population of the clan segments with the number of chiefs' houses in the cluster of houses representing clan segments.

Figure 2.11: House Orientations at the Draper Site Also Showing Special Structures and Inferred Houses (modified from Finlayson 1985, 173)



These data suggest that clan segments with a population of less than 168 individuals had one chief's house, perhaps that of a civil chief. Clan segments with a population of more than 216 individuals always have two chiefs' houses, one for the civil chief and the other for the war chief (Finlayson 1985, 416).

For the entire village, the area per person was remarkably consistent. Before alterations to houses, the area per person averaged about 6.0 sq m per person (*ibid.*, 415). Data on estimated population correlated with clan segments and chiefs' houses is presented in Table 2.4. As previously mentioned it is noted that population estimates were based on the number of recorded and inferred hearth floors in each house. To recap, this involved multiplying the total number of estimated hearths by two and using six people per family, one estimate from the ethnohistorical documents for the historic Huron-Wendat (e.g., Heidenreich 1971, 116, 117). By way of comparison, James V. Wright, in his estimates of population for the Nodwell site used eight people per hearth (1974, 18). Birch and Williamson used the "average value of roofed floor space per person in multifamily dwelling is 6 m² (Casselberry 1974)" (2015, 77) to

generate population estimates of 1730 and 1338 for the Early and Late Phases of the occupation of the Mantle site (*ibid.*, 78). Unfortunately, details are not tabulated for these calculations which make them difficult to assess. Accordingly, for this study we will continue to use the above procedure using an average of six people per family.

Table 2.4. Data on Estimated Population Correlated with Hypothesized Clan Segments and Chiefs' Houses (from Finlayson 1985, 415)

| Village Segment | Orientation Group | Houses Numbers | Number of Longhouses of Group 2 | Minimum Estimated Population |
|-----------------|-------------------|-----------------------|---------------------------------|------------------------------|
| A | 1 | 4, 6, 12, 29 | 2 | 228 |
| | 2 | 9, 10, 11 | 1 | 168 |
| B | 1, 3 | 16, 18–21, 30 | 2 | 216 |
| C | 1, 2 | 1, 3, 15 | 1 | 168 |
| D | 1, 3 | 7, 8, 25, 38, 41 | 2 | 324 |
| E | 1 | 5, 13 | 1 | 120 |
| | 2 | 2, 14, 17, 26, 27, 31 | 2 | 288 |
| F | 2 | 43, 45 | 1 | 108 |
| | 3 | 28, 35 | 7 | 108 |

2.10.2.2 THE MAIN VILLAGE SPECIAL STRUCTURES

Two dwellings were interpreted as structures used to house visitors to the village. One was a rectanguloid structure attached to the northwestern palisades of the original Core Village. The other was a small structure (House 22) which I recently discovered intersected the palisades surrounding Segment E. This indicates that this structure related to Segment F, which was the final expansion of the village and similar to the Core Village palisades, was comprised of four rows of palisades directly adjacent to the palisades southwest of House 5. This similarity implies that when the village had four rows of palisades, suggesting increased warfare, there was a need for special structures inside the village to house visitors without letting them gain access to and knowledge of the layout of the entire village, something not seen in Expansions 1–4 of the village. It is suggested that Structure 42, located 80 m east of the village, served that function during the occupation of those expansions.

2.10.2.3 THE MAIN VILLAGE PALISADES

Palisades at the Draper site were made up of three or four rows of post moulds which ranged from about 0.5 to 1.9 m apart (Finlayson 1985, 397).

The most important aspect of the palisades is that there were four rows of palisades around the Core Village (Segment A), three rows of palisades around the first four expansions (Segments B, C, D, and E), and again four rows around Segment F. This reverting back to four rows of palisades suggests either that three rows were not adequate or that there were increased attacks or threats thereof.

Estimates suggest that 15,710 poles would have been required to construct all palisades from new poles or 8,370 if poles from dismantled palisades were reused (Finlayson 1985, 398).

In places, there were gaps in the palisades indicative of entrances. In other places, on the inside of the palisades, were short rows of post moulds which are evidence of catwalks. Historical evidence indicates that these stored pots of water to put out fires and rocks to hurl down on attackers (Heidenreich 1971, 139).

2.10.2.4 THE SOUTH FIELD

During the 1975 field season it became apparent that the Draper site extended south onto the adjoining former Villari property. To begin to investigate the extent of the site on this property, we excavated one test trench and 21 test pits. This revealed the presence of a single house structure (#33) and we also discovered that the site extended to the south of the railway tracks.

To further explore the nature and scope of the site in this area, we had the farm field cultivated as part of the 1976 archaeological survey of the 18,500 acres of land expropriated for airport construction. This resulted in the recovery of artifacts concentrated in an area of about 16,000 sq m (Figure 2.2).

In 1978 additional test trenches revealed the presence of seven longhouses, two of which overlapped and a row of post moulds 74 m long (Figure 2.9). In a later section of this study we will discuss the issue of whether this might represent an Algonquian seasonally occupied settlement contemporary with the Main Village in a manner similar to that recorded historically for the Huron-Wendat and the Northern Algonquians.

2.10.2.5 THE SOUTH FIELD FENCE

Separating the cluster of seven houses in this part of the site was a row of post moulds 74 m long. It was suggested that this was a palisade that was never completed or

perhaps a windbreak. Alternatively, it may have served as a barrier separating the South Field houses from the Main Village.

2.10.2.6 THE SOUTH FIELD MIDDENS

Only two middens were found in the South Field, both located in the fencerow adjacent to the railway. We excavated a total of 50 1 x 1 m squares in Midden 75 and 23 2.5 x 2.5 m quadrants of 5-metre squares in Midden 80/81.

2.10.2.7 THE SOUTH FIELD HOUSES

The seven longhouses, two of which were overlapping houses were found in the South Field. It is important to note that houses in the South Field had been disturbed by decades of farming with the result that there were no undisturbed living floor deposits like those found in the Main Village and no evidence of hearth floors.

In order to increase the artifact sample from these houses we excavated 215 2.5 x 2.5 m quadrants of 5-metre squares in each house as follows: 33-33, 36-48, 37-21, 39-67, 40-38, and 44/47-8. An examination of the artifacts recovered from these plough zone deposits should provide further information on the occupation of these houses and the productivity/usefulness of excavating such deposits.

In my 1986 publication I noted the following similarities to houses in the Main Village:

- multiple orientation of houses;
- the placement of houses to create central plazas;
- preference for houses with cigar-shaped ends (see Finlayson 1985, 130 for the four end shapes of houses);
- construction of sweat baths in the central corridors of some houses; and
- the digging of large pits in some houses (Finlayson 1985; 474, 481).

To this I would now add the presence of a burial in one house.

I also noted the following differences:

- the smaller site area;
- an atypical general site location;
- a preference for smaller houses;
- a much greater distance between houses;
- smaller estimated population;
- the lack of use of houses for defensive purposes;
- house walls are, in most instances, characterized by an erratic placement of posts;

- the use of slightly smaller posts for construction of house walls;
- well defined patterns of bench support posts;
- preference for pits with circular plan shapes; and
- tendency for pits to be located on the edges of the central corridors (ibid., 481).

I concluded that “these differences suggest that the Draper South Field represents a settlement which was functionally and/or temporally different than the Main Village” (ibid.). I felt this was the only viable alternative since the analysis of the rim sherds had not been completed in an acceptable fashion. In addition, my intent was to focus on settlement pattern data to provide a set of interpretations about the village based on that data which could ultimately be further explored when the balance of the artifact analyses was completed. Further insights into the relationship of the South Field to the Main Village will be presented later in this study.

2.10.2.8 STRUCTURE 42

At the same time as the farm field on the Villari property to the south of the Draper farm was cultivated, the field to the west of the Draper site was also cultivated and subject to a controlled surface survey. This revealed a scatter of artifacts about 60 m to the west of the Main Village (Figure 2.2).

In 1978 a series of 49 2.5 m x 2.5 m squares were excavated over this scatter (Figure 2.2).

As part of the present study I reviewed the catalogue to determine what artifacts were recovered from the plough soil around this structure. This revealed that 32 pipe fragments and 10 rim sherds were found, while Von Gernet reports the presence of 17 pipe fragments in his study (Von Gernet 1985, 39). While the difference in the number of pipes will have to be resolved through further investigation, the very high ratio of pipes to rim sherds needs to be explained. It is hypothesized that this was a structure to house visitors to the village and that sharing smoking pipes would have been part of the ritual welcoming visitors to the village. The house in this location would have prevented visitors to the village from learning the layout of houses within the village in a manner suggested previously for the two special structures within the village.

A complete study of all artifacts recovered from this structure needs to be undertaken. This should involve an assessment of the effectiveness of screening plough zone to recover artifacts from sites subject to decades of farming activities.

2.10.2.9 SMALL SITE NORTH OF DRAPER

In 2003, while working on an archaeological master plan for the Greater Toronto Airports Authority, which was creating new plans for a Pickering Airport, I found that Dana Poulton had discovered a small site about 150 m northwest of Draper. This happened while he was searching for the Whitton Ossuary documented by Andrew Hunter's notebook (n.d.).

Poulton called this the New site, about 150 m northwest of Draper. Artifacts on the surface of the site included "a plain body sherd, a utilized flake and several pieces of chipping detritus, all in an area about 15 m in diameter" (Letter from Poulton to D. Gray, GTAA, June 24, 2005). No artifacts were collected from the site (This Land Archaeology 2006, 49). One wonders if this might be a house structure similar to Structure 42.

2.10.3 The Expansions of the Draper Site—The Original Interpretation

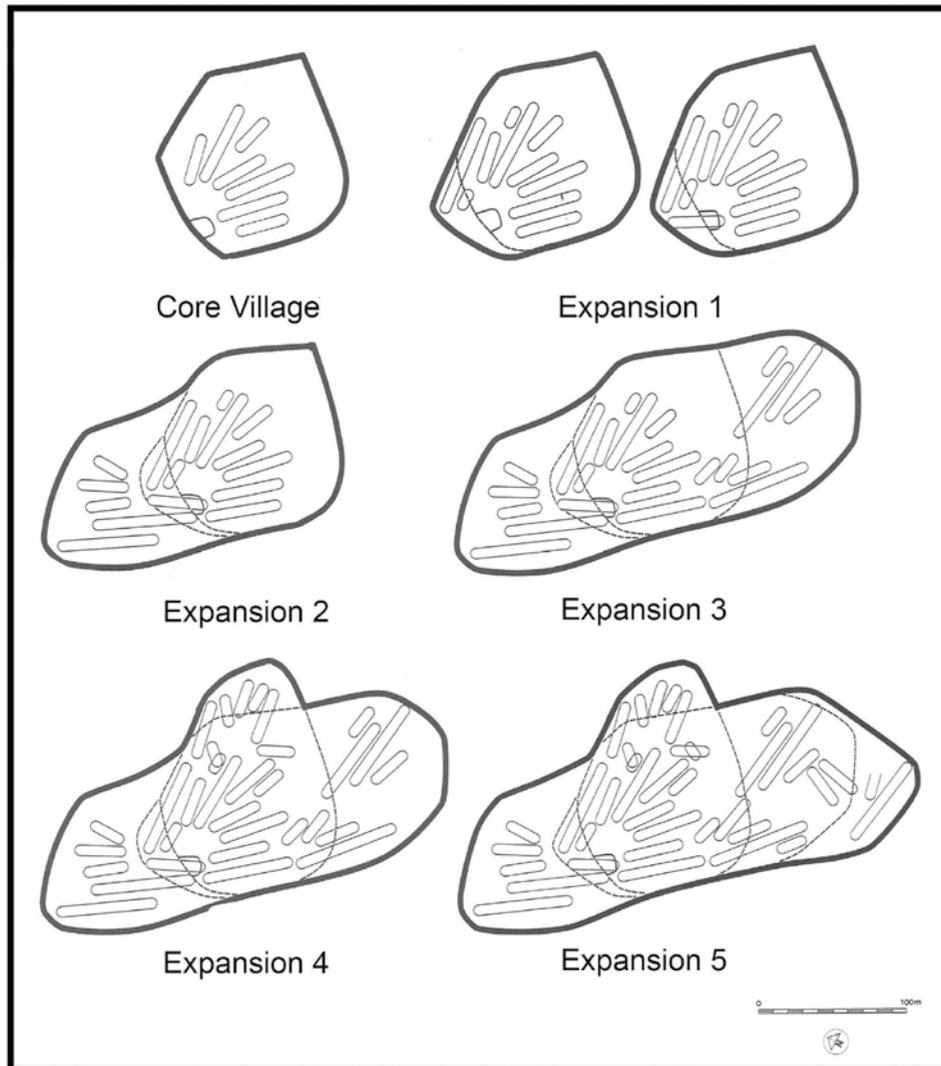
The 1975 and 1978 excavations of the site revealed that there were eight different parts of the Draper site. The majority of the site is the Main Village which is comprised of six segments totaling 34 longhouses, three short longhouses, two inferred longhouses, and two special structures. Fifty m to the south of the Main Village is the South Field comprised of seven longhouses and 60 m to the west of the Main Village is a single structure (#42).

In my 1985 study of settlement patterns I proposed an interpretation on the sequence of expansions of the Draper Main Village. This was based on settlement data including densities of wall post moulds, pits, sweat baths, etc. It did not include a consideration of artifact data. This interpretation is summarized in Figure 2.12 and details are presented in Appendix C. An alternative interpretation will be presented after the review of all other studies of the Draper site artifacts and other data.

2.10.4 The South Field

Fifty m south of the Main Village we discovered a cluster of seven longhouses. A single row of posts, perhaps representing a fence, was found along the north edge of these houses. Unlike houses in the Main Village, these were widely spaced and showed no evidence of defensive considerations in their placement but did create a large plaza to which access was not restricted.

Based on these differences I suggested that the South Field represented a hamlet or satellite village, a settlement that was different than the Draper village.

Figure 2.12: Original Expansions of the Draper Site (after Finlayson 1985)

2.10.5 Structure 42

A single small house structure was discovered about 80 m southwest of the Main Village. At the time of writing my 1985 volume on Draper Site Settlement Patterns, no function was attributed to this structure.

2.10.6 The Whitton Ossuary, Human Burials, and Human Bone Fragments

2.10.6.1 THE WHITTON OSSUARY

Research conducted by my CRM firm, This Land Archaeology Inc., in the preparation of an Archaeological Master Plan for the Pickering Airport Lands (TLA 2006a, 27) discovered that Andrew Hunter's notebook *Archaeological Sites for Ontario County* records Ontario County (n.d.) Site 13 as a "Village site and large ossuary, lot 29, con 7, Pickering." He reported that no artifacts were found in the ossuary which had been discovered in 1871 on a farm that had been owned by Mr. Spears and was then owned by Mr. Whitton. While not exactly clear, it appears that the ossuary was adjacent to the embankment of West Duffin Creek.

D.R. Poulton Associates obtained a small contract from the Public Works Canada in 1997 to attempt to locate the Whitton ossuary.

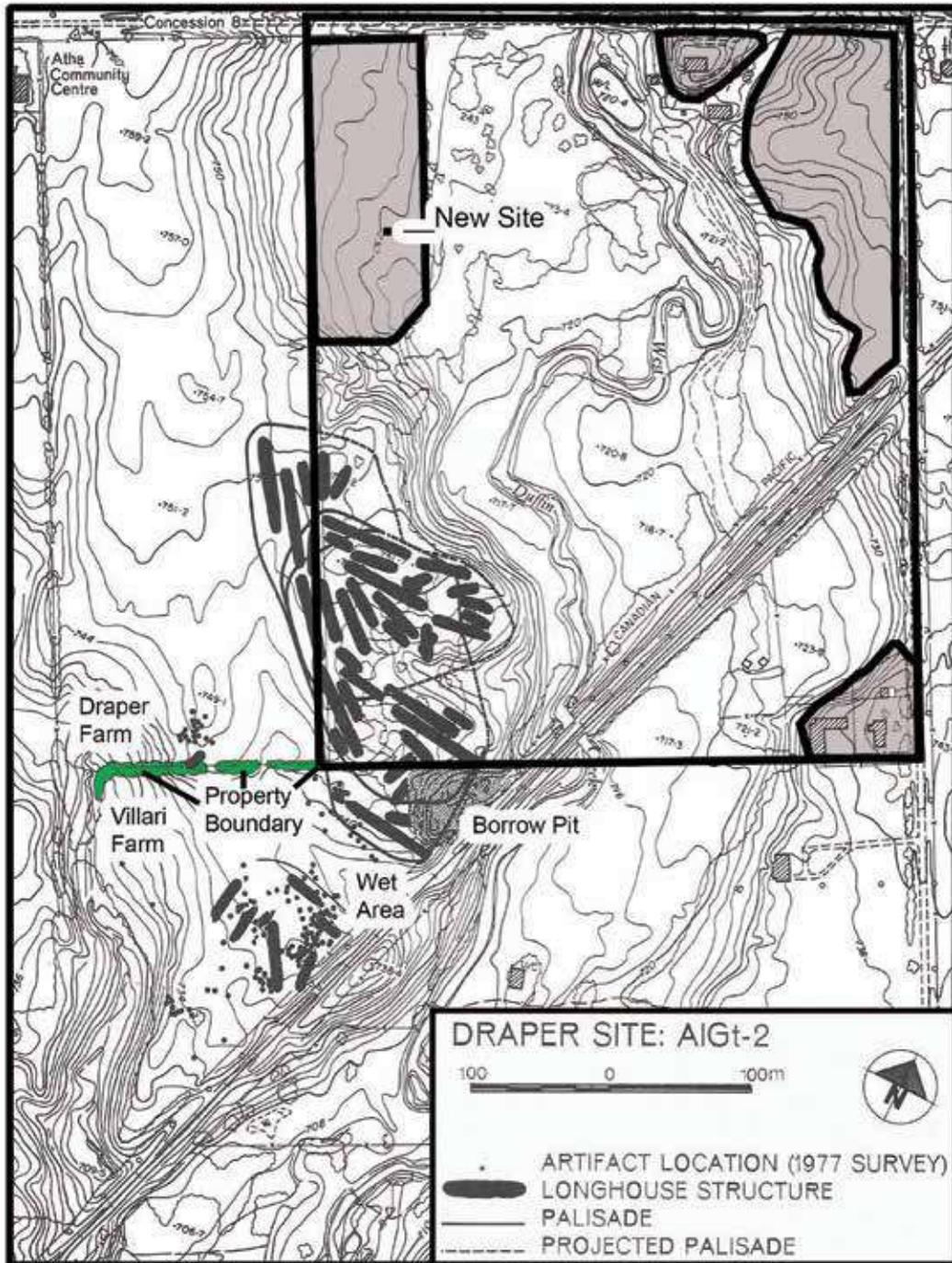
A small field north of the Draper site was subject to surface examination and a small site was found (Figure 2.13). The Old Corn Field at the northeast corner of the lot was not suitable for examination and the Bannock and McKay residences were noted as other possible locations which would have to be test pitted. Poulton named the ossuary after Whitton, the owner of the land at the time of Hunter's report.

2.10.6.2 HUMAN BURIALS

A total of 13 burials were found during the 1975 and 1978 salvage excavations at the Draper site. An additional two burials had been discovered during the 1973 excavations of House 2 directed by Brian Hayden (Kapches 1979). All burials were found within longhouses. Initial reports on the 1975 excavations were prepared by Williamson (1978 b, c, d). A comprehensive study of these burials has been completed and published by Forrest (2005, 2010).

Basic information on the burials is summarized in Table 2.5 and taken from Forrest (2010). A map of the distribution of burials within the Draper site is presented as Figure 2.14, again based on Forrest (*ibid.*, Figure 2). Detailed location of burials within houses can be found in Finlayson 1985 and Hayden 1979.

Figure 2.13: Location of New Site and Possible Locations of Whitton Ossuary



**Table 2.5. Data on Human Burials from the Draper Site
(after Forrest 2010)**

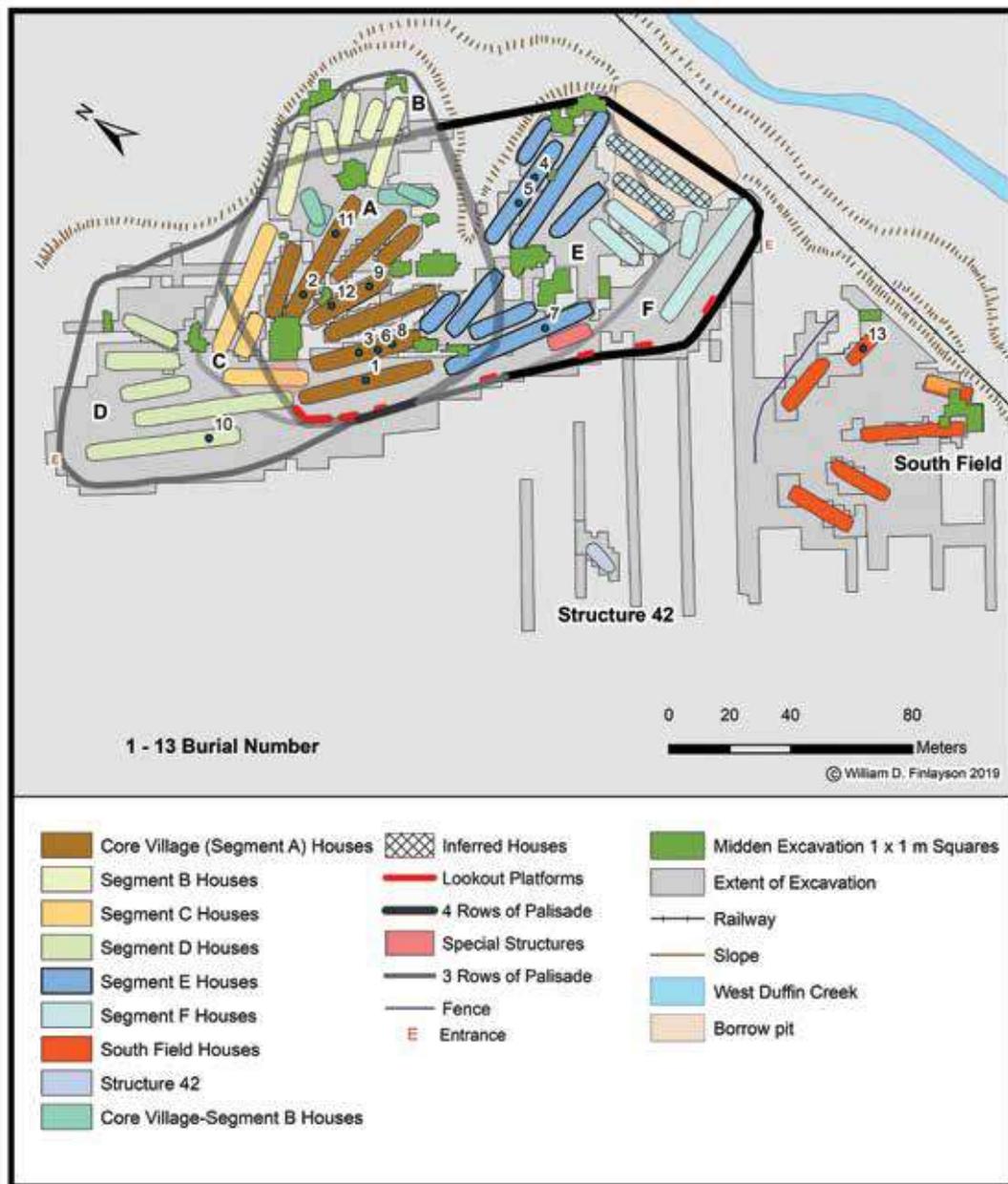
| Burial | House | Age | Sex | Sex | Position |
|--------|-------|------------------------|-----|-----------|---------------------|
| 1 | 4 | 6–12 months old | - | Primary | Loosely flexed |
| 2 | 10 | 25–34 years old | F | Primary | Flexed |
| 3 | 6 | 3–5 years old | - | Primary | Flexed |
| 4 | 2 | birth +/- 2 months old | - | Primary | Flexed |
| 5 | 2 | birth +/- 2 months old | - | Primary | Extended |
| 6 | 6 | 50–60 years old | M | Secondary | Bundle |
| 7 | 5 | 12 months old | - | Secondary | Flexed |
| 8 | 6 | birth +/- 2 months old | - | Primary | Flexed |
| 9 | 29 | 3 years old | - | Primary | Extended |
| 10 | 25 | 3 years old | - | Primary | Flexed |
| 11a | 10 | birth +/- 1 month old | - | Secondary | Commingled with 11b |
| 11b | 10 | 1–3 years old | - | Secondary | Commingled with 11a |
| 12 | 29 | 3 years old | - | Primary | Flexed |
| 13 | 37 | birth +/- 2 months old | - | Primary | Flexed |
| 14 | 19 | 15 years old | - | Primary | Flexed |

This summary is based on Forrest (2010) and focuses on the Draper burials. For comparisons to other Iroquoian sites the reader is directed to Forrest (ibid.).

The burials recovered from Draper represent individuals not buried in the ossuary but interred within longhouses.

Of interest is the large number of infants found in longhouses and therefore excluded from ossuary burial. As Forrest notes, “Kapches (1976) has suggested that the longhouse, being a well-trafficked area much like walking paths associated with settlements may have been deemed suitable for infant interment so that, following the Huron-Wendat belief recorded in the *Jesuit Relations*, their souls could be reincarnated in women walking by” (ibid., 113).

Figure 2.14: Location of Burials at the Draper Site



Burial 2 of a female 25–34 years of age is interesting in that “rocks were placed upon her arms, pelvic region and around the skull, to perhaps either keep the flexed position or to maintain her soul *in situ*” (Williamson 1978, 117). There is no evidence to suggest why this individual was not interred in the ossuary associated with the village.

Williamson describes Burial 6 as a bundle burial of an individual 50–60 years old (1978, 119). He notes:

It appears this individual was shot from behind in the leg, speared in the chest when prone, scalped, dismembered to remove his arms and defleshed. There was no bone growth surrounding the chert point tip embedded in the right posterior femoral neck. The individual was likely caught close to his village, and was scalped, speared and dismembered after having been shot in the leg. Osteological evidence suggests that he couldn't have been moving too quickly due to osteoarthritis and probably spinal tuberculosis which had resulted in the fusion of three lumbar vertebrae. Perhaps, upon discovery by his own people, he was de-fleshed and given the neat bundle burial within House 6 ... Should (sic) this individual have been a captive and subject to torture, his bones would have been most certainly scattered throughout the village middens (Trigger 1969, 104) (Williamson 1978, 119).

Clearly, the violent death of this individual prevented his burial in the ossuary.

Forrest (2010) also records in detail distinguishing features or pathological conditions of the bones of these burials. Forrest concludes her study with very useful discussions of: Infants and Young Children, The Elderly-1; Individuals Who Died Violently, Individuals Who Were Chronically Ill; and Twins. The reader is referred to Forrest's article for more details.

2.10.6.3 HUMAN BONE FRAGMENTS

A study of the 377 human bone fragments recovered from the 1975 excavations at the Draper site was undertaken by Martin Cooper (1978). He noted that:

Approximately 76% of this bone was found in middens and mainly in middens 52, 54, 55, 56 and 66. Except for midden 66, these are the largest middens, and appear to be located in central areas of the site...Also, note that houses 3, 4, 6, 15, 9, 10, 11, 29, 12, 26 and perhaps 5, where bone fragments were recovered, are centralized, to the exclusion of house groups 7, 8, 25, 31, 2, 17, 14, 28, or 16,17, 20, 21, 21, where no bone fragments were recovered. There may be several explanations. First, the central area being the core area would naturally have most of these bone fragments, having been used

the entire duration of the village span. Perhaps, also, the core area is populated by stashed individuals who are given prisoners to torture and/or distribute. Trigger (1969:49) has noted that normally, prisoners were only made available to leading village families. It may also be that torture is only conducted in this core area (Cooper 1978, 74).

Cooper also notes:

Of 377 pieces of bone, 244 (64.9%) were skull pieces although it should be remembered that of that 244, 35 were teeth of which three were modified. Fifty-five pieces (14.6%) were limb fragments and 40 pieces (10.6%) were extremity fragments. The rest of the material consisted of axial, postcranial or indeterminate fragments (ibid., 74, 77).

Data on aging revealed only 45.9% of the bone could be aged: 0.5% were identified as old adult, 31.8% as adult, 6.4% as sub-adult, and 7.2% as infant (ibid., 77).

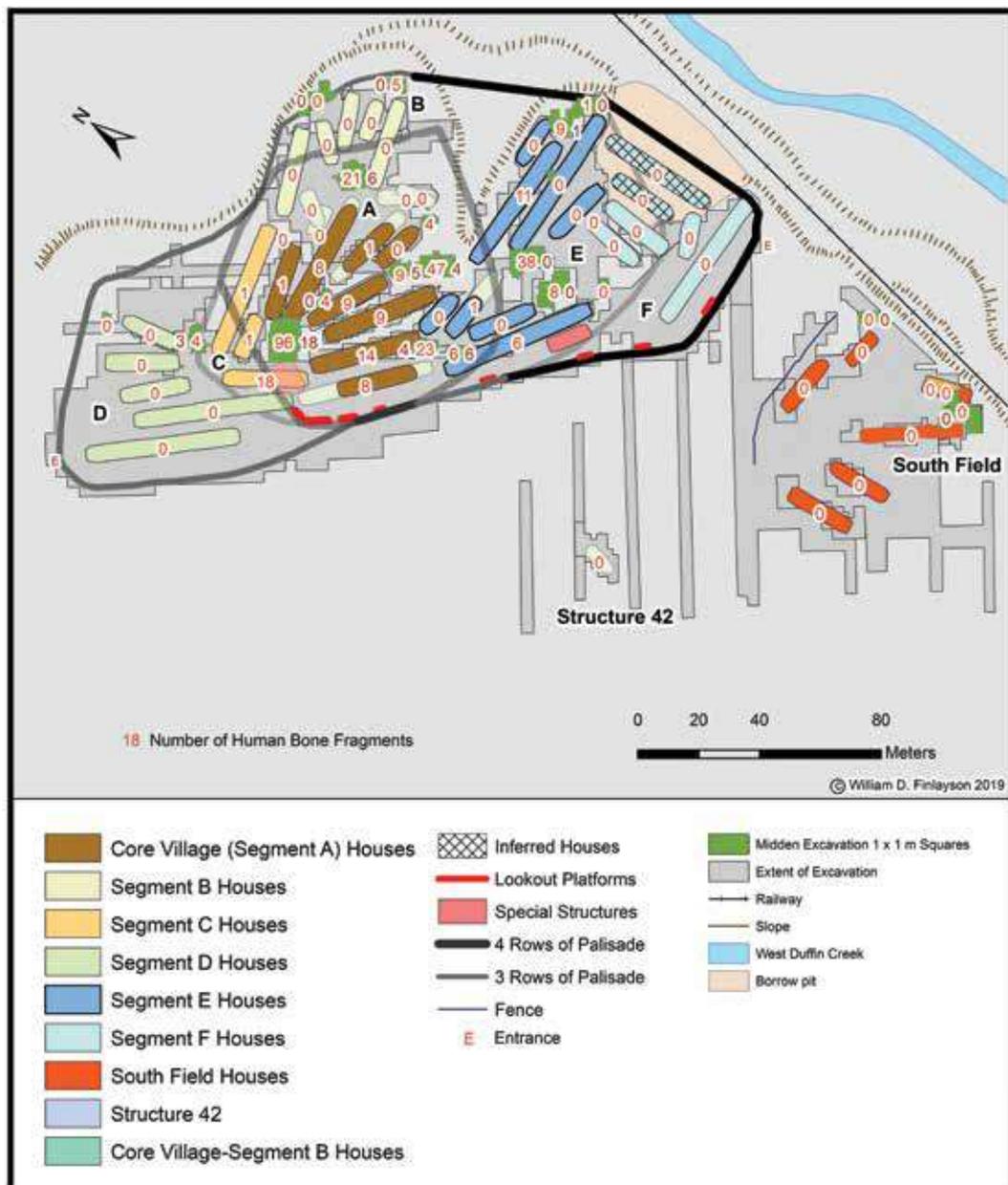
The extremely fragmentary nature of the bone combined with evidence of butchering and firing, point to extensive ritual activity culminating in these remains. Of the 244 pieces of skull, 182 were untouched, 53 were charred, and 9 were calcined...Similarly, of the 62 limb fragments 47 were untouched while 13 were charred and 2 were calcined...Of 35 teeth, one was charred and two were calcined. Only 2 of the 14 axial fragments were charred (ibid., 77).

Cooper states:

In summary, it appears 5.6% of the sample was found while shoveling, 10.9% from features and 82.5% from middens. The central houses contained most of the house bone sample and most of the total sample was found in Middens 52, 54, 55, 56, and 66 all central core area middens. There is evidence of ritual activity basically in the adult samples, again mostly from middens. Some of the skull and limb fragments exhibit evidence of chewing by canines...there is certainly evidence from fired and butchered remains to suggest that human ritualism was occurring at the site (ibid., 79-80).

A map showing the distribution of the human bone fragments (excluding six pieces from Midden 60) is presented as Figure 2.15. This includes the bone from the 1972 and 1973 excavations of the site. It does not include the 15 pieces of human bone recovered by Ramsden from his excavations since no provenience are provided for these (1968, 119).

Figure 2.15: Distribution of Human Bone Fragments at the Draper site



Three of the pieces of parietal described by Ramsden had one edge “sharpened by beveling and grinding” (ibid.) while a fourth had evidence suggestive of “a healing scalping wound” (ibid.). A fragment of a frontal bone exhibits burning after the bone had fragmented. Two other pieces, one an occipital and one a parietal showed evidence of cutting or sawing (ibid., 119, 120). A fragment of a juvenile parietal exhibited evidence suggesting a blow to the skull (ibid., 120). One of the small skull fragments also had an edge which had been ground and bevelled. The final three bones included a child’s mandible and a metacarpal and a phalanx (ibid.).

Cooper also used the human bone fragments from Draper in his study *An Analysis of Scattered Human Bone from Ontario Iroquoian Sites* (1984).

2.10.7 Artifact Analyses

The 1975 and 1978 rescue excavations at the Draper Site resulted in the recovery of 171,104 artifacts and 1,286,556 g of fragmentary sherds, chipping detritus, faunal, and floral remains (Table 2.2).

This section summarizes some of the most important aspects of the various analyses some of which have been published, some are graduate theses, and others are unpublished reports or manuscripts.

This section of the report will involve:

- a review of the description and analyses of the various categories of artifacts and data recovered from the excavations;
- a summary of specialty studies, notably soil studies and sampling studies undertaken by myself and Professor David Bellhouse in the Department of Statistics and Actuarial Studies at The University of Western Ontario and detailed studies of two longhouses completely excavated in 1 x 1 m squares by Angele Smith (1990);
- a summary of three studies, one by Mima Kapches of the Royal Ontario Museum, one by Kimberly Williams-Shuker, and another by Bruce Trigger and his colleagues who used the data from Draper to pursue their own research interests. These studies are the kinds of which I hoped would be undertaken using the large quantities of descriptive data we generated for Draper;
- a review of the work we did in excavating undisturbed deposits within and adjacent to longhouses to emphasize the availability of significant distributional data which remains to be studied;

- a preliminary statement of my thoughts on the significance of the descriptive studies which noted the presence of relatively large numbers of complete artifacts discarded in middens and their possible implications for integrating the newcomers to the village; and
- a summary of our attempts to popularize the Draper site investigations.

2.10.7.1 RIM SHERD STUDIES

As is often the case in Iroquoian studies, the major focus is the description, analysis, and interpretation of the collection of rim sherds. This was certainly the case for the collections from the Draper site. In anticipation of this, Peter Ramsden, who was co-director of the 1975 excavations and I devised a computer-based code to allow the analysis of the Draper Site rim sherds based on his study of the 8,245 rim sherds from 28 Huron-Wendat sites for his Ph.D. dissertation and my study of the Saugeen culture rim sherds for my Ph.D. using the Statistical Package for the Social Sciences. Ramsden also oversaw the coding of the rim sherds. By December 1977, a master file with descriptive data on the 10,902 collared rim sherds had been created and checked for errors.

The description, analysis, interpretation, and preparation of the report on these rim sherds was undertaken by Bob Pearce at the Museum of Indian Archaeology at The University of Western Ontario. This report was published as *Research Report 1* of the Museum (1978a). Pearce provided descriptive data on the up to 74 variables which could be recorded for each rim sherd and his report remains one of the most detailed reports ever published on the description and analysis of a collection of a very large sample of rim sherds from any Iroquoian site.

A summary of the numbers of rim sherds from houses and middens studied by Pearce is presented in Table 2.6. Pearce presented data on 29 of the most significant attributes in Tables 2 to 31 (*ibid.*).

There are a number of significant observations made by Pearce which have noteworthy implications for our understanding of how rim sherd data can be used to explore the occupation of Ontario Woodland Tradition sites in southern Ontario. Pearce compared the results of Ramsden's previous study of 881 rim sherds from Draper which were derived from the test excavation of a number of middens, most of which were located in the Core Village, with his study of the 10,902 collared rim sherds from Draper recovered from 18 middens and 27 longhouses (Table 2.7).

**Table 2.6. Number of Analyzable Collared Rims
Per Provenience Unit for 1975 Excavations
(from Pearce 1985, 10)**

| House | No. | % | House | No. | % | House | No. | % |
|------------------------------------|-----|-----|-------|-----|-----|---------------|--------------|------|
| 1 | 25 | 0.2 | 18 | 0 | | 51 | 299 | 2.7 |
| 2 | 7 | 0.1 | 19 | 4 | 0.0 | 52 | 2,211 | 20.3 |
| 3 | 28 | 0.3 | 20 | 0 | | 53 | 412 | 3.8 |
| 4 | 43 | 0.4 | 21 | 11 | 0.1 | 54 | 824 | 7.6 |
| 5 | 290 | 2.7 | 22 | 0 | | 55 | 1,091 | 10.0 |
| 6 | 188 | 1.7 | 23 | 5 | 0.0 | 56 | 1,162 | 10.7 |
| 7 | 22 | 0.2 | 24 | 39 | 0.4 | 57 | 133 | 1.2 |
| 8 | 35 | 0.3 | 25 | 23 | 0.2 | 58 | 8 | 0.1 |
| 9 | 229 | 2.1 | 26 | 21 | 0.2 | 59 | 184 | 1.7 |
| 10 | 248 | 2.3 | 27 | 4 | 0.0 | 60 | 117 | 1.1 |
| 11 | 286 | 2.6 | 28 | 7 | 0.1 | 62 | 275 | 2.5 |
| 12 | 455 | 4.2 | 29 | 27 | 0.2 | 64 | 471 | 4.3 |
| 13 | 9 | 0.1 | 30 | 6 | 0.1 | 65 | 187 | 1.7 |
| 14 | 12 | 0.1 | 31 | 0 | | 66 | 487 | 4.5 |
| 15 | 36 | 0.3 | 32 | 0 | | 67 | 491 | 4.5 |
| 16 | 2 | 0.0 | 33 | 0 | | 68 | 18 | 0.2 |
| 17 | 11 | 0.1 | | | | 69 | 142 | 1.3 |
| | | | | | | 70 | 48 | 0.4 |
| | | | | | | 71 | 14 | 0.0 |
| Number of rims from all houses | | | | | | 2,073 | 19.0 | |
| Number of rims from all middens | | | | | | 8,574 | 78.7 | |
| Number of rims with no provenience | | | | | | 255 | 2.3 | |
| Total | | | | | | 10,902 | 100.0 | |

Pearce concluded that even large samples such as Ramsden's are not representative of the samples from total or almost total excavation of such sites and notes that the variation of 0.1% to 18.2% (Mean=4.0) when comparing the two samples (Pearce 1985, 49).

**Table 2.7. Comparison of 1968 and 1975 Draper Rim Sherd Attribute Frequencies (Percent)
(from Pearce 1978, 44,45)**

| Attribute | 1968 | 1975 | Difference |
|---------------------------------|-------------|-------------|-------------------|
| Total Number of Analyzable Rims | 881 | 10,902 | 10,021 |
| Collar Motif: | % | % | % |
| Simple | 52.6 | 56.8 | 4.2 |
| Opposed | 6.1 | 5.0 | 1.1 |
| Crossed | 11.8 | 9.5 | 2.3 |
| Hatched | 13.8 | 15.9 | 2.1 |
| Horizontal | 4.6 | 3.4 | 1.2 |
| Complex | 7.6 | 3.0 | 4.6 |
| Plain | 1.7 | 5.4 | 3.7 |
| Interrupted | 0.5 | 0.6 | 0.1 |
| Other | 2.2 | 0.4 | 1.8 |
| Collar Technique: | % | % | % |
| Incised | 98.2 | 84.1 | 14.1 |
| Total Stamped | 1.0 | 11.4 | 10.4 |
| Mixed (Incised and Stamped) | 0.7 | 3.8 | 3.1 |
| Others | 0.1 | 0.7 | 0.6 |
| Neck Decoration: | % | % | % |
| % Decorated | 56.0 | 52.8 | 3.2 |
| Horizontal | 43.4 | 47.1 | 3.7 |
| Horizontal/? | | 1.7 | 1.7 |
| Horizontal/Oblique | 13.3 | 5.5 | 7.8 |
| Horizontal/Opposed | 5.3 | 2.7 | 2.6 |
| Oblique | 19.1 | 24.7 | 5.6 |

| | | | |
|-------------------------------------|------|------|------|
| Opposed | 18.7 | 17.4 | 1.3 |
| Other | | 0.9 | 0.9 |
| % Interior Decoration | 6.6 | 4.8 | 1.8 |
| % Lip Decoration | 33.9 | 25.5 | 6.4 |
| Sub-Collar Decoration | 4.8 | 5.8 | 1.0 |
| Secondary Collar: | % | % | % |
| Frontal Lip | 2.0 | 3.1 | 1.1 |
| Upper Punctates | 4.4 | 1.8 | 2.6 |
| Lower Punctates | 1.4 | 0.6 | 0.8 |
| Dividing Punctates | 0.8 | 0.9 | 0.1 |
| Basal Punctates | 6.2 | 4.8 | 1.4 |
| Interior Profile: | % | % | % |
| Convex | 50.2 | 51.9 | 1.7 |
| Concave | 23.6 | 21.8 | 1.8 |
| Straight | 4.7 | 22.9 | 18.2 |
| Concave-Convex | 17.4 | 2.4 | 15.0 |
| Convex-Concave | 3.8 | 1.0 | 2.8 |
| Exterior Profile: | % | % | % |
| Convex | 17.0 | 17.6 | 0.6 |
| Concave | 51.0 | 59.4 | 8.4 |
| Straight | 31.8 | 23.0 | 8.8 |
| % High Collars (Greater than 30 mm) | 10.0 | 5.5 | 4.5 |

These differences would seriously affect the overall interpretation of the site in terms of chronological placement within the Ontario Woodland Tradition sequence and in terms of placement within a regional series of sites. In addition, statements regarding the social relationships of sites in a regional sequence based on the interpretation of attributes are affected (*ibid.*).

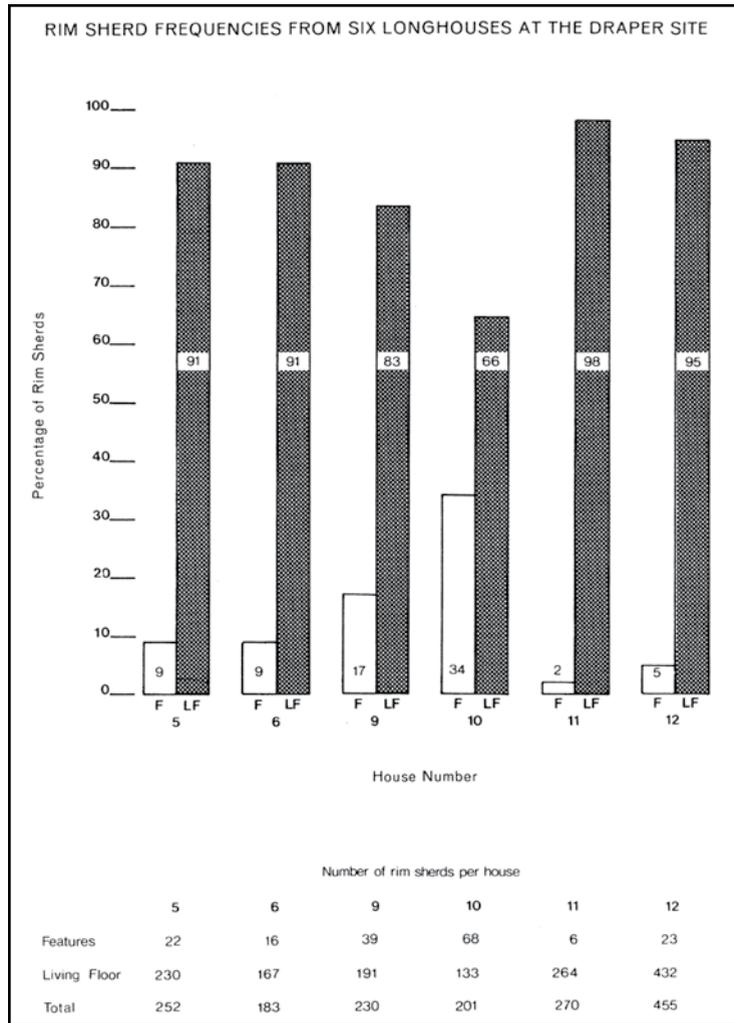
These very important observations have been ignored by those who espouse the ability to interpret the Iroquoian occupations of south-central and beyond based on

limited samples of rim sherds. In my own research on the Iroquoian occupation in the Crawford Lake area, comparison of two undisturbed middens at the Middleport Rife site and two undisturbed middens at the Middleport Winking Bull site suggested that excavation of one midden on these sites would have provided representative samples of artifacts for comparative purposes (Finlayson 1998b, 221, 601, 271, 655). Whether similar results would be obtained from later sites remains unknown. It is useful, however, to remember that a somewhat similar issue was addressed by Norman Emerson in his discussion regarding the similarities and differences in the analysis of two samples from the Payne/MacDonald site excavated by James F. Pendergast and Emerson, a fact unknown to each other until their reports were submitted for publication (Emerson 1968, 81–83). I would suggest, however, that the results of such studies on earlier Middleport sites such as Rife and Winking Bull and somewhat later sites such as the Late Ontario Iroquois Payne site may be very different from Realignment sites such as Spang and Mantle as has been demonstrated by Pearce (1975) and summarized previously. In one of the very few published studies of quantitative data from Iroquoian sites on Duffin Creek and Humber River sites Birch et al. (2016) ignore this matter despite the fact that the artifact samples were obtained from different parts of these middens. For example, excavations were conducted in two nearby middens at the Spang site, yet there was no attempt to compare the samples from these middens. Similarly, two middens were excavated at the Pugh site and there was no consideration of inter-midden similarities or differences which might affect comparisons for chronological ordering of the sites being considered by Birch et al. Until such studies are undertaken any chronological ordering of these sites must be considered to be of a very preliminary nature. As noted previously, Joyce Wright (2006) wrote that the homogeneity in decorations applied to Wendat pottery in the 15th and 16th centuries, something not found in later sites.

Finlayson and Pearce (1978) also investigated the six Draper houses with major excavations of living floor deposits. Of particular interest was the fact that most of the rim sherds from these houses came from the living floors and relatively few from pits under the floors (Figure 2.16). For these six houses, 89.3% of rim sherds came from the living floors and only 10.7% from pits under the living floor. This raises the question about the use of samples of rim sherds from pits in longhouses as the basis for comparisons between houses and between sites where only relatively small samples are from pits in longhouses and are available for comparative purposes. Instructive is Joyce M. Wright's inter-house study of rim sherds at Nodwell where, as noted, a sample of 50+/- vessels were needed for comparative purposes (1999, 47ff.). For the Middleport

Rife site, comparative data were only available for one undisturbed house at the Rife site and the comparison of its rim sherd samples to samples from two undisturbed middens revealed that the house sample was representative of that from the completely excavated undisturbed midden at this site.

Figure 2.16: Frequencies of Rim Sherds from Six Houses at the Draper Site (from Finlayson and Pearce 1978, 9)



Pearce presented additional data which challenge our ability to make intra- and inter-site comparisons of Ontario Woodland Tradition sites in Ontario. Of considerable importance was Pearce's comparison of the relatively large samples of rim sherds recovered from large scale excavations of living floors of houses at Draper. His table, presented as Table 2.8, documents the variability of the occurrence of nine attributes from these six houses, five of which are located in the Core Village.

Table 2.8. Comparison of Rim Sherd and Vessel Attribute Frequencies for Six Draper Longhouses (from Pearce 1978, 57, 58)

| House Number | 5 | | | 6 | | | 9 | | | 10 | | | 11 | | | 12 | | |
|--------------------------------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| | Rims | Vess. | Diff. |
| Number of Rims or Vessels | 291 | 259 | 32 | 188 | 167 | 21 | 230 | 197 | 33 | 248 | 220 | 28 | 287 | 258 | 29 | 455 | 398 | 57 |
| 1) Collar Motif | | | | | | | | | | | | | | | | | | |
| a) Simple | 53.6 | 52.9 | 0.7 | 59.0 | 59.3 | 0.3 | 56.5 | 57.9 | 1.4 | 64.1 | 62.7 | 1.4 | 61.0 | 62.4 | 1.4 | 56.5 | 56.5 | 0.0 |
| b) Opposed | 7.6 | 8.5 | 0.9 | 4.8 | 5.4 | 0.6 | 4.8 | 5.1 | 0.3 | 8.5 | 9.1 | 0.6 | 7.0 | 6.6 | 0.4 | 6.8 | 6.5 | 0.3 |
| c) Crossed | 7.2 | 7.3 | 0.1 | 13.3 | 13.2 | 0.1 | 14.3 | 14.7 | 0.4 | 5.2 | 5.9 | 0.7 | 7.7 | 7.8 | 0.1 | 6.4 | 6.5 | 0.1 |
| d) Hatched | 18.9 | 18.5 | 0.4 | 13.8 | 12.6 | 1.2 | 12.6 | 10.2 | 2.4 | 11.3 | 11.4 | 0.1 | 13.9 | 13.6 | 0.3 | 18.5 | 18.8 | 0.3 |
| e) Horizontal | 4.5 | 5.0 | 0.5 | 2.1 | 1.8 | 0.3 | 2.2 | 2.5 | 0.3 | 2.0 | 2.3 | 0.3 | 2.1 | 1.9 | 0.2 | 5.3 | 4.0 | 1.3 |
| f) Complex | 3.1 | 3.1 | 0.0 | 3.7 | 4.2 | 0.5 | 4.3 | 4.1 | 0.2 | 1.6 | 1.8 | 0.2 | 1.7 | 1.6 | 0.1 | 2.0 | 2.3 | 0.3 |
| g) Plain | 5.2 | 4.6 | 0.6 | 2.1 | 2.4 | 0.3 | 4.3 | 4.6 | 0.3 | 4.8 | 4.5 | 0.3 | 3.5 | 3.5 | 0.0 | 4.4 | 5.0 | 0.6 |
| h) Interrupted | | | | 1.1 | 1.2 | 0.1 | | | | 1.2 | 1.4 | 0.2 | 2.1 | 1.6 | 0.5 | 0.2 | 0.3 | 0.1 |
| i) Punctate | | | | | | | | | | | | | 1.0 | 1.2 | 0.2 | | | |
| j) Other | | | | | | | 0.9 | 1.0 | 0.1 | 1.2 | 0.9 | 0.3 | | | | | | |
| 2) Collar Technique | | | | | | | | | | | | | | | | | | |
| a) Incised | 84.5 | 85.3 | 0.8 | 88.3 | 86.8 | 1.5 | 75.2 | 75.1 | 0.1 | 87.5 | 87.7 | 0.2 | 77.4 | 77.1 | 0.3 | 88.1 | 86.9 | 1.2 |
| b) Stamped | 7.6 | 7.7 | 0.1 | 8.0 | 9.0 | 1.0 | 13.9 | 14.7 | 0.8 | 7.7 | 7.8 | 0.1 | 15.3 | 15.5 | 0.2 | 6.2 | 6.5 | 0.3 |
| c) Incised and Stamped | 2.7 | 2.3 | 0.4 | 1.6 | 1.8 | 0.2 | 6.5 | 5.6 | 0.9 | | | | 2.1 | 2.3 | 0.2 | 1.3 | 1.5 | 0.2 |
| d) Other | | | | | | | | | | | | | 1.7 | 1.6 | 0.1 | | | |
| e) Plain | 5.2 | 4.6 | 0.6 | 2.1 | 2.4 | 0.3 | 4.3 | 4.6 | 0.3 | 4.8 | 4.5 | 0.3 | 3.5 | 3.5 | 0.0 | 4.4 | 5.0 | 0.6 |
| 3) Neck Decoration | | | | | | | | | | | | | | | | | | |
| a) % of Decoration | 41.6 | 42.1 | 0.5 | 62.2 | 61.7 | 0.5 | 54.3 | 52.8 | 1.5 | 50.4 | 50.0 | 0.4 | 39.0 | 39.5 | 0.5 | 55.2 | 52.8 | 2.4 |
| b) Horizontal (% of a) | 50.4 | 52.3 | 1.9 | 44.4 | 45.6 | 1.2 | 44.8 | 50.0 | 5.2 | 40.0 | 41.8 | 1.8 | 41.1 | 40.2 | 0.9 | 43.8 | 47.6 | 3.8 |
| c) Horizontal/? (% of a) | | | | 2.6 | 1.0 | 1.6 | 1.6 | 1.9 | 0.3 | 4.0 | 4.6 | 0.6 | 2.7 | 2.9 | 0.2 | 1.2 | 1.4 | 0.2 |
| d) Oblique (% of a) | 27.3 | 25.7 | 1.6 | 34.2 | 33.0 | 1.2 | 34.4 | 30.8 | 3.6 | 28.0 | 27.3 | 0.7 | 24.1 | 25.5 | 1.4 | 23.9 | 24.3 | 0.4 |
| e) Opposed (% of a) | 14.1 | 12.8 | 1.3 | 16.2 | 17.5 | 1.3 | 16.0 | 14.4 | 1.6 | 21.6 | 20.0 | 1.6 | 16.0 | 16.7 | 0.7 | 25.1 | 20.5 | 4.6 |
| f) Horizontal/Oblique (% of a) | 4.1 | 4.6 | 0.5 | 2.6 | 2.9 | 0.3 | 1.6 | 1.9 | 0.3 | 3.2 | 2.7 | 0.5 | 13.4 | 11.8 | 1.6 | 3.2 | 2.9 | 0.3 |
| g) Horizontal/Opposed (% of a) | 3.3 | 3.7 | 0.4 | | | | 1.6 | 1.0 | 0.6 | 2.4 | 2.7 | 0.3 | 1.8 | 1.9 | 0.1 | 0.8 | 0.9 | 0.1 |
| h) Other (% of a) | 0.8 | 0.9 | 0.1 | | | | | | | 0.8 | 0.9 | 0.1 | 0.9 | 1.0 | 0.1 | 2.0 | 2.4 | 0.4 |
| 4) % Interior Decoration | 6.2 | 5.8 | 0.4 | 3.2 | 3.6 | 0.4 | 6.1 | 5.6 | 0.5 | 1.6 | 1.8 | 0.2 | 1.7 | 1.6 | 0.1 | 5.1 | 4.3 | 0.8 |
| 5) % Lip Decoration | 20.6 | 20.5 | 0.1 | 34 | 31.7 | 2.3 | 20.9 | 21.3 | 0.4 | 33.9 | 34.1 | 0.2 | 24.7 | 25.6 | 0.9 | 24.6 | 23.9 | 0.7 |

| | | | | | | | | | | | | | | | | | | |
|------------------------------|------|------|-----|------|------|-----|------|------|-----|------|------|-----|------|------|-----|------|------|-----|
| 6) Secondary Decoration | | | | | | | | | | | | | | | | | | |
| a) Frontal Lip | 6.9 | 6.2 | 0.7 | 1.6 | 0.8 | 0.2 | 0.9 | 1.0 | 0.1 | 2.0 | 1.8 | 0.2 | 2.4 | 2.7 | 0.3 | 3.5 | 3.0 | 0.5 |
| b) Upper Punctates | 1.4 | 1.5 | 0.1 | 2.7 | 2.4 | 0.3 | 4.4 | 3.6 | 0.8 | 0.8 | 0.9 | 0.1 | 1.4 | 1.2 | 0.2 | 1.3 | 1.5 | 0.2 |
| c) Lower Punctates | 0.7 | 0.8 | 0.1 | | | | 2.1 | 2.0 | 0.1 | | | | 0.4 | 0.4 | 0.0 | 1.1 | 1.3 | 0.2 |
| d) Dividing Punctates | 0.7 | 0.8 | 0.1 | 1.1 | 1.1 | 0.0 | | | | 0.4 | 0.5 | 0.1 | | | | 0.4 | 0.5 | 0.1 |
| e) Basal Punctates | 3.4 | 3.5 | 0.1 | 3.2 | 2.9 | 0.3 | 6.5 | 7.1 | 0.6 | 6.9 | 6.8 | 0.1 | 6.6 | 6.9 | 0.3 | 4.6 | 4.8 | 0.2 |
| f) Sub-Collar Decoration | 5.5 | 5.8 | 0.3 | 8.0 | 9.0 | 1.0 | 1.7 | 2.0 | 0.3 | 9.3 | 7.7 | 1.6 | 3.5 | 3.5 | 0.0 | 3.5 | 3.5 | 0.0 |
| 7) Interior Rim Profile | | | | | | | | | | | | | | | | | | |
| a) Convex | 44.0 | 44.0 | 0.0 | 46.3 | 46.1 | 0.2 | 52.6 | 50.3 | 2.3 | 50.8 | 49.5 | 1.3 | 46.3 | 46.9 | 0.6 | 49.2 | 49.0 | 0.2 |
| b) Concave | 23.7 | 24.3 | 0.6 | 23.9 | 23.4 | 0.5 | 15.7 | 16.8 | 1.1 | 24.6 | 25.0 | 0.4 | 24.7 | 23.6 | 1.1 | 27.7 | 27.4 | 0.3 |
| c) Straight | 25.4 | 24.6 | 0.8 | 27.1 | 28.1 | 1.0 | 29.1 | 29.9 | 0.8 | 22.2 | 22.7 | 0.5 | 27.2 | 28.3 | 1.1 | 22.0 | 22.9 | 0.9 |
| d) Other | 6.8 | 7.0 | 0.2 | 2.7 | 2.4 | 0.3 | 2.6 | 3.0 | 0.4 | 2.4 | 2.8 | 0.4 | 1.7 | 1.2 | 0.5 | 1.1 | 0.8 | 0.3 |
| 8) Exterior Rim Profile | | | | | | | | | | | | | | | | | | |
| a) Convex | 18.9 | 19.7 | 0.8 | 12.3 | 12.0 | 0.3 | 16.1 | 15.7 | 0.4 | 18.5 | 19.1 | 0.6 | 17.8 | 19.0 | 1.2 | 14.1 | 14.3 | 0.2 |
| b) Concave | 53.9 | 53.3 | 0.6 | 65.9 | 67.1 | 1.2 | 62.2 | 60.9 | 1.3 | 47.3 | 55.4 | 1.9 | 51.9 | 50.0 | 1.9 | 63.1 | 60.8 | 2.3 |
| c) Straight | 27.1 | 27.0 | 0.1 | 21.8 | 21.0 | 0.8 | 21.7 | 23.4 | 1.7 | 24.2 | 25.5 | 1.3 | 30.3 | 31.0 | 0.7 | 22.9 | 24.9 | 2.0 |
| 9) % High Collars (30 mm) | 6.5 | 7.5 | 1.0 | 7.7 | 8.0 | 0.3 | 4.4 | 4.0 | 0.4 | 9.3 | 9.5 | 0.2 | 5.6 | 5.0 | 0.6 | 6.8 | 6.5 | 0.3 |

Vess.=Vessel, Diff.=Difference

Pearce noted that “it can be observed that there is a considerable amount of variation between houses. In particular, neck decoration ranges from a low of 39.0% in House 11 to a high of 62.2% in House 6, a difference of 23.2%” (ibid., 59) (Table 2.8). He suggested that there are a variety of ways to interpret these data. He calculated measures of difference between these houses and generated a single link cluster diagram (ibid., 61). He used this data to suggest there were “two groups of houses: the first group consisting of Houses 6 and 10 and the second group consisting of Houses 5, 9, 11, 12” (ibid., 59). Pearce noted the middens overlapping the ends of Houses 6 and 10 and suggests that these two houses were part of an early occupation of the village and were subsequently torn down, as indicated by the presence of midden deposits over one end of each house (Midden 66 over House 6 and Midden 52 over House 10) and replaced by Houses 9, 11, and 12 when Segment D was added to the village. Pearce goes on to state:

The above scenario is only one of several possible interpretations of the chain of events of house construction at Draper. It should be noted that other interpretations are equally viable, depending on the analytical techniques used. In the future, different techniques will be applied to the data which may result in a totally different interpretation of the six longhouses. The purpose of the above example was only to

point out one of the ways data could be manipulated and interpreted (sic) and does not necessarily reflect the actual situation at Draper (ibid., 63).

It is worth reiterating that Pearce’s data involved only information from the 1975 excavations and was undertaken more than nine years before the final analysis of the settlement pattern data (Finlayson 1985) where the interpretation was that Middens 52 and 66 were deposited over the ends of Houses 6 and 10 which had been shortened.

I would propose that the differences noted by Pearce are extremely noteworthy and that we must rethink the significance of certain attributes and their meanings on very large villages such as Draper as well as other Ontario Woodland Tradition villages in southern Ontario. This is a topic to be considered elsewhere and is largely beyond the scope of this study.

In examining intra-site variation, Pearce prepared a table summarizing the occurrence of various attributes in different segments of the Draper site based on middens excavated in the 1975 excavations. His results are presented in Table 2.9. Pearce noted the “considerable variation between segments of the village. In particular, neck decoration ranges from a low of 34.2% in Segment 5 to a high of 60.6% in Segment 2. Lip decoration ranges from 15.5% in Segment 2 to 34.9% in Segment 4” (ibid., 66).

Table 2.9. Intra-Site Variation for Selected Attributes from the 1975 Excavations at the Draper Site (from Pearce 1978, 68)

| Village Segment | 2 | 3 | 4 | 5 | Range | Mean |
|---------------------------------|----------|----------|----------|----------|--------------|-------------|
| Attribute | | | | | | |
| Total Stamping Technique | 13.4 | 11.2 | 8.6 | 11.1 | 4.8 | 11.1 |
| Opposed Collar Motif | 9.9 | 1.9 | 3.8 | 9.4 | 8.0 | 6.3 |
| Hatched Collar Motif | 12.7 | 10.2 | 14.7 | 21.4 | 11.2 | 14.8 |
| Neck Decoration | 60.6 | 52.2 | 49.0 | 34.2 | 26.4 | 49.0 |
| Interior Decoration | 1.4 | 6.1 | 7.9 | 3.4 | 6.5 | 4.7 |
| Lip Decoration | 15.5 | 26.7 | 34.9 | 26.5 | 19.4 | 25.9 |
| Frontal Lip Notching | 2.1 | 2.7 | 4.1 | 5.1 | 3.0 | 3.5 |
| Sub-Collar Decoration | 2.3 | 3.9 | 5.5 | 4.0 | 3.2 | 3.9 |
| Concave-Convex Interior Profile | 0.0 | 1.7 | 2.0 | 2.6 | 2.6 | 1.6 |
| High Collars | 4.9 | 4.9 | 5.8 | 6.8 | 1.9 | 5.6 |

Pearce correctly noted that these results are preliminary in nature, but the data in Table 2.9 illustrate the differences in the frequencies of these selected attributes in different parts of the village which need to be addressed upon completion of the excavation of the site.

Pearce also explored the variation of ten attributes of chronological significance defined by Ramsden in his Ph.D. dissertation (1977) (Table 2.10). Once again, Pearce noted that the data do not fit well for the Draper data but stresses that it was centred only on the 1975 excavations. Based on a single link cluster dendrogram, Pearce suggests a sequence of expansions for Draper of Segment 4, 2, 3, 5 (*ibid.*, 70).

Table 2.10. Frequency of Chronologically Sensitive Attributes for Village Segments (from Pearce 1978, 71)

| Village Segment | 2 | 3 | 4 | 5 |
|---------------------------------------|----------|----------|----------|----------|
| Attributes | | | | |
| Simple Collar Motif (Increases) | 52.8 | 67.5 | 59.0 | 48.7 |
| Opposed Collar Motif (Decreases) | 9.9 | 1.9 | 3.8 | 9.4 |
| Horizontal Collar Motif (Decreases) | 5.6 | 1.7 | 3.3 | 0.9 |
| Neck Decoration (Decreases) | 60.6 | 52.2 | 49.0 | 34.2 |
| Interior Decoration (Decreases) | 1.4 | 6.1 | 7.9 | 3.4 |
| Sub-Collar Decoration (Decreases) | 2.3 | 3.9 | 5.5 | 4.0 |
| Convex Interior Profile (Increases) | 41.1 | 58.6 | 44.2 | 39.3 |
| Concave Interior Profile (Decreases) | 27.7 | 14.2 | 27.6 | 39.3 |
| Concave Exterior Profile (Increases) | 45.8 | 67.6 | 59.2 | 43.1 |
| Straight Exterior Profile (Decreases) | 33.8 | 20.0 | 24.7 | 24.1 |

Perhaps most significant is Pearce's statement "that after a century of archaeological work in Ontario we still don't understand ceramics of the Ontario Iroquois" (*ibid.*, 72). The corollary of this statement is that the study of the Draper rim sherds specifically and Ontario Woodland Tradition rim sherds in general hold a tremendous potential to gain further insights into the Indigenous occupation of southern Ontario.

Pearce's study of the 1975 sample of rim sherds from the Draper site does illustrate the complexity of the ceramics from a very multifaceted Ontario Woodland Tradition village and the need to undertake such detailed intra-site studies of ceramic attributes.

Pearce also stated:

What is needed, therefore, is a great deal of communication and discussion, as well as a standardization of the methods of processing and analyzing data. Nothing will ever be resolved as long as every archaeologist is using a different method to analyze this data. How can inter-site relationships be determined if the data are not compatible? (ibid., 73).

Pearce noted that the system developed for Draper was used by researchers at some universities and in projects operated by the Museum in London. While this was a valid argument it is now clear that different archaeologists at various institutions continue to use quite diverse approaches to analyze ceramics on Ontario Woodland Tradition sites in southern Ontario. In fact, my analysis of 7,521 rim sherds used a different approach to ceramics as a result of my detailed study of the ceramics prior to their coding using an attribute system suited to the study of ceramics from Pickering to historic Neutral villages (Finlayson 1998). Based on that study, any future research of rim sherds from sites such as Draper would be further modified to address the issues arising from my study of Ontario Woodland Tradition ceramics from the Crawford Lake area and new problems not considered in the study of Draper site data undertaken to date.

After the completion of the 1978 excavations and the entry of all data on rim sherds into a computer master file, the writing of a final report on the Draper site rim sherds was delegated to Rob Pihl. His handwritten report is dated January 1984. A review of this report indicated that there were significant problems. For example, Pihl reports the number of rim sherds from House 5 as 140 (1984, Table 5) while Pearce documented the number as 291 rim sherds or 259 vessels (Pearce 1978, Table 34). Further, Pihl reported the number of rim sherds from House 12 as 411 while Pearce noted the number as 455 rim sherds or 398 vessels. Even more puzzling was the fact that Pearce's data were based on the excavations of 447 1 x 1 m squares of undisturbed living floor in House 12 in 1975 while an additional 129 1 x 1 m squares had been excavated in House 12 in 1978 (Finlayson 1985, 150) suggesting the number should have been significantly more than the 455 reported by Pearce. A. Smith documented the presence of 502 rim sherds in her study of House 12 (1990, 33).

It is clear from the above that much remains to be done to completely describe and analyze the rim sherds from the 1975 and 1978 excavations at the Draper site. Further, it should be possible to incorporate the results of the excavations of House 1 by Latta and parts of the results of House 2 by Hayden. My experience from the description

and analysis of 7,521 rim sherds from 76 sites in the Crawford Lake area (Finlayson 1998b) is that such descriptions and analyses need to be undertaken by a single individual who has the time, fortitude, and curiosity to fully explore the complexity of such huge collections of ceramics. For example, I note the comparison of the interpretation of high collared vessels in the Crawford Lake area by Smith (1997) and my own study (Finlayson 1998b) where I was able to use the frequencies of high collared vessels on certain sites to infer the creation and maintenance of alliances of the original long-term Crawford Lake Iroquoian inhabitants with the proto-Neutral inhabitants who moved into the area and settled in close proximity to and surrounding the original “Iroquoian” inhabitants.

There is a serious flaw in the use of attributes to describe and analyze ceramics from some Iroquoian sites in southern Ontario. This became apparent to me during my study of 76 Iroquoian sites in the Crawford Lake area west of Toronto. My experience is that attribute analyses work well for Pickering, Uren, and Middleport sites, but with the increasing complexity of the ceramics from later precontact and contact sites, it is necessary to segregate foreign sherds and to describe these separately and document their sources from other communities in more distant parts of Ontario and New York State. This matter has been discussed in detail by Joyce M. Wright (2006).

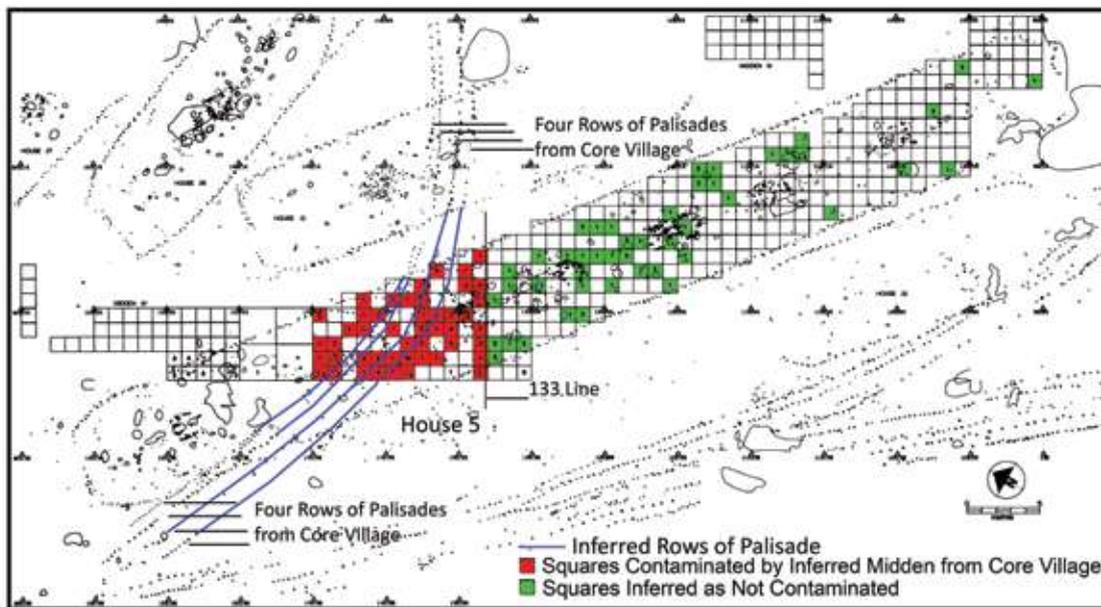
A further consideration of the analysis of the sample of rim sherds from the 1975 excavations was undertaken by Finlayson and Pihl (1980a). It was noted that:

1. 78% of the rim sherds came from middens although only 5% of the area excavated was midden deposits;
2. approximately 15% of the rim sherds are derived from undisturbed house living floor deposits which constitute 8% of the area excavated;
3. non-house non-midden areas produced virtually no rim sherds, or other artifacts, which suggests that these areas might have been regularly swept by the occupants of the village; and
4. disturbed deposits, approximately 84% of the area excavated, produced only 3% of the rim sherds (*ibid.*, 121).

This paper also described another instance of a house (#5) being constructed over previously formed midden deposits. This is portrayed in Figure 2.17. Based on this figure, it is estimated that 83 squares north of the 133-line produced 76 rim sherds, from zero to four per one m square. This represents an average of 0.92 rim sherds per one m square of living floor deposits within those house deposits inferred to be

contaminated by a midden created at the base of four rows of palisades of the Core Village and constituted 54.3% of the sample of rim sherds from the undisturbed living floor. The 271 squares south of the 133-line produced 64 rim sherds, from zero to three per one m square, for an average of 0.24 per one m square of living floor deposits are inferred to be relatively uncontaminated by the four rows of palisades surrounding the Core Village. This constituted 45.7% of the sample of rim sherds from the undisturbed living floor deposits. These data clearly support the interpretation of the contamination of some living floors of some of the longhouses at Draper, a situation similar to House 2 at the Draper site as excavated by Hayden (1976, 1979a, b, c, 1982; Finlayson 1977c).

Figure 2.17: Distribution of Rim Sherds in House 5 at the Draper Site (modified from Finlayson 1985, 90)

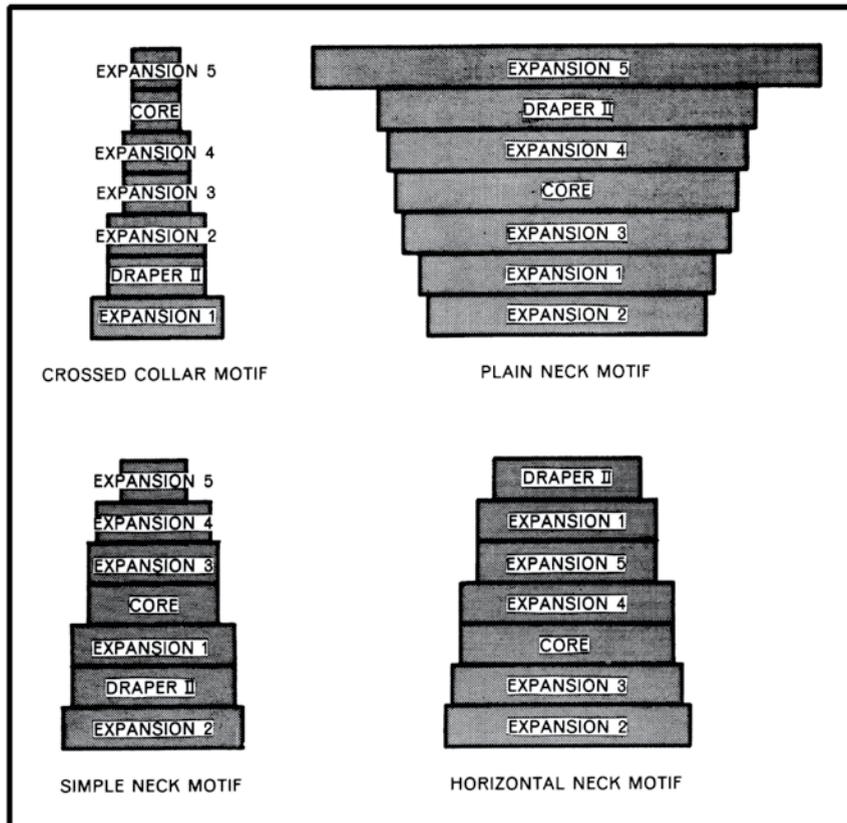


It is important to note that 14 of the 40 (45.0%) of all structures in the Draper site Main Village were constructed over areas where there used to be palisades, thus creating the possibility of contamination should there have been midden deposits in those areas prior to the construction of new houses associated with the relevant segments of the expanding village.

The 1980 paper by Finlayson and Pihl also presents some interesting data on variations in selected attributes based on the rim sherds recovered from the 1975 and

1978 excavations. Of particular interest is Figure 2.18 reproduced here which seriates the different segments of the village based on collar and neck motifs.

Figure 2.18: Seriations Based on Single Attributes for Collar and Neck Motifs (from Finlayson and Pihl 1980, 130)



2.10.7.2 ST. LAWRENCE RIM SHERDS AT DRAPER

In the fall of 1978 James F. Pendergast accepted my invitation to visit the London Museum of Archaeology with the intent of examining the very large collection of Draper site rim sherds and studying those rim sherds which he considered to be St. Lawrence Iroquoian. Subsequently he prepared a paper describing these sherds and interpreting their significance (Pendergast 1980).

Pendergast identified 1,001 rim sherds and for purposes of his study “assumed that they are the homogenous product of potters from a single St. Lawrence Iroquoian village” (1980, 3). He argued that:

This technique will permit the sample to be compared and contrasted with ceramics from known St. Lawrence Iroquoian sites seeking a match that will provide grounds on which to base a conclusion as regards to the origins of the St. Lawrence Iroquoians who lived on the Draper site. Clearly this approach is subject to an objection that the potters responsible for the manufacture of the specimens in the Draper sample may have come from a number of St. Lawrence Iroquois villages. That may be so, indeed, probably it is the case, but leaving aside the idiosyncrasies of individual St. Lawrence Iroquoian villages, there appears to be sufficient temporal and geographical consistence in their ceramics to justify this approach. In any event the state-of-the-art at present leave no option but to proceed on that basis (1980, 3,4).

In undertaking his study, Pendergast excluded ceramics which may have been from St. Lawrence Iroquoian sites or Confederacy Iroquois sites and focused strictly on those he believed were diagnostic of St. Lawrence Iroquoian sites. These included rim sherds decorated with:

the corn ear motif..., the punctate circle face..., the vertical row of punctate circles frequently found under castellations..., the ladder plait decoration..., notches at the base of the collar made by pressing the thumb or finger into the wet clay leaving a fingernail impression..., and undecorated triangular and rectangular areas on the collar frequently 'framed' with short horizontal lines...(1980, 5,6).

Using these diagnostics Pendergast identified a total of 1,001 rim sherds as previously noted, from the sample of 15,137 he examined as being St. Lawrence Iroquoian. This constituted 6.6% of the sample (ibid., 7).

Pendergast examined the distribution of St. Lawrence Iroquoian rim sherds recovered from the various houses and middens excavated at Draper. In his study, he attributed 220 rim sherds to specific middens and 29 from specific houses. He attributed the remaining 704 rim sherds to "disturbed" areas of the site. Unfortunately, at this point in time, 40 years later, I do not understand this large number of sherds without provenience since this does not correspond with other analyses of the rim sherds from the site.

Based on the available data, Pendergast concluded "that the St. Lawrence Iroquoian population was involved in the daily life of all areas of the Draper site with the

exception of Area 5 [Expansion F] and Draper 2 [the South Field]" (1980, 13, 14). Pendergast suggested that the lack of St. Lawrence Iroquoian rim sherds in the latter two areas may be a result of a change in the relationship between the two cultural groups during the latter part of the occupation of Draper assuming the two areas both represent the later occupation, something which can no longer be assumed for the South Field. Clearly the lack of provenience for 70.3% of the St. Lawrence Iroquoian rim sherds indicates that further study of the entire collection will be necessary to explore the distribution of these sherds within the village and the South Field.

In comparing the sample rim sherds from Draper to St. Lawrence Iroquoian villages, Pendergast concludes they "most closely resemble the ceramics from Dawson, Salem, Roebuck and Glenbrook" (1980, 29). He also noted a "connection between the Draper and Dawson people suggested by the ceramics should not be dismissed" (*ibid.*, 29) just because no European artifacts were found at Draper despite the very large sample of artifacts recovered. If Draper and Dawson were contemporaneous and Dawson is the site of Hochelaga, this would suggest that Draper was occupied at a later date than is currently generally accepted. Given the recent dating of the Draper-Spang-Mantle sequence of site occupations (Manning et al. 2018) this is a matter which requires further investigation.

At my request, Pendergast marked the back of each rim sherd with a thick mark from a black magic marker which should still be present on each of the sherds he considered St. Lawrence Iroquoian. This will allow future researchers an easy way to determine which sherds he included in his study.

2.10.7.3 JUVENILE VESSELS

The 1975 excavations at the Draper site produced a total of 3,451 pieces of ceramics which were classified as juvenile vessels. These were considered to be the results of young girls learning to make pots and are distinguished by being crudely made and decorated. The 1978 report by Pearce provides a detailed description of these artifacts in a manner generally similar to that used in the description rim sherds (Pearce 1978c).

Of particular interest is a large fragment of juvenile vessel with a double orifice, a photograph of which is included but not mentioned in the text (Pearce 1978c, 24) (Plate 2.5). This piece is of interest since double orifice vessels are found more commonly on Neutral sites and there is some evidence to suggest that Segment F represents a group of Neutrals joining Draper.

Two aspects lacking in the study of these artifacts to date are the study of the juvenile vessel fragments from the 1978 excavations and the distribution of these artifacts in different parts of the site.

Plate 2.5. and Plate 2.6: *Upper, Double Orifice Juvenile Pottery Vessel from Midden 56, Collection of the Canadian Museum of History; Lower, Ceramic Gaming Discs, Collection of the Canadian Museum of History*



2.10.7.4 MISCELLANEOUS CERAMIC OBJECTS

These artifacts were studied by Bob Pearce who developed a computer-based code to handle their description and analysis using Statistical Package for the Social Sciences (SPSS). Pearce produced a report on these artifacts from the 1975 excavations at Draper (1978b). This was updated to include these artifacts from the 1978 excavations (Pearce 1985b) and remains the most detailed description of a large sample of these artifacts. Pearce provides a description of the completeness of these artifacts as well as the distributional data on them.

Included in Pearce's study were:

- 1,438 lumps of clay;
- 91 ceramic gaming discs;
- 59 handles;
- 30 tubular beads;
- 25 discoidal beads;
- 7 marbles; and
- 5 beads.

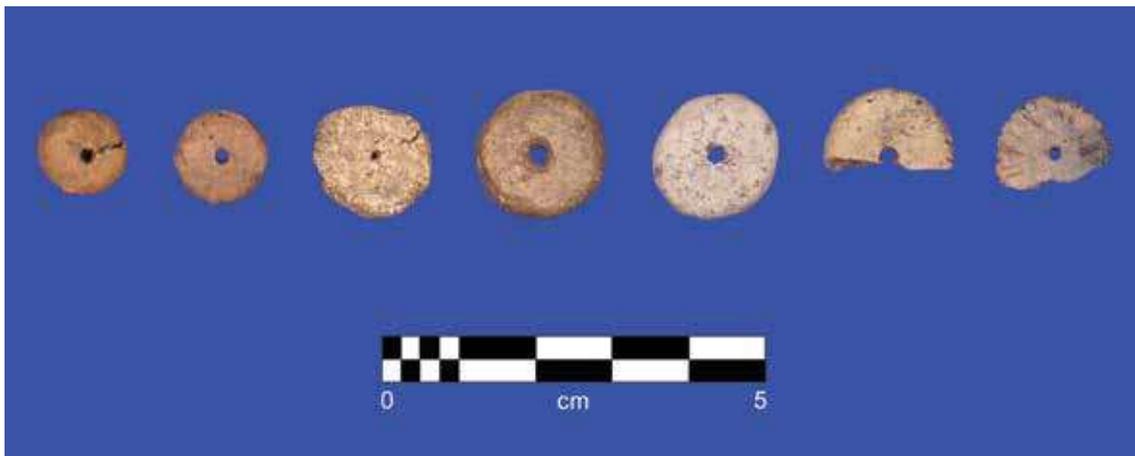
The lumps of clay may represent pieces which are the by-product of the manufacture of clay pottery vessels or other ceramic objects. Pearce noted that there was a leaf impression in one lump of clay, perhaps from a maple leaf and that another lump had tooth impressions in it (Pearce 1985b, 1).

Gaming discs were fragments of clay vessels which were generally manufactured from pieces of pottery vessels by the grinding of their edges to form discs (Plate 2.6). These are interpreted as counters for games which have been documented for Iroquoian-speaking people (Pearce 1985b, 2 citing Tooker 1967, 115). Pearce (1985b, Table 5) reports that 70 (76.9%) of the gaming discs were recovered from middens, 18 (19.8%) were found in houses, 2 (2.2%) were found while investigating Segment F palisades and 1 (1.1%) had no provenience within the site. Further, 72 of the 91 specimens (79.2%) were complete (*ibid.*, Table 2). While the numbers of complete specimens found in middens is not presented, it is evident that many were found in midden locations.

There were 59 handles, parts of ceramic vessels, which extended from a castellation to the neck or shoulder of the vessel (*ibid.*, 11).

Pearce documents 30 tubular beads made from fragments of pipe stems with one or both ends ground flat (*ibid.*, 3) (Plate 2.7). He notes that 28 of the 30 (93.3%) tubular beads were complete (*ibid.*, Table 3) and that 22 of the 30 tubular beads were from middens (*ibid.*, Table 5). As with gaming discs, most of the tubular beads (22, 73.3%) came from middens (*ibid.*) and were complete. This situation of many or most of some artifacts categories being found in middens is discussed in more detail in a later section (page 142). where it is suggested that disposal of complete items provided a demand for replacements through intra-village trade thus further integrating the various segments which formed Draper as a whole.

Plate 2.7. and **Plate 2.8:** *Upper, Ceramic Pipe Stem Beads, Collection of the Canadian Museum of History; Lower, Ceramic Discoidal Beads, Collection of the Canadian Museum of History*



There were 25 discoidal beads from Draper. Pearce indicates that two of the discoidal beads at Draper had milled edges and that these were similar to such beads at the Dawson, Glenbrook, and Summertown Station sites (Pearce 1985–7; Pendergast 1981) (Plate 2.8). Pearce notes that both came from the Core Village.

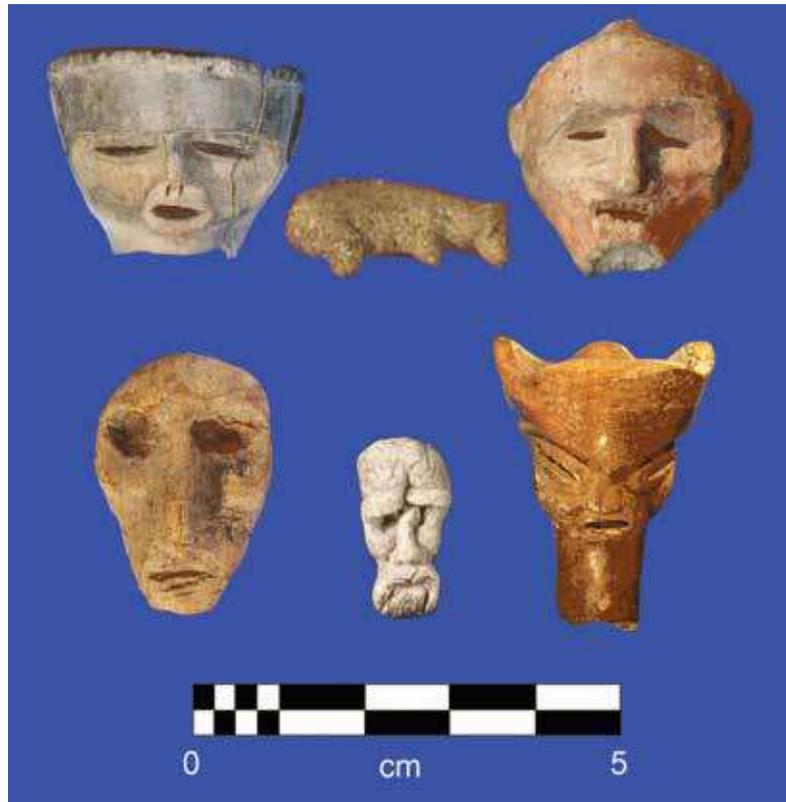
Pearce also records that 15 (60%) of the discoidal beads were complete (*ibid.*, Table 4) and that 18 (72.0%) came from middens (*ibid.*, Table 5). This again suggests that many of the complete specimens were found in middens.

Seven small balls of clay were interpreted as marbles. Pearce notes that these may represent “little balls, as big as the tip of your little finger” Sagard (1939, 97) which

were used by the Huron-Wendat in a bowl game. All were complete and five (71.4%) were found in middens (*ibid.*, Table 5).

Six of the ceramic figurines or effigies are illustrated in Plate 2.9.

Plate 2.9: *Upper row, Miscellaneous Ceramic Effigies; lower left, Ceramic Maskette; lower middle, Ceramic Effigy; Lower right, from Ceramic Pipes, Collection of the Canadian Museum of History*



Other objects included in Pearce's study consisted of one that was interpreted as a fragment of a gorget and six miscellaneous artifacts (*ibid.*, 4).

2.10.7.5 CERAMIC PIPES

One of the most detailed studies of any category of artifacts from the Draper site was undertaken by Alexander von Gernet for his M.A. thesis in the Department of Anthropology at McGill University (1982a, b; 1985).

To begin he developed, "A model which illustrates the processes contributing to the formation of archaeological sites" (Von Gernet 1985, vii). He then proceeded "to investigate the intellectual processes that enable archeologists to link artifacts recovered in the present with socio-cultural patterns that existed in the past" (*ibid.*).

Von Gernet used 3,997 pipe fragments recovered from the 1975 and 1978 excavations at Draper to investigate the spatial distribution of these fragments within the site. His studies revealed that essentially the pipe fragments were randomly distributed across the site.

As part of these analyses, Von Gernet examined the mends of 144 pipe fragments of 48 different pipes (*ibid.*, 107, 108). Two of the most intriguing matches are those from a midden to the southeast of House 33 (Midden 80/81) in the South Field to Midden 77/78 north of House 19 in Segment B of the site, a distance of about 240 m and another from northeast of House 39 in the South Field to House 1 in Segment C of the Main Village, a distance of about 190 m (*ibid.*, 110) (Figure 2.19). In addition, Von Gernet found a match between two pieces of an effigy pipe, one in Midden 77/78 in the South Field and in House 20 in Segment B, a distance of 220 m (*ibid.*, 123) (Figure 2.19).

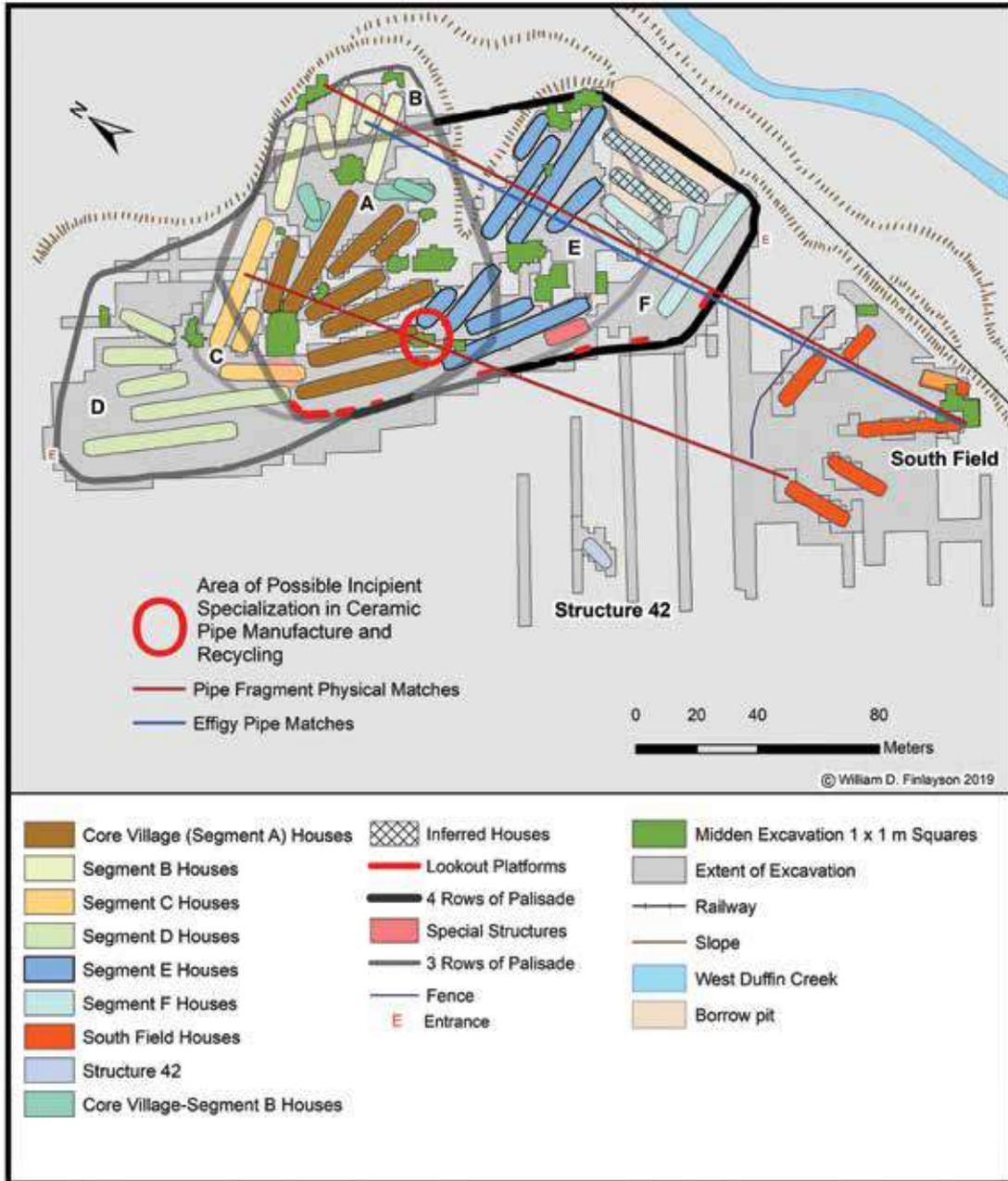
There are several other intriguing aspects to Von Gernet's study. He identifies five effigy pipes which he considers to be the work of one artisan or perhaps indicative of "incipient specialization" (1985, 121) which occurred in the vicinity of Midden 66 in the southern segment of the Core Village and the expanded Segment E. Von Gernet also notes that those inhabitants of the village who created Midden 66 "either accentuated ceramic pipe production or discarded pipe attempts at an abnormally high rate" (*ibid.*, 146). He also notes that this area of the site had "an unusually high proportion of recycled mouthpieces" (*ibid.*).

There were 235 pipe fragments from Draper which Von Gernet identified as juvenile pipes. In comparing "adult" pipes and "juvenile" pipes Von Gernet noted that there are no examples of pipes which may be transitional between these two categories. He suggests that "the line between 'juvenile' and 'adult' production occurred at the point when the purpose of the pipe changed from a mere toy to functional smoking device" (Von Gernet 1985, 142).

Von Gernet also documents 28 pipe fragments which he considers to be preforms of pipes (*ibid.*, 143).

Another aspect of this study deals with what Von Gernet called "recycled pipe fragments." In part, this involved reshaping 78 broken mouthpieces by grinding to form a new mouthpiece with a shortened pipe stem. A further 22 pipe stems were reworked to create beads while four items were reworked to produce artifacts, the function of which was not known (*ibid.*, 147).

Figure 2.19: Physical Matches of Selected Pipe Fragments and Area of Possible Incipient Specialization of Pipe Manufacture and Recycling at the Draper Site (after Von Gernet 1985, Figure 5.2, 5.6, and 5.7)



Finally, Von Gernet notes:

The tremendous standardization of Iroquoian pipes over time and space suggests that a continuous interaction took place among villages at a regional level. A striking example of this involves an intricately decorated vasiform pipe found at Draper, which shares an astonishing number of attributes with a specimen found at the Dawson site in Montreal (ibid.) (Plate 2.10).

Plate 2.10: Images of Vasiform Pipe from the Draper Site and the Dawson Site (Courtesy of Ontario Museum of Archaeology, from Von Gernet 1985, Plate 19); Draper Pipe, Collection of the Canadian Museum of History



2.10.7.6 CHIPPED STONE

The 1975 and 1978 excavations at Draper resulted in the recovery of 7,498 pieces of chipped stone, almost all of which was chert (Table 2.11). These were studied by Dana Poulton (1985). Like other analysts, Poulton created a computer-based code to facilitate the description of this large sample of artifacts (Poulton 1985, 44ff).

Poulton's report remains one of the most comprehensive studies of chert artifacts and debris from any Ontario Woodland Tradition site in south-central Ontario.

**Table 2.11. Summary of Chipped Stone from the Draper Site
(modified from Poulton 1985, 50)**

| | |
|--|--------------|
| Projectile Points and Preforms | 127 |
| Foliate Bifaces | 8 |
| Other Bifaces | 237 |
| Drills and Perforators | 67 |
| Strike-a-Lights | 18 |
| Scrapers | 548 |
| Cores and Utilized Cores | 158 |
| Debitage and Utilized Debitage | 5,118 |
| Pieces Esquillees and Utilized Pieces Esquillees | 1,206 |
| Pre-Iroquoian | 11 |
| Total | 7,498 |

There are eight significant aspects to Poulton's study which will be the focus of this examination:

1. The Iroquoian occupants of the Draper village had relatively limited access to Onondaga cherts which outcrop in southwestern Ontario;
2. There was very limited use of chert and other raw materials from other sources at Draper when compared to the number of ceramic sherds recovered;
3. One hundred and thirty-two projectile points were recovered, "most of which were complete or relatively so" (ibid., 10);
4. Pièces esquillées were the most common artifact in the chipped lithic assemblage;
5. Eight foliate bifaces, a diagnostic of Neutral villages in part of southwestern Ontario, were found at Draper;
6. Eleven artifacts were found in 1975 and 1978 and three from earlier excavations, which significantly predate the occupation of Draper and were collected by one or more occupants of the site;
7. The presence of possible traces of pitch representing remnants of a material used in hafting items such as projectile points; and
8. The role of those responsible for chert working at Draper.

Poulton noted that 97.80% of the raw materials used for tools or as a by-product of tool production were Onondaga chert (*ibid.*, 4). The sources of these cherts were in parts of southwestern Ontario occupied by the Neutrals and were obtained from them directly or indirectly by trade with Iroquoian peoples who lived west of Draper and closer to the Neutrals. Other cherts were imported in small numbers including Kettle Point chert from the southeast shores of Lake Huron (0.76%), indeterminate Devonian (0.03%), Collingwood chert from the southern shores of Georgian Bay (0.15%), Ancaster chert (0.03%), Huronian chert (0.07%), Selkirk chert (0.01%), and Flint Ridge chalcedony (0.03%). There was also a very limited use of local cherts including Balsam Lake chert (0.05%), Trent chert (0.12%), a chalcedony-like chert (0.24%), quartz (0.36%), quartzite (0.03%), and limestone (0.01%) materials that were available locally in deposits of glacial till. Chert source could not be determined for 0.32% of the assemblage (*ibid.*, Table 2a, 51).

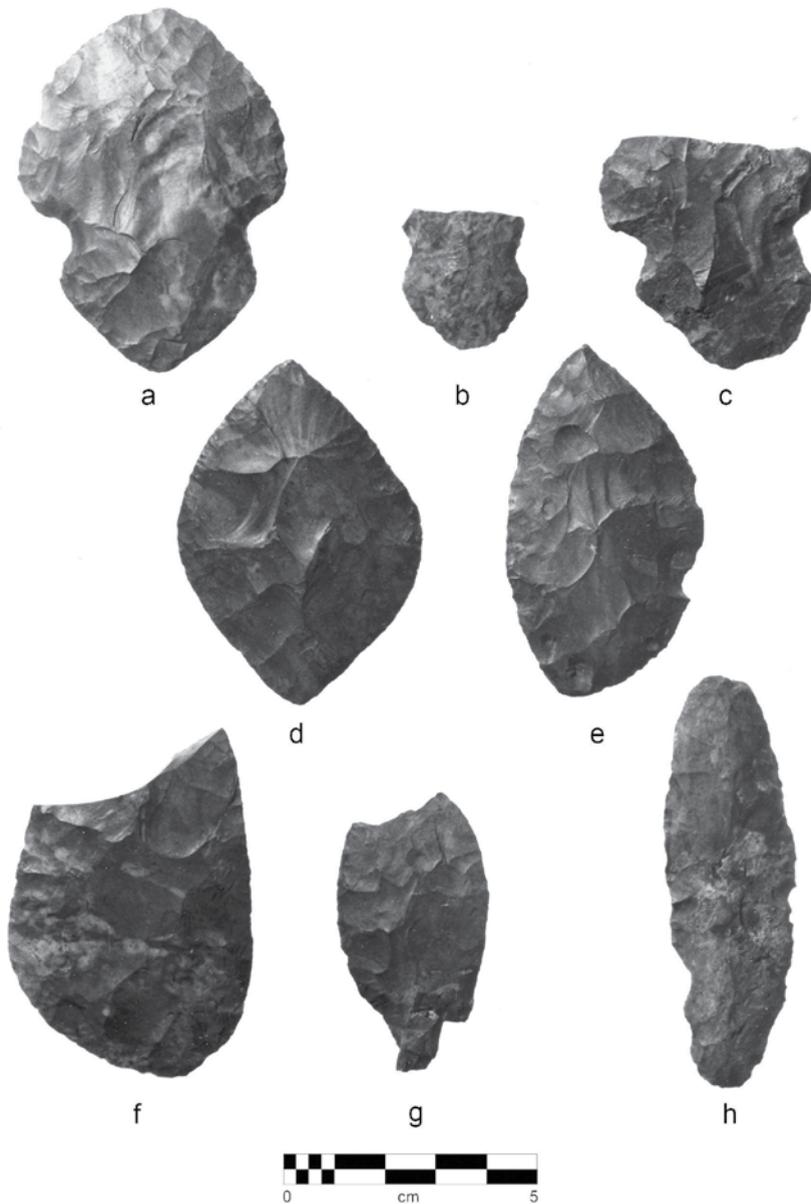
One result of the predominance of Onondaga chert yet its limited availability was that tools were often used for secondary purposes, a practice not common where high quality cherts such as Onondaga chert were more readily available. As an example, Poulton noted that drills occur on “projectile points, biface fragments, side scrapers, scraper fragments, pièces esquillées and débitage” (1985, 2). This aspect of Poulton’s study has been largely ignored by other researchers. He also emphasizes the relative lack of chert at Draper by comparing it to the Lawson site, a precontact Neutral site in London, where an estimated 18,221 pieces of ceramics were recovered from the 1976–1982 excavations compared to 16,094 pieces of chipped lithics (*ibid.*, 73). For Draper, an estimated 202,998 sherds were found in comparison to 7,498 pieces of chipped lithics (*ibid.*).

Of the 132 projectile points described by Poulton, he notes that: “Most of the projectile points are complete or relatively so” (*ibid.*, 10). In this study I was able to document provenience data for 125 of these. This revealed that 75.2% of the points were found in middens, 16.8% in houses and 8.0% had no provenience or were from areas between houses or between houses and palisades. That 75.2% of the points were found in refuse deposits is generally similar to the large quantities of other artifacts such as modified deer phalanges, bone beads, and stone beads which were also found in middens. This is a matter which will be discussed in more detail later in this paper.

Poulton noted that at the time of publication, “Draper features one of the largest samples of pièces esquillées in the Northeast” (*ibid.*, 30) and their use “as wedges in the groove and splinter technique of working bone, antler and hardwood (MacDonald 1968:88, Hayden 1980:3)...[and] as wood gouges” (*ibid.*, 31).

Another significant aspect of Poulton's study was the documentation of eight foliate bifaces found at the site (Plate 2.11). These artifacts had been studied by William A. Fox who states that "Notched foliate bifaces occur primarily on western Neutral villages... dating between ca. 1500 and 1550 A.D." (Fox 1981a quoted in Poulton 1985, 13).

Plate 2.11: Foliate Bifaces from the Draper Site (Photo courtesy of the Ontario Museum of Archaeology, from Poulton 1985, Plate 6), Collection of the Canadian Museum of History



For the two notched foliates for which provenience could be determined, one was found in Midden 64 at the east end of House 29 and one in Midden 52, a midden shared by the Core Village and Segment C. The single lanceolate foliate was found in Midden 56, a midden probably shared by the Core Village and Segment E. One of the unnotched lanceolates was found in Midden 53, a midden shared by Segments C and D, one was found in Midden 54, a midden shared by the Core Village and Segment B while the third was found in Midden 77/78, a midden within Segment B. Given the small number of specimens recovered, little can be said about their distribution except to note their absence from Segments E and F.

Poulton noted that Fox (1981) observed that the notched variety of foliate bifaces occur on westerly Neutral villages which date between circa A.D. 1500 and 1550. It is worth noting that none of these were found in House 45 in Segment E, one portion of which contained slash pits typical of Neutral houses. As with the few other Neutral artifacts found at Draper their absence from House 45 suggested these were traded with other members of the village.

Another aspect of Poulton's study to be reviewed here involves the 11 pre-Iroquoian artifacts recovered from the 1975 and 1978 excavations at Draper (Plate 2.12) (Figure 2.20). In addition, he noted that two such artifacts were found by Ramsden in his excavations in the 1960s and one was found during the 1973 excavations by Hayden (*ibid.*, 32). He concluded that these artifacts do not represent an earlier occupation of the site by pre-Iroquoian peoples. Rather these are interpreted as "hunting charms or curios" (*ibid.*, 32), most probably collected from the surrounding agricultural fields. Poulton noted that six of these were found in House 21 or the adjacent Midden 54. He suggested that "one or more residents of House 21 had the greatest access of all to such items (Poulton 1985, 32).

Figure 2.20: Map of Pre-Iroquoian Projectile Points and Blade Tool (Based on Poulton 1985)

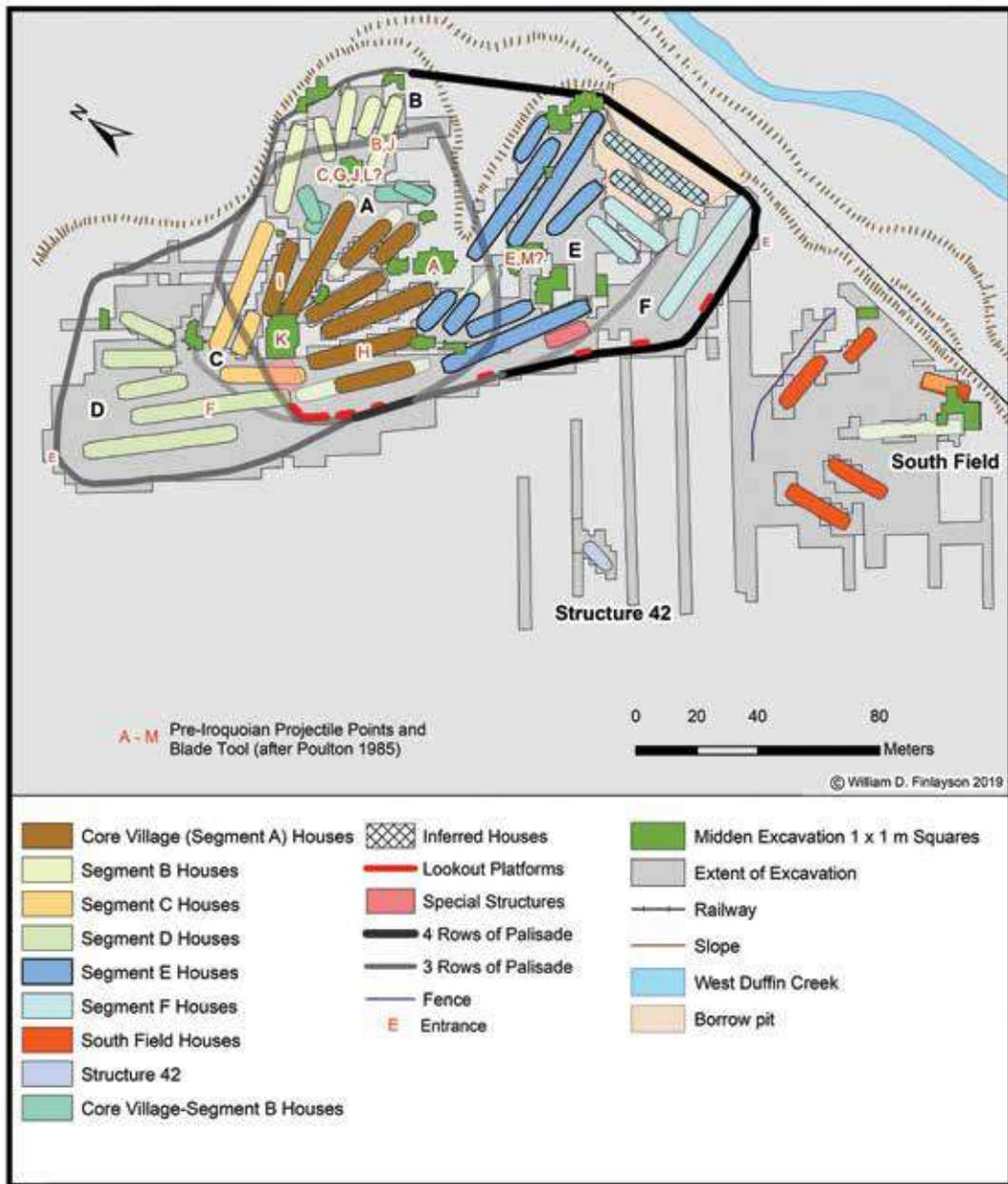
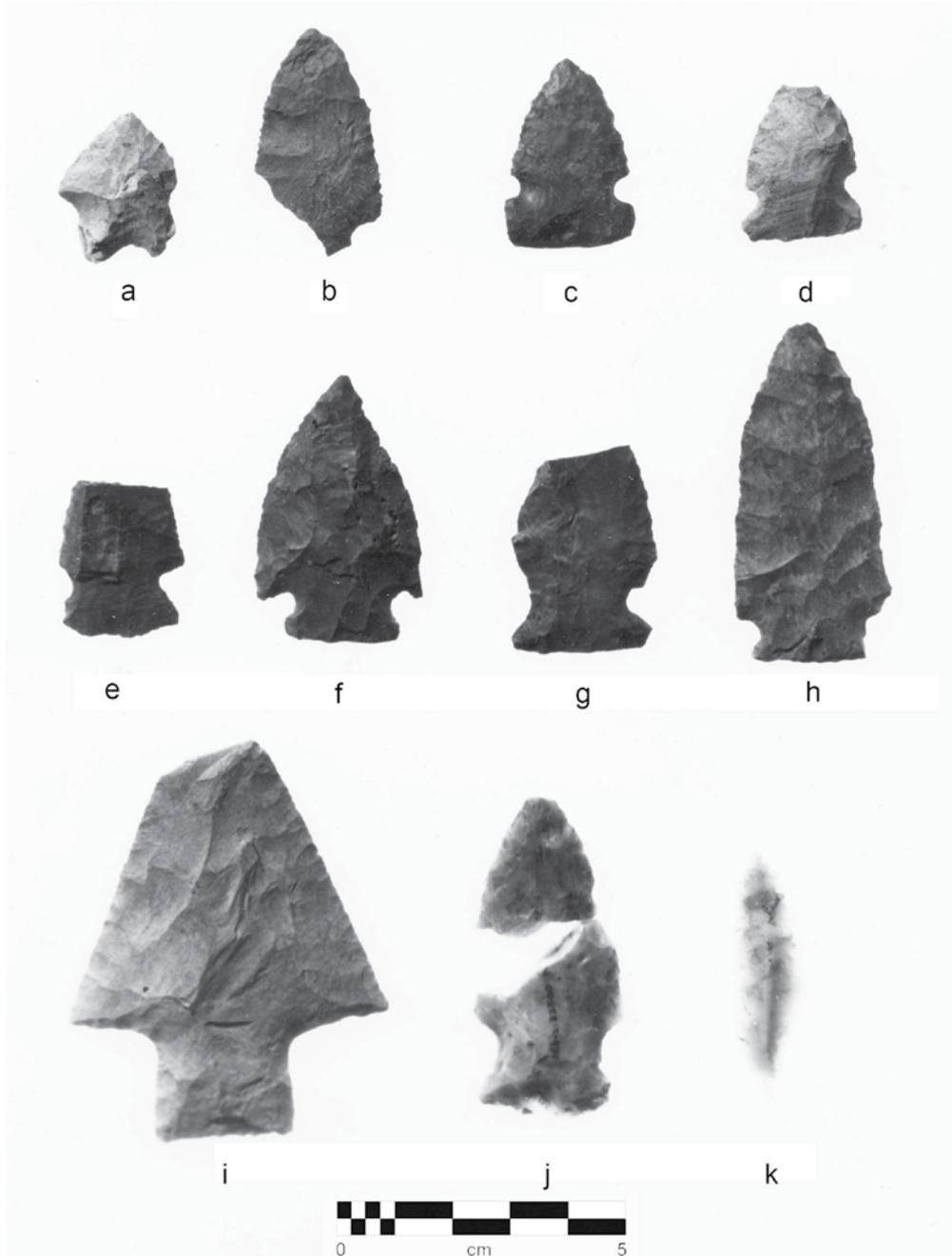


Plate 2.12: Pre-Iroquoian Projectile Points from the Draper Site:

a) Early Archaic, Bifurcate Base; b) Possible Early Archaic Serrated; c) Late Archaic Otter Creek Type; d) Brewerton Side-Notched Type; e–h) Late Archaic Brewerton Corner-Notched Type; i) Late Archaic Genessee Type; j) Middle Woodland, Vanport Type; k) Middle Woodland Blade Tool (Photo courtesy of the Ontario Museum of Archaeology, from Poulton 1985, Plate 13), Collection of the Canadian Museum of History



Poulton quantified the occurrence of:

a substance or substances resembling pitch were usually visible with the naked eye and appeared as either black specs or a more general black staining...It was found on 20 side-notched points and on 43 triangular points, a total of 63, which includes two of the side-notched projectile point drills and three of the triangular projectile point drills. It was also present on 19 other drills...In most cases the substance was largely confined to the proximal (basal) portions of the artifacts although it was present on some specimens from base to tip...The substance was also observed on a variety of scrapers, particularly flake end scrapers and rather surprisingly, on some pièces esquillées (ibid., 33).

Finally, it is interesting to note that Poulton said:

The limited number of formal tools in the Draper sample suggests that the hypothesized role of chert knapper is unlikely to have been a full-time job for more than one or two individuals. More probably it was in the nature of an informal, low level or “incipient” specialization as has recently been inferred for the Draper smoking pipe industry (Von Gernet 1982, 156) (ibid., 36).

Poulton’s study is by far the most detailed study of a very large collection of chipped stone tools and debris from a precontact Iroquoian site in southern Ontario.

2.10.7.7 GROUND AND ROUGH STONE

The description and analysis of the 2,905 ground and rough stone tools from the 1975 and 1978 excavations was undertaken by Bob Pearce. As Pearce noted, the original description of this assemblage was carried out by John Dawkins, a research assistant at the museum who also devised a computer-based code for this class of tools and prepared a preliminary report on his work (Pearce 1985, viii). Pearce took over this study and revised the code and descriptions of some of the categories of tools, notably the celts.

A list of the artifacts studied by Pearce is presented as Table 2.12 (ibid., 25).

Table 2.12. Summary of Ground and Rough Stone from the Draper Site (from Pearce 1985, 50)

| Class | Sub-Class | Sub-Class Frequency | Class Frequency |
|------------------------|------------------------|----------------------------|------------------------|
| Celts | | | 1,900 |
| | - complete | 106 | |
| | - blanks or preforms | 89 | |
| | - fragments | 770 | |
| | - debitage | 935 | |
| Abraders | | | 286 |
| Hammerstones | | | 275 |
| | - plain | 164 | |
| | - faceted | 37 | |
| | - anvil-hammer | 57* | |
| | - mano-hammer | 12* | |
| | - faceted anvil-hammer | 5* | |
| Anvil Stones | | | 85 |
| | - plain | 18 | |
| | - anvil-hammer | 57* | |
| | - mano-anvil | 5* | |
| | - faceted anvil-hammer | 5* | |
| Manos | | | 30 |
| | - plain | 13 | |
| | - mano-anvil | 5* | |
| | - mano-hammer | 12* | |
| Metates | | | 19 |
| Beads, Pendants, Discs | | | 207 |
| | - slate pendants | 45 | |
| | - slate pendant blanks | 9 | |

| | |
|---|--------------|
| - natural pebble pendants | 92 |
| - fossil pendant | 1 |
| - tubular stone beads | 4 |
| - discoidal stone beads | 19 |
| - discoidal stone bead blanks or gaming discs? | 37 |
| Cobble Spalls | 71 |
| Cobble Spall Scrapers | 3 |
| Netsinkers | 5 |
| Pestles | 3 |
| Knives | 2 |
| Fossils | 94 |
| Miscellaneous | 4 |
| Total | 2,905 |

* indicates combination tools, only counted once in total class frequency

As was the case with Poulton's study of the chipped stone assemblage, Pearce's study remains one of the most detailed description of a very large collection of ground and rough stone tools from a precontact Iroquoian site in southern Ontario. More importantly, Pearce made a series of observations about the distribution of classes and subclasses of these tools and debris across the site even though funds were not available to produce maps of the distributions by computer.

In his introduction, Pearce noted that:

these artifacts included functional tools utilized for woodworking (i.e. celts), food processing (i.e. manos and metates), food gathering (i.e. net sinkers), and tool manufacture (i.e. abraders) as well as decorative items (i.e. beads and pendants), leisure time items (i.e. gaming discs), curio (i.e. fossils) and objects of possible ceremonial, ritual or socio-logical significance (i.e. figurines) (ibid., 1).

Pearce studied each class of artifacts and looked for subclasses based on size or other attributes. For example, in his examination of celts, he prepared a histogram of the width of the bits of the celts and notes five separate subgroups based on size and suggests that the group with the smallest bit widths may represent chisels (ibid., 2). For all classes and subclasses of artifacts, Pearce identified the different raw materials used in the manufacture of tools or natural stone used without intentional alterations.

In an attempt to study intra-site distributions, Pearce noted that six artifacts could be mended. These matches did not produce the same widespread patterns noted by Von Gernet in his study of mends of pipe fragments as discussed earlier.

Pearce's study of intra-site distributions also looked at the locational data on slate pendants and ground stone discs. Of importance is his observation "that 90.8% of the pendants and 83.9% of the [stone] discs were found in middens" (ibid., 18) and that about 50% of functional clay smoking pipes and more than 85% of modified deer phalanges were also found in middens (ibid., citing Von Gernet 1985; McCullough 1978). He further notes that 14 houses which had living floor partially or totally screened contained neither of these subclasses of artifacts and that for the three houses where they were found, they were recovered from living floors not subsurface features.

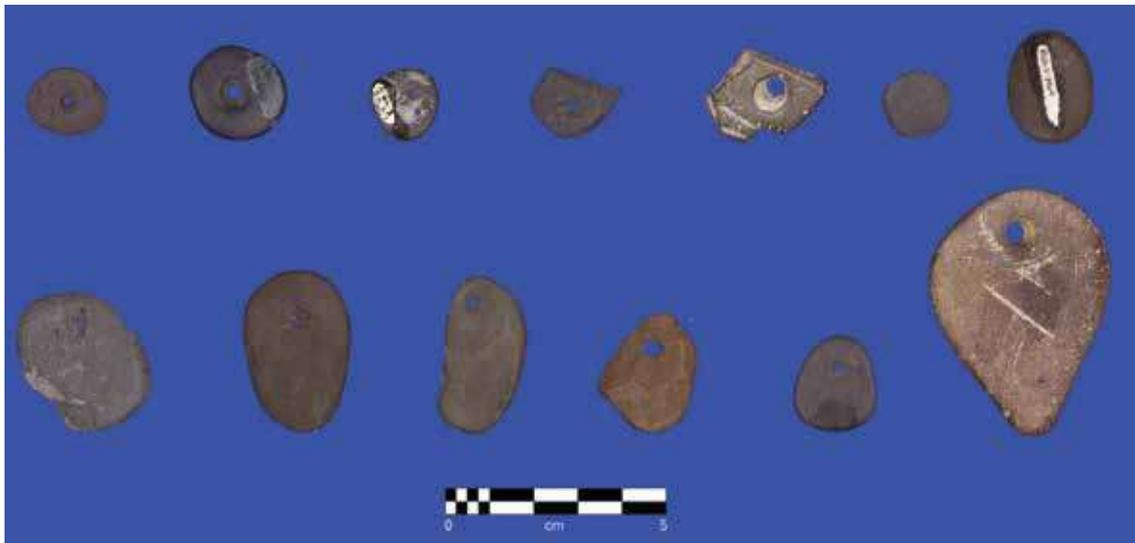
William A. Fox undertook a study of the distribution of slate pebble beads (2004). He noted that:

While most sites outside of the "core area" of Kettle Creek, Catfish Creek and Otter Creek drainages have produced only one or two specimens, no fewer than 45 "slate pendants" are reported for the ca. A.D. 1500 Draper village (Pearce 1985:25) (Figure 15.15). This is anomalous from a geographic and temporal standpoint but may in part be due to the extensive excavations on this site (Fox 2004, 296).

In 2018 I examined 52 slate beads/pendants and bead/pendant blanks at the Canadian Museum of History (Plate 2.13). This study was embarked on as a result of the aforementioned study by William A. Fox (2004, 296). Apparently, Fox was unaware that House 45 at the Draper site had six small slash pits characteristic of prehistoric and historic Neutral sites (Lennox and Fitzgerald 1990, 443). Finlayson (1985, 387) indicated that "their presence suggests that the occupants of House 45 may have had a different tradition of house building and had an origin different than other Draper people" (Finlayson 1985, 387). James V. Wright (2004, 1353) suggests that these were

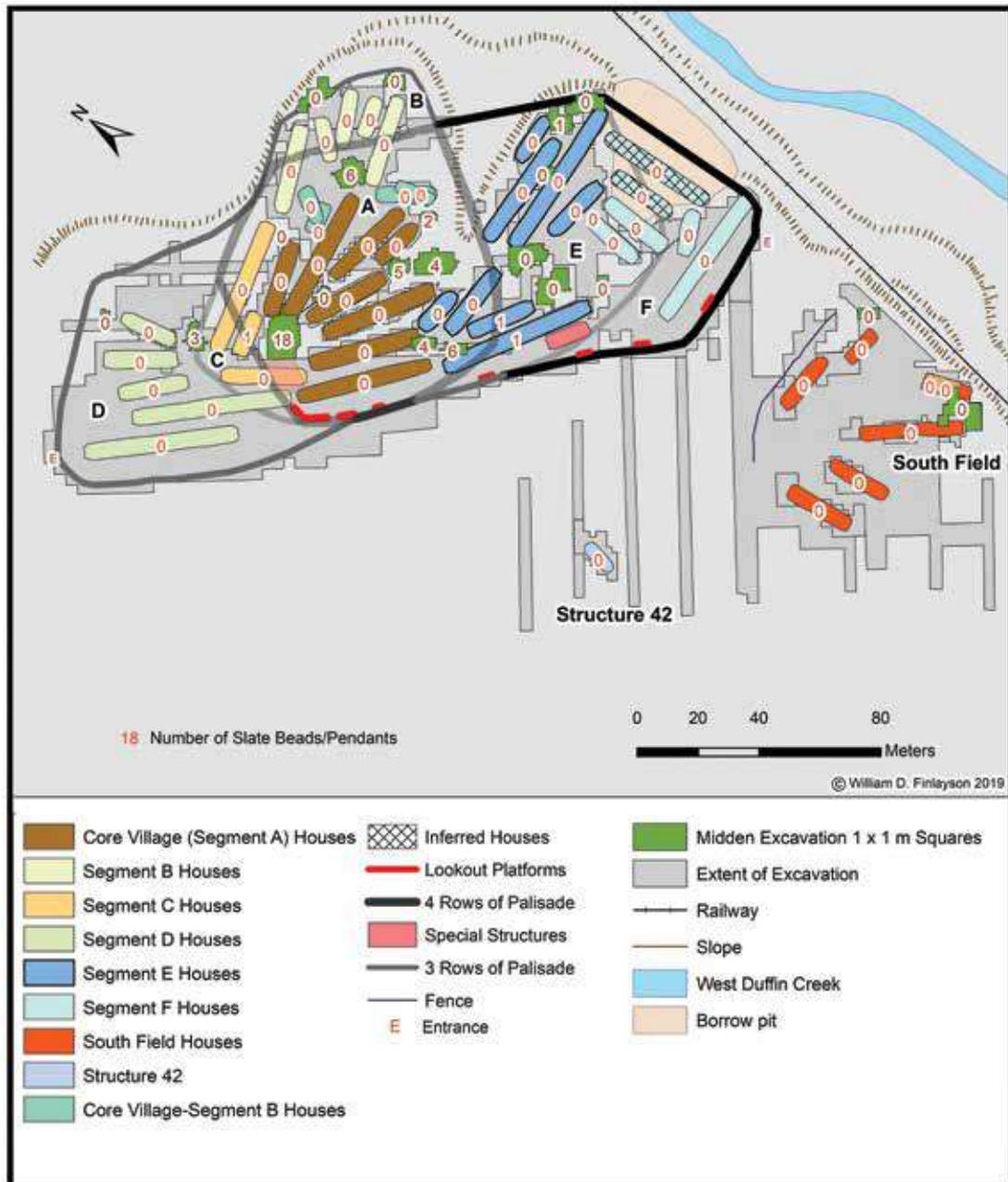
“indicative of Huron-Neutral relations.” Given the possibility that House 45 was built and occupied, at least in part, by several families of precontact Neutrals and there were a few other artifacts, usually single artifacts, at Draper diagnostic of precontact Neutrals, I wished to examine the distribution of these slate pendants across the Draper village. The map illustrating the distribution of the slate pendants is presented in Figure 2.21.

Plate 2.13: Slate Bead/Pendants from the Draper Site, Collection of the Canadian Museum of History



There are several interesting observations about these distributions. Most of the pendants (49) came from middens (94.2%) while only three came from houses (5.4%). Further, most of the pendants were found in middens in the Core Village or in middens shared by the Core Village and Segments B, C, a small part of D, and the western end of E. Only a single pendant was found in Midden 67 in the eastern end of Segment D and no pendants were found in Segment F or the South Field. Perhaps most curious was that none were found in House 45 although given the small number of pits in this house and the fact that the plough soil over the house was removed by power equipment, this is not particularly surprising. More about these distributions will be presented in a later section of this study.

Figure 2.21: Map of Beads/Slate Pendants at the Draper Site



It is interesting to note that Birch et al. (2016) cited Fox's (2004) discussion of the black pebble pendants from Draper and suggests:

that the population of the Draper site may have included peoples from distant communities. How they found their way to the site and the nature of their relationships with the "local" population nevertheless remains a matter of speculation and is in all probability the produce of multiple, intersecting patterns of competition, relocation and affiliation (2016, 126).

It's obvious that Birch was unaware of my discussion of the presence of Neutral features in House 45 at Draper and James V. Wright's elaboration of this matter (Finlayson 1985, 387; James V. Wright 2004, 1353).

Pearce also looked at the distribution of the different subclasses of celts and reported that 68.3% came from middens while only 26.3% came from houses (1985a, 18). He notes "that the manufacture of celts was an individual task (i.e., not specialized) and that each household was apparently responsible for the manufacture of its own celts" (ibid., 19). Pearce's data show that more than 10 celts or celt fragments were recovered from 10 houses, two of which were intersected by palisades (15 and 35) and therefore may have been contaminated by middens created at the base of the palisades while the remaining eight houses or parts of houses contained pieces from undisturbed living floors where it might be possible to discover activity areas within these structures.

Pearce also noted that:

more hammerstones, manos and metates, and abraders were found in houses than the celts and pendants as discussed above. In particular 61.6% of the manos and metates came from houses. This distribution seems significant in that it appears these objects were used and discarded in houses, and not as many were thrown into middens as was the case for celts and for pendants and discs (ibid., 19).

Clearly there is an opportunity to study the distribution of these artifacts within the living floor deposits excavated from these houses, something which is beyond the scope of this study.

2.10.7.8 BONE, ANTLER, AND SHELL ARTIFACTS

This class of artifacts has been subject to study by two graduate students.

Originally, the plan was for Karen McCullough to use this collection for a M.A. thesis at The University of Calgary. Given the massive size of the whole collection,

McCullough eventually chose to undertake a very detailed study of the 948 modified deer phalanges recovered from the 1975 excavations at the Draper site. She did, however, complete the description of many of the bone artifacts and these are on file at the Canadian Museum of History (McCullough 1978c).

McCullough defined four objectives:

1. To classify the Draper deer phalanges based on their diagnostic attributes;
2. To examine the distribution of the phalanges based on the six segments of Draper defined from the 1975 excavations;
3. To explore the distribution of modified deer phalanges in the Ontario Iroquois Tradition, the St Lawrence Iroquoians and New York State sites; and
4. To attempt to determine the function of these artifacts (1978 a, b, 8).

She selected five modes or diagnostic attributes based on the method of modification of the toe bones:

1. "Flattening of the Ventral Surface;
2. Dorsal Grinding of the Dorsal Surface;
3. Exposure of the Marrow Cavity;
4. Perforation of the Distal and Proximal Articular Ends; and
5. Burn marking" (McCullough 1978 a, b, 12–16).

Based on these five modes, McCullough defines 24 classes of modified toe bones centred on the presence of one or more of the diagnostic modes (*ibid.*, 17).

McCullough then examined the distribution of the classes and some of the modes (*ibid.*, 8) and looked at the methods of excavation as a factor in the distributions. One of the most important observations was that the majority of these artifacts were found in middens (87.3%) and only 12.3% in houses (with 0.4% with no provenience) (*ibid.*, 43). Also of interest was that the greatest number of phalanges were found in those houses which had living floors excavated. For the 1975 excavations, for the two houses with living floors excavated in 1 x 1 m squares and the four houses with living floors excavated in 2.5 x 2.5 m quadrants, 58 (65.2%) of the modified deer phalanges were recovered from living floors, while 22 (24.7%) were recovered from features in the subsoil and nine (10.1%) had no provenience (*ibid.*, 50). This again demonstrates that living floors of undisturbed houses at Draper produced the majority of artifacts of this category and that had the site been farmed and the plough zone removed by power equipment the majority of the artifacts would not have been recovered.

The modes and classes were randomly scattered across the site and no significant patterns could be found within Midden 52, the only midden with a sample large enough to examine vertical distribution.

A comparative study of modified deer phalanges in Ontario and New York state was undertaken by McCullough and possible uses of these artifacts is explored. McCullough concluded that “The diversity in degree and form of modification to the worked deer toe bones plus their random distribution throughout the middens and houses at Draper lead to the assumption that the artifacts were a multipurpose item, fairly readily available and probably not of a symbolic disposition” (ibid., 104). She also noted the need for more detailed descriptions than the traditional “cup and pin” and “toggle” varieties and to examine intra-site distributions. McCullough follows Ramsden (1977, 268) in noting the need to use non-ceramic artifacts “to assess the validity of postulated site relationships established by ceramic evidence” (ibid., 05).

This study was, by far, the most detailed study of any of the non-ceramic artifacts from the Draper site. It is unfortunate that few studies in the past four decades have undertaken comparable studies of modified deer phalanges.

Recently, Bruce Jamieson completed a comparative study of bone artifacts from two Huron-Wendat villages (Draper and Keffer), two St. Lawrence Iroquoian villages (Roebuck and McKeown) and a St. Lawrence Iroquoian fishing camp (Stewart) for his Ph.D. dissertation (2016). One of the results of this is a detailed description and functional analysis of the 4,321 bone, antler, and shell artifacts from the Draper site (Tables 2.13.1 and 2.13.2) (ibid., 239–244). He compared the Draper collection to that from the 1985 excavations at the Keffer site. This is the most significant study of bone, antler, and shell artifacts ever undertaken on Iroquoian sites in Ontario.

Table 2.13.1. Bone Artifacts from the Draper Site, Part 1
(from Jamieson 2016, Table 5.1) with Permission

| Artifact Type | No. | % |
|---|------------|-------------|
| Hide/Bark Working/Weaving Implements | | |
| Bone Awl | 782 | 18.1 |
| Antler Awl | 0 | 0.0 |
| Centre-Eyed Needle | 60 | 1.4 |
| Metapodial Needle | 7 | 0.2 |
| Bone Sewing Needle | 0 | 0.0 |
| Bone Scraper | 0 | 0.0 |
| Sub-Total | 849 | 19.6 |

| | | |
|-----------------------------------|-----|-----|
| Food Processing Implements | | |
| Husking Pin | 8 | 0.2 |
| Mandible Scraper | 44 | 1.0 |
| Sub-Total | 52 | 1.2 |
| Hunting Implements | | |
| Simple Bone Point | 24 | 0.6 |
| Conical Bone Point | 20 | 0.5 |
| Conical Antler Point | 29 | 0.7 |
| Sub-Total | 73 | 1.8 |
| Fishing Implements | | |
| Barbed Bone Point | 0 | 0.0 |
| Barbed Antler Point | 5 | 0.1 |
| Bone Barbs/Prongs | 73 | 1.7 |
| Carved Fish Hook | 0 | 0.0 |
| Sub-Total | 78 | 1.8 |
| Woodworking Implements | | |
| Incisor Chisel | 146 | 3.4 |
| Canine Chisel | 13 | 0.3 |
| Antler Adze | 1 | 0.0 |
| Antler Wedge | 0 | 0.0 |
| Antler Handle | 16 | 0.4 |
| Sub-Total | 176 | 4.1 |
| Stone Working Implements | | |
| Bone Hammer | 1 | 0.0 |
| Bone Flaker | 3 | 0.1 |
| Antler Flaker | 14 | 0.3 |
| Cylindrical Flaker (Drift) | 2 | 0.0 |
| Modified Antler Tine | 58 | 1.3 |
| Sub-Total | 78 | 1.8 |

Table 2.13.2. Bone Artifacts from the Draper Site, Part 2
(from Jamieson 2016, Table 5.1) with Permission

| Artifact Type | No. | % |
|-------------------------------|------------|----------|
| Digging Implements | | |
| Antler Pick | 6 | 0 |
| Sub-Total | 6 | 0 |
| Ritual/Leisure Objects | | |
| Scapula Pipe | 1 | 0 |
| Bone Counter | 0 | 0 |
| Phalange Counter | 142 | 3 |
| Human Cranial Rattle Disc | 17 | 0 |
| Human Bone Objects | 0 | 0 |
| Bone Tube | 9 | 0 |
| Sub-Total | 169 | 4 |
| Personal Adornments | | |
| Bone Bead | 1,307 | 30 |
| Bone Pendant | 14 | 0 |
| Bone Armlet | 38 | 1 |
| Bone Pin | 2 | 0 |
| Antler Comb | 1 | 0 |
| Marine Shell Bead | 13 | 0 |
| Shell Pendant | 1 | 0 |
| Snail Shell Bead | 24 | 1 |
| Canine Pendant | 26 | 1 |
| Ground Phalange | 661 | 15 |
| Perforated Phalange | 30 | 1 |
| Fish Vertebrate Bead | 24 | 1 |
| Sub-Total | 2,141 | 50 |

| Various Modified Objects | | |
|-------------------------------|--------------|------------|
| Miscellaneous Bone Artifact | 87 | 2 |
| Miscellaneous Antler Artifact | 32 | 1 |
| Miscellaneous Phalange | 199 | 5 |
| Modified Bone/Antler Fragment | 0 | 0 |
| Modified Clam Shell | 4 | 0 |
| Modified Conch Shell | 0 | 0 |
| Modified Turtle Shell | 1 | 0 |
| Bone Detritus | 298 | 7 |
| Antler Detritus | 78 | 2 |
| Sub-Total | 699 | 16 |
| Grand Total | 4,321 | 100 |

A close examination of the artifacts studied by Jamieson reveals that there are very large numbers of ground and miscellaneous phalanges when Draper is compared to Keffer. Further, there are very large numbers of bone beads at Draper, but less than at Keffer. As we shall see below, these high counts of bone beads and modified phalanges become very important when comparing Draper to Spang and Mantle and the explanation for these larger numbers.

Jamieson also recognized that “More detailed analysis of the spatial distribution of bone artifacts within longhouse living floors and villages would help define specific activity areas...” (2016, 288). His study does, after nearly four decades, begin to explore non-ceramic artifacts in ways suggested by Ramsden (1977) and McCullough (1978a, b).

Jamieson’s study documented 17 pieces of human cranial rattle discs (*ibid.*, 240). He described two complete cranial discs with perforations and one disc which was unfinished (*ibid.*, 197). Discussions of their functions included:

rattles or pendants derived from prisoners or slain enemies (Cooper 1984, Jamieson 1983, Pratt 1976). However, a number of other functions have been postulated as well as the suggestion that they may be curated fetishes derived from revered ancestors (Abel and Fuerst 1999, 34, Ramsden 2013, 223) (ibid., 193).

Jamieson also documents the presence of 13 marine shell beads, indicative of trade with the Atlantic seaboard (2016, 241).

More recently as well, Tara Jenkins carried out a study of human bone artifacts, primarily those from the Draper, Keffer, and Lawson sites. She cited five human skull rattles, one each from Houses 2 and 6 and Middens 51, 52 and two from Midden 67 at the Draper site. Jenkins records that on one of the rattles from Draper “Beveled edges were noted...that would have formed a flat surface necessary for binding the parietals against one another”(2016, 161).

In a visit to the Canadian Museum of History in 2018, I examined most of the Draper site collections. I noted two modified deer phalanges which were very different than the rest of those in the Draper site collection (Plate 2.14). One was a bead made from the distal end joint of a proximal deer phalange which is identical to that illustrated by Wintemberg in his report on the Lawson site (1939, Plate 12, No. 3). The second phalange had scoring around its distal end, apparently an attempt to create a modified deer phalange bead similar to that at Lawson and the one found at Draper. The deer phalange bead at Draper was found in Midden 52, a midden shared by houses in the Core Village and Segment C, while the scored phalange was found in Midden 54, a midden shared by houses in the Core Village and Segment B. Once again, these artifacts which are typical of the Neutral were found in the middens shared by the Core Village and Segments B and C and not in Segment F, the location of House 45 with its Neutral pits.

Plate 2.14: Two Modified Deer Phalanges from the Draper Site, Collection of the Canadian Museum of History



2.10.7.9 COPPER ARTIFACTS AND SCRAP

Finlayson and Pihl reported that “only 8 pieces of copper have been recovered from Draper consisting of a ring, a knife, three tubular beads, (averaging 29.3 mm long and 4.5 mm wide), a piece of scrap and two nodules” (1980b, 9) (Plate 2.15). We concluded that all the copper artifacts at Draper were of Native copper not European copper. We also noted that “The presence of a copper ring-like object presents several interpretative possibilities since the concept of a finger ring appears to be of European origin” (ibid., 10).

Plate 2.15: Copper Artifacts: *Upper left*, Finger Ring; *upper right*, Bead; *lower*, Type B “Old Copper” Copper Knife cf. Wittry (1951, 15), Collection of the Canadian Museum of History



Six samples of copper were sent to Ron Hancock at the University of Toronto Slowpoke Reactor Facility. The results were sent to me by Hancock in an e-mail dated April 22, 2019 and are presented in Table 2.14. These confirm that these six pieces are all Native copper.

Table 2.14. Results of Analysis of Native Copper Artifacts from the Draper Site (courtesy of Ron Hancock)

| | Houses | | | | | Midden |
|--------------------------|---------------|------------|------------|------------|------------|---------------|
| | 4 | 10 | 12 | 38 | ? | 52 |
| Catalogue No. | 15,273 | 54,238 | 38,736 | 103,702 | 72,841 | 24,680 |
| Month/Year of Analysis | Jan-94 | Jan-94 | Jan-94 | Jan-94 | Jan-94 | Jan-94 |
| Lab Series # | 308 | 311 | 310 | 313 | 312 | 309 |
| Parts per Million | | | | | | |
| Material | No. | No. | No. | No. | No. | No. |
| Ag | 170 | 110 | 78 | 250 | 77 | 600 |
| As | <6 | <5 | 16 | <5 | £8 | 15 |
| Au | 400 | 350 | <70 | <90 | 400 | <130 |
| Co | 5.6 | 3.4 | 4.8 | 4.6 | 7.7 | 3.1 |
| In | <1.2 | <0.8 | <1.1 | <0.9 | <1.2 | <0.8 |
| Mn | 17 | <4 | 31 | 23 | 13 | 22 |
| Ni | <70 | <40 | <30 | <70 | <70 | <40 |
| Sb | <0.2 | 0.2 | 0.4 | <0.1 | 0.4 | <0.07 |
| Sn | 870 | <70 | <270 | <150 | <120 | <330 |
| Zn | 87 | 57 | 91 | <30 | 170 | 34 |

2.10.7.10 FAUNAL REMAINS

The identification of the faunal remains was begun in the field laboratory at the Pickering Airport Lands by Jim Burns and continued in the museum laboratory at The University of Western Ontario in late 1975 and 1976. Jim Burns examined 44,448 mammal bones of which 29.2% could be identified to genus/species. These identifications were drawn from the assemblage from the first 40,000 catalogue numbers assigned to the artifact collection. Thus, these were drawn from different midden and house deposits based on when they were excavated, not on particular provenience units. Of these, 12,966 were identified to species as detailed in Table 2.15 (T. Burns 1979, 34).

**Table 2.15. Results of Partial Analysis of Draper Site
Faunal Remains (from T. Burns 1979, 43)**

| Species | # Bones | % Identified Remains | MNI (#) | Estimated Meat Obtained (lb.) |
|--------------------|----------------|---------------------------------|----------------|--|
| Eastern Cottontail | 21 | 0.2 | 1 | |
| Varying Hare | 34 | 0.3 | 4 | |
| Eastern Chipmunk | 35 | 0.3 | 4 | |
| Woodchuck | 579 | 4.5 | 24 | 134.4 |
| Grey Squirrel | 44 | 0.3 | 4 | |
| Red Squirrel | 41 | 0.3 | 7 | |
| Beaver | 389 | 3.0 | 8 | 308 |
| Deer Mouse | 2 | | | |
| Meadow Vole | 9 | 0.1 | | |
| Microtine | 3 | | | |
| Muskrat | 139 | 1.1 | 10 | 20 |
| Porcupine | 3 | | | |
| Wolf | 12 | 0.1 | | |
| Dog | 1,064 | 8.2 | 24 | 480 |
| Canis Species | 23 | 0.2 | | |
| Red Fox | 19 | 0.2 | 3 | |
| Grey Fox | 41 | 0.3 | 6 | |
| Fox Species | 35 | 0.3 | | |
| Black Bear | 511 | 3.9 | 15 | 3,150 |
| Raccoon | 127 | 1.0 | 8 | 140 |
| Marten | 20 | 0.2 | 3 | |
| Fisher | 10 | 0.1 | 3 | |
| Long-tailed Weasel | 2 | | | |
| Mink | 3 | | | |

| | | | | |
|-------------------|---------------|--------------|-----|--|
| Striped Skunk | 24 | 0.2 | 2 | |
| River Otter | 25 | 0.2 | 2 | |
| Bobcat | 1 | | | |
| White-tailed Deer | 9,732 | 75.1 | 127 | 12,700 |
| Moose | 13 | 0.1 | | |
| Wapiti (elk) | 5 | | | |
| Total | 12,966 | 100.0 | | 16,932.4 (7,680.4 kg) |

Subsequently, Tiina Burns examined an additional 19,582 bone fragments, again all mammal. This study examined samples from a greater number of houses/middens than the previous study by Jim Burns. She was unable to integrate the results of the two studies since the computer file with these new entries had not been subject to error correction. Accordingly, she made some general comparisons between the two samples of faunal material from Draper (T. Burns 1979, Appendix A). Of importance was that Burns was able to provide faunal data from Angele Smith's study of two undisturbed longhouses excavated in 1 x 1 m squares (see below).

A report on these identifications was prepared with funding from the Social Sciences and Humanities Research Council of Canada and a copy has been filed with the Canadian Museum of History (T. Burns 1979).

T. Burns' summary of her examination of the original study of faunal remains follows:

1. *44,448 pieces of bone were examined for this analysis by James A. Burns. This represents part of what was recovered during the 1975 field season, and an estimated 1/3 of all bone remains from the site;*
2. *27 species of mammals were identified. The 7 most important, in order of decreasing frequency of bone remains are white-tailed deer, dog, woodchuck, black bear, beaver, muskrat and racoon;*
3. *The rate of identification was 29.2%. Dogs and burning were important factors in taphonomic processes, with 26.4% of all bones showing evidence of chewing and/or acid-etching from canid ingestion, and 26.2% were either charred or calcined;*
4. *Deer and bear were the major food items for the Draper inhabitants, together representing 15,850 lbs. (7,189 kg) of available meat or 93.6%;*

5. *The inhabitants of the village likely practiced a form of “garden hunting” benefiting from both animal protein and carbohydrate harvests from their gardens. Certain mammals are able to adapt to and benefit from contact with man and white-tailed deer is a prime example of this;*
6. *Because of the ecological similarities between this region of southern Ontario and east-central United States, comparisons in subsistence economy should be made with groups to the south, and not the north in Huronia where a different ecological situation occurs;*
7. *Draper village was most probably abandoned not because of soil, forest or game depletion but because of the vast accumulations of offal produced by so many people in so small an enclosed area. Pollution is not just a present-day phenomenon (1979, 34, 35).*

The list of all faunal identifications by Burns is presented in Table 2.15. It is noted that domestic animal intrusives remains were cow-8, pig-1, and horse-1. Unidentified bone fragments numbered 465 pieces. Unidentified small, medium, medium to large, and large mammal bone not identified to genus and species numbered 3,301, 27,693, and 9 respectively. The total number of bones examined was 44,448 with an identification rate of 29.2% (T. Burns 1979, Table 1).

In her report on the additional sample of faunal remains studied, Burns notes that “the five most common species as represented by percent of identified remains are, in descending order, white-tailed deer, domestic dog, woodchuck, black bear and beaver” (ibid., 37) which is similar to the earlier study. She notes that in this second sample, the minimum number of individuals (MNI) for deer was 54 individuals while it was 127 for the initial sample but that the numbers cannot simply be added together without further study.

Tiina Burns noted minor changes in the occurrence of various species including a decrease in dog (from 8.2 to 6.8%), increase in striped skunk (from 0.2 to 0.6%), and an increase in deer (from 75.1% to 77.7%).

In a preliminary integration of the results of the two studies, Burns noted that for:

the three middens 52, 55 and 56 which are represented by greater than 2,000 identified fragments. The white-tailed deer percentages range from 65.6% to 76.1% and for domestic dog the range is similarly unusual, from 6.8% to 12.0%. Another interesting trend is a higher percentage of deer remains from house floors and pits than in midden deposits, while the opposite appears to be true for dog remains which are better represented in middens (1979, 38).

Burns also raises interesting issues regarding changing use of mammals as the Draper village expanded:

Bear and deer, being the major sources of animal protein and fur, should be studied more carefully in order to detect trends that occurred at the village as it expanded. As populations increase, there is an increased demand for food. At the Draper site, could it be that the extra food required was supplied by intensifying agriculture or increasing hunting pressures or a combination of the two? If the proportion of deer decreases with the expansion of the village then it may be postulated that they are being over-exploited, resulting in population declines of deer and that the inhabitants of the village would have to be less selective in the animals they took for food. If deer remains increase proportionally then this may reflect an increased specialization of the inhabitants for deer, with the deer populations able to withstand the increased hunting pressure. One would have to look at the faunal, floral and ceramic picture as a whole and see in what ways changes resulting from an expanding village affect the life of the inhabitants. (ibid., 38, 39).

It is important to note here that it is very likely that the occupants of the Draper site were trading with the local Algonquian populations for deer hides as were the Huron-Wendat in historic Huronia. This observation is even more poignant given the significant re-dating of the Draper-Spang-Mantle sequence as mentioned earlier (page 5) and to be further explored in a later section of this study.

Burns also explored:

the ability to distinguish those species trapped near to the village from those either caught on hunting parties or obtained in trade with Indian groups further north. A clear pattern seems to emerge if one compares body part distribution within species identified. Common animals from the Draper area, caught along nearby Duffin Creek or while 'garden hunting' are represented by scattered distribution of body parts, implying that a whole carcass was brought back to the village for processing. Species of note which fall into this category are white-tailed deer, black bear, dog, raccoon, river otter, grey squirrel, varying hare and cottontail rabbit. Other species which are 'over-represented' by skull portions are such species as grey fox, red fox, marten, fisher and red squirrel; this implies that they were obtained in fur trade – the skull included in the fur – or butchered elsewhere and only the

fur returned with the hunters. Except for grey fox, which is more common to the south, the other species are more common in the mixed hardwood-coniferous and boreal forests indicating trade or travel further north (ibid., 39, 40).

Burns notes the presence of three dog burials discovered during the 1975 excavations in Houses 6, 8, and 10 (ibid., 14) and notes that these were given special treatment through burial within the houses (Plate 2.4).

Burns concludes:

Completion of identification of the Draper site faunal remains and the analysis of the site as a single unit, and as separate expansion units, will provide answers to some of the questions posed and will probably confirm several hypotheses. The reconstruction of a picture of daily life for the Draper people, showing their ability or inability to cope with increasing concentrations of people in the village, and the strain thus put upon food requirements are all worthy objectives for investigation (ibid., 40).

It is apparent that the completion of the faunal studies for Draper and also the study of the samples from Pugh, Spang, and White would provide significant new insights into the occupation of these sites and their adaptation to the local Duffin Creek environment. In particular, a faunal analysis for the White site should also provide information which would be valuable for an understanding of it as a seasonally occupied hamlet as suggested below based on the extensive rebuilding of some houses.

It is worth noting the faunal sample recovered from the White site in 1973 and reported by Jim Burns (1979b, 163) revealed the five most common species of mammals in decreasing order of occurrence were human, deer, dog, beaver, and hare/rabbit. While the sample is very small, the presence of only 16.2% deer along with relatively large numbers of fish hint at different subsistence practices/bone disposal practices at White compared to Draper. Also surprising is the relatively large number of human bone fragments, which were most common.

Such expanded studies of the faunal remains from Draper, Spang, Pugh, and White should also include a detailed comparison of the faunal remains from the Mantle site. This is particularly important given some of the information on Mantle. For example, Jennifer Birch in her Ph.D. dissertation addresses the analysis of faunal remains at Mantle noting:

Large quantities of deer bone have been identified in the mammalian faunal assemblage at Mantle, more than has been observed at any other site on the north shore of Lake Ontario (Ronald F. Williamson, personal communication, 2010)...and at Mantle may represent as much as 80 percent of all mammal remains (Birch 2010, 154).

In the final analysis of the Mantle faunal remains, deer represented only 61% of the mammal (Needs-Howarth 2012a, 286; Birch and Williamson 2015, 107) whereas deer represents 75.1% of the mammal bone at Draper (T. Burns 1979, 43).

It is interesting, however, that Hayden's excavation of House 2 at Draper indicated that 63.4% of the bone was deer (J. Burns 1979a, 124) while A. Smith's study of House 12 revealed 80.2% of the mammal bone was deer (1990, 81). It must be remembered that the end of House 2 excavated by Hayden had been contaminated by a midden deposit at the base of part of the Core Village palisades before the palisades were dismantled and House 2 was constructed. Therefore, there was very likely some deer bone in these contaminated deposits from the occupation of the Core Village. This suggests that removal of deer bone from the contaminated end of the house would lower the percentage of deer bone from the house below the 63.4% reported. This would add further support for T. Burns' suggestion that as the Draper village expanded, we might expect to see lower numbers of deer due to their over exploitation. A reanalysis of Hayden's data would be necessary to further explore this matter.

Clearly, there were differential practices in the disposal of deer bone on these Ontario Woodland Tradition sites when comparing the percentage of bones from houses versus the entire assemblage, something that requires further investigation.

2.10.7.11 FLORAL REMAINS

Flotation of archaeological soil samples to collect plant remains and small artifacts was introduced into Ontario by me, Finlayson, during my excavation of Middle Woodland Saugeen culture sites in Bruce County in 1970 (1977a), by James V. Wright in 1970 in his excavation of the Nodwell site (1974), and by me, Finlayson, in the investigation of the Middleport Crawford Lake site in 1973 and 1974 (Finlayson and Byrne 1975).

During the 1975 field season at the Draper site more than 3,000 flotation samples were collected, with a 13-litre sample being the standard. These were subject to the "double bucket" flotation technique (Shock 1971; Fecteau 1978b, 6). This work was undertaken by Charles Turton who also identified the plant remains in 200 of the

samples with the results of his identifications being incorporated into Fecteau's 1978 study. Most notable was Turton's discovery of tobacco (*Nicotina rustica*) seeds, probably for the first time in Ontario.

An additional 828 flotation samples were analyzed by Rudy Fecteau during the winter of 1977/78. His report was published in 1978.

In total, 1,028 samples, from an estimated 5,595 litres of soil, were examined from 11 longhouses with the majority being from pits in these houses (Table 2.16).

Cultigens present were corn, beans, squash, sunflower, and tobacco. Berries included sumac, elderberry, strawberry, raspberry, blueberry, gooseberry, and hawthorne. Fruits included Canada plum, pin cherry, choke cherry, cherry, and grape. Weeds identified included goosefoot, purslane, knotweed, bedstraw, spikenard, thistle, campion, and grass while the only nut encountered was hickory nut (Fecteau 1978b, 19).

Ramsden's investigation of Draper in the 1960s produced corn, bean, and squash and a possible cherry pit (Ramsden 1968, 123). Latta's 1972 excavations found evidence of corn, bean, plum seeds, and an unidentified seed (Ramsden 1973, 46) while Hayden's 1973 excavations produced evidence of corn, beans, squash, sunflower, chenopodium, staghorn sumac, hawthorne, raspberry or lackberry, Canada plum, sedge, elderberry, pin cherry, and winged pigweed beech and butternut (King and Crawford 1979, 169, 170).

One of the most notable observations from the massive amounts of soil processed by flotation in our excavations was the relatively small number of carbonized plant remains recovered, an average of 1.3 specimens per litre of soil processed. This is a clear indication of the massive amounts of flotation required to obtain a good sample of preserved floral remains from the excavation of at least some Ontario Woodland Tradition sites.

Fecteau concluded that the results of his study confirm the importance of cultigens in the diet of the Ontario Woodland Tradition peoples who lived at Draper and that:

The wide variety of wild plant remains represented (20 types) suggest they supplemented their diet and probably provided raw material for medicine, dye and technological products. Large numbers of six different berries (1,580) suggests that they were systematically collected and stored for year-round consumption (Fecteau 1978, 102).

Fecteau also noted that large numbers of flotation samples remain to be examined and that until this is completed, a full understanding of plant use by the people who occupied Draper will not be fully possible.

Table 2.16. Summary of Floral Remains from 11 Longhouses at the Draper Site (from Fecteau 1979, 19)

| House | 1 | 3 | 4 | 5 | 7 | 9 | 12 | 16 | 17 | 21 | 25 | Total |
|----------------------|-----|-----|-----|------|-----|-----|------|-----|-----|-----|-----|-------|
| House | 301 | 15 | 226 | 1196 | 191 | 447 | 1202 | 216 | 113 | 93 | 347 | 4347 |
| Bean | 4 | 2 | 10 | 6 | 13 | 6 | 4 | 2 | 1 | 1 | 10 | 33 |
| Corn | 4 | 2 | 6 | 6 | 1 | 6 | 4 | 2 | 1 | 1 | 3 | 26 |
| Squash | 3 | 2 | 8 | 1 | 13 | 1 | 21 | 2 | 1 | 1 | 10 | 47 |
| Sunflower | 25 | 4 | 10 | 21 | 13 | 22 | 21 | 3 | 1 | 1 | 10 | 129 |
| Tobacco | 333 | 23 | 250 | 1224 | 204 | 476 | 1227 | 221 | 115 | 94 | 360 | 4527 |
| Total Cuitigens | 19 | 33 | 51 | 55 | 6 | 61 | 170 | 5 | 26 | 8 | 39 | 473 |
| Sumac | 4 | 32 | 4 | 6 | 14 | 4 | 26 | 5 | 5 | 9 | 29 | 226 |
| Elderberry | 4 | 81 | 68 | 17 | 7 | 4 | 3 | 35 | 6 | 8 | 9 | 200 |
| Strawberry | 9 | 60 | 83 | 149 | 7 | 56 | 140 | 140 | 5 | 36 | 7 | 581 |
| Raspberry | 17 | 5 | 79 | 1 | 4 | 2 | 3 | 35 | 6 | 36 | 7 | 581 |
| Blueberry | 17 | 5 | 79 | 1 | 4 | 2 | 3 | 35 | 6 | 36 | 7 | 581 |
| Gooseberry | 1 | 4 | 11 | 1 | 4 | 2 | 5 | 1 | 1 | 1 | 7 | 39 |
| Hawthorne | 1 | 1 | 2 | 2 | 4 | 2 | 5 | 1 | 1 | 1 | 6 | 39 |
| Canada Plum | | 1 | 1 | 2 | 4 | 2 | 5 | 1 | 1 | 1 | 6 | 39 |
| Pin Cherry | | 1 | 1 | 2 | 4 | 2 | 5 | 1 | 1 | 1 | 6 | 39 |
| Choke Cherry | | 1 | 1 | 2 | 4 | 2 | 5 | 1 | 1 | 1 | 6 | 39 |
| Cherry | | 1 | 1 | 2 | 4 | 2 | 5 | 1 | 1 | 1 | 6 | 39 |
| Grape | 50 | 217 | 299 | 256 | 31 | 126 | 346 | 138 | 40 | 53 | 75 | 1631 |
| Total Berries/Fruits | 5 | 18 | 59 | 46 | 2 | 15 | 98 | 1 | 2 | 29 | 2 | 277 |
| Goosefoot | 1 | 4 | 6 | 1 | 4 | 2 | 4 | 1 | 2 | 11 | 2 | 12 |
| Purslane | 1 | 4 | 6 | 1 | 4 | 2 | 4 | 1 | 2 | 11 | 2 | 12 |
| Knotweed | | | 2 | 1 | 1 | 1 | 4 | 1 | 2 | 11 | 2 | 18 |
| Bedstraw | | | | 1 | 1 | 1 | 4 | 1 | 2 | 11 | 2 | 18 |
| Spikenard | | | | 1 | 1 | 1 | 4 | 1 | 2 | 11 | 2 | 18 |
| Thisite | | | | | | 1 | 1 | 1 | 2 | 11 | 2 | 18 |
| Campion | | 4 | 64 | | | | | 1 | 2 | 40 | 4 | 68 |
| Grass | 6 | 26 | 131 | 49 | 3 | 17 | 102 | 2 | 2 | 40 | 4 | 382 |
| Weeds | 6 | 26 | 131 | 49 | 3 | 17 | 102 | 2 | 2 | 40 | 4 | 382 |
| Hickory | 19 | 43 | 36 | 40 | 13 | 54 | 94 | 17 | 12 | 12 | 11 | 2685 |
| Unknown | 19 | 43 | 36 | 40 | 13 | 54 | 94 | 17 | 12 | 12 | 11 | 2685 |
| Seed Total | 109 | 309 | 508 | 412 | 62 | 237 | 588 | 170 | 62 | 114 | 104 | 6891 |
| Specimen Total | 408 | 309 | 716 | 1569 | 251 | 673 | 1769 | 378 | 169 | 199 | 450 | 6891 |

P=Present

One unusual find was “a carbonized wooden disc 44 mm in diameter with a 3 mm hole in the centre” (Fecteau 1978b, 108, see also Plate 2, page 109). No function is known for this artifact, although Josh Garrett has suggested that this could be part of a pump-drill for starting fires (pers. comm.).

A preliminary study was undertaken of the charcoal samples by Melanie Busby, a graduate student at Trent University (1976). Her study took samples from three 1 x 1 m subsquares in Square 235–205 and two 1 x 1 m subsquares in Square 230–205 in Midden 52, the large midden in the Core Village (Table 2.17). Busby provides a modified summary of her findings from the identification of 293 pieces of charcoal. Beech and maple were most common, representing 65.5% of the assemblage followed by elm (13.3%). These species identified are similar to those from Hayden’s excavations except that Busby identified specimens of *Quercus* while King and Crawford identified *Prunus* (King and Crawford 1979, 169–173). The abundance of beech and maple suggests use of firewood from trees killed to create agricultural fields, but also from the beech-maple forests east of Draper not used for agricultural fields as inferred by the distribution of large stands of even-aged pine documented for this area (see page 34). For the three subsquares in Square 235–200, Busby provided distributional data on the charcoal recovered from seven 10 cm levels. The numbers of identifications for each level are not large enough, in my opinion, to make definitive observations. They do, however, suggest that future studies of charcoal from the different middens and flotation samples recovered may provide insights into the firewood used by the occupants of the Draper site. In particular, it would be interesting to determine if there were changes in the kinds of firewood used in different segments of the village as it expanded.

2.10.7.12 SOIL STUDIES

Soil studies were undertaken by two graduate students under the direction of Dr. Roger King in the Department of Geography at The University of Western Ontario.

Frazer Mark, a Ph.D. student of Roger King’s, joined the excavation team in 1975 and undertook the collection of soil samples to create a soils sample bank from which samples could be withdrawn for analysis (1983). He also took auger samples across the site which determined that there were two different soil textures—a sandy loam soil for much of the site and silty clay loam to clay loam soils on the northeastern part of the site (see Figure 2.4) (Bohdanowicz 1978a, b, 19). Reference soil profiles were generated for five different locations on the site to provide characteristics of the soils in areas where there were no pits or burial pits.

Table 2.17. Summary of Charcoal Identifications from Midden 52 at the Draper Site (from Busby 1976, 9, 11)

| Level | Wood Type | Acer (Maple) | Fagus (Beech) | Ulmus (Elm) | Ostrya (Ironwood) | Fraxinus (Ash) | Gymnosperm (Conifers) | Populus Aspen | Tilia (Basswood) | Quercus alba (White Oak) | Quercus rubra (Red Oak) | Juglans (Walnu/Butternut) | Betula (Birch) | Carya (Hickory) | Alnus (Alder) | Total Specimens | |
|-----------------------|-----------|--------------|---------------|-------------|-------------------|----------------|-----------------------|---------------|------------------|--------------------------|-------------------------|---------------------------|----------------|-----------------|---------------|-----------------|-------|
| | | | | | | | | | | | | | | | | No. | % |
| Square 235-205 | | | | | | | | | | | | | | | | | |
| SS 5, 10 & 15 | | | | | | | | | | | | | | | | | |
| 0-10 | No. | 10 | 9 | 4 | 3 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 30 | |
| | % | 33.3 | 30.0 | 13.3 | 10.0 | 3.3 | 3.3 | 0.0 | 3.3 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 0.0 | | 100.0 |
| 10-20 | No. | 8 | 7 | 4 | | 3 | | | 1 | 1 | | | | | 1 | 25 | |
| | % | 32.0 | 28.0 | 16.0 | 0.0 | 12.0 | 0.0 | 0.0 | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | | 100.0 |
| 20-30 | No. | 9 | 3 | 1 | 2 | 1 | | 2 | | 1 | | | | 1 | | 20 | |
| | % | 45.0 | 15.0 | 5.0 | 10.0 | 5.0 | 0.0 | 10.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.0 | | 100.0 |
| 30-40 | No. | 24 | 16 | 9 | 5 | 2 | 1 | | 1 | 1 | | | | 1 | | 60 | |
| | % | 40.0 | 26.7 | 15.0 | 8.3 | 3.3 | 1.7 | 0.0 | 1.7 | 1.7 | 0.0 | 0.0 | 0.0 | 1.7 | 0.0 | | 100.0 |
| 40-50 | No. | 24 | 11 | 6 | 3 | | 1 | | | | | | | | | 45 | |
| | % | 53.3 | 24.4 | 13.3 | 6.7 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 100.0 |
| 50-60 | No. | 6 | 6 | 5 | 4 | 4 | 2 | | | | 1 | 1 | 1 | | | 30 | |
| | % | 20.0 | 20.0 | 16.7 | 13.3 | 13.3 | 6.7 | 0.0 | 0.0 | 0.0 | 3.3 | 3.3 | 3.3 | 0.0 | 0.0 | | 100.0 |
| 60-70 | No. | 3 | 5 | 2 | | | | | | | | | | | | 10 | |
| | % | 30.0 | 50.0 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 100.0 |
| Subtotals | No. | 84 | 57 | 31 | 17 | 11 | 5 | 2 | 3 | 3 | 1 | 1 | 2 | 2 | 1 | 220 | |
| | % | 38.2 | 25.9 | 14.1 | 7.7 | 5.0 | 2.3 | 0.9 | 1.4 | 1.4 | 0.5 | 0.5 | 0.9 | 0.9 | 0.5 | | 100.0 |
| Square 230-205 | | | | | | | | | | | | | | | | | |
| SS 10 & 15 | | | | | | | | | | | | | | | | | |
| Subtotals | | 20 | 31 | 8 | 4 | 5 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 73 | |
| | | 27.4 | 42.5 | 11.0 | 5.5 | 6.8 | 2.7 | 2.7 | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | | |
| Total | No. | 104 | 88 | 39 | 21 | 16 | 7 | 4 | 3 | 3 | 1 | 2 | 2 | 2 | 1 | 293 | |
| | % | 35.5 | 30.0 | 13.3 | 7.2 | 5.5 | 2.4 | 1.4 | 1.0 | 1.0 | 0.3 | 0.7 | 0.7 | 0.7 | 0.3 | | 100.0 |

SS=Subsquare
ID=Identifications

Mark's Ph.D. thesis for the Department of Geography, The University of Western Ontario is entitled *Investigation of the Soils Within and Beneath the Middens of Two Huron Villages* (1983).

Mark's Ph.D. research compared midden soils from the Draper site with those from the Benson site, a Huron-Wendat site occupied about 100 years later than Draper and located 92 km to its north (ibid., 17).

This research involved the comparison of midden soils from these two sites using both field observation of midden strata and chemical analysis of soils from each stratum in the laboratory. Field observations resulted in the identification of "five types of material based on visual appearance. They are tentatively labelled midden matrix, white ash, grey ash, subsoil and charcoal" (ibid., 48).

White ash was considered to be a byproduct of the burning of wood although burning of corn (*Zea mays*) debris is also presented as a possibility, while grey ash was considered to be a product of mixing of organic residues and white ash (ibid., 57). Charcoal layers were found in two middens at Draper and are characterized as "most closely resembles the grey ash material" (ibid., 58).

For purposes of this summary, the most interesting aspect of Mark's study for an understanding of the Draper site is the presence of basal layers of white ash, grey ash, and charcoal in three of the middens (#53, 66, and 56) and the absence of these layers in the largest midden (#52). It would seem likely that the ash and charcoal layers are a result of the initial clearing of the land prior to the construction of the village. A further study of the profiles of other middens excavated at Draper should be undertaken to see if this pattern occurs in them. It would also be interesting to determine the artifact content of the white ash, grey ash, and charcoal layers.

There are other aspects of Mark's study of Draper soils including his study of the Ah horizons both on and adjacent to the site. The reader is referred to his Ph.D. thesis which is available online.

One of the interesting discoveries of Mark's research was that the borrow pit which destroyed part of the Draper site was the result of the construction of the railway beside the site by the Ontario and Quebec Railway Company in 1884 (ibid., 33).

Anne Bohdanowicz, a M.A. student of King's, undertook the study of 105 soil samples "60 pit samples, 29 Draper site reference samples, 15 Draper site burial samples and one unweathered ash sample" (1978a, b, 42). Her goal was to provide "information concerning the nature, origin and use of the features" (ibid., iii) in her sampling from the site. Her study noted higher Ph values were discovered with the

features studied and that there were higher levels of total phosphorous, magnesium, zinc, and calcium which had been enhanced by the addition of wood ash to the soils. The presence of wood ash prevented the study of sources of phosphorous, calcium, manganese, magnesium, and zinc resulting from the occupation of the site.

One of the results of Bohdanowicz' study was the suggestion of "the importance of total P [phosphorous] and exchangeable Zn [zinc] and Ca [calcium] in distinguishing between pits, burial and non-feature sediments at the Draper site" (ibid., iv).

Bohdanowicz also produced a partial map of the Draper site showing the distribution of clay rich soils at the Draper site based on research by Frazer Mark (Bohdanowicz 1978a, b, 19).

Bohdanowicz' thesis was published as Research Report No. 7 of the Museum of Indian Archaeology at The University of Western Ontario to which the interested reader is referred for more details.

2.10.7.13 SAMPLING STUDIES OF MIDDENS AND A LONGHOUSE

One of the advantages of the large-scale salvage excavation of the Draper site was that a number of middens were totally or almost totally excavated. These middens provided a data base which could be used for empirical studies of random sampling designs. These studies were undertaken with Professor David Bellhouse of the Department of Statistics and Actuarial Sciences at The University of Western Ontario.

Bellhouse and Finlayson noted in their 1979 study of selected attributes of rim sherds from six middens at Draper that one of the results of "new archaeology" as espoused by archaeologists (such as Binford 1964, Judge, Ebert and Hitchcock 1975) was a greater focus on research which was problem-oriented as it used a regional approach and probability sampling designs to facilitate the collection of archaeological data (Bellhouse and Finlayson 1979, 105). However, we noted that:

While we believe that the adoption of probability sampling designs may be useful in problem-oriented research, we also believe that the selection of a particular sampling design and an appropriate sampling fraction must be based, at least at present, on an empirical study conducted early in any particular project (ibid., 105).

Accordingly, we used the data from Draper to complete a series of such studies in the hope that these might be useful in planning future investigations of Iroquoian sites in southern Ontario and beyond.

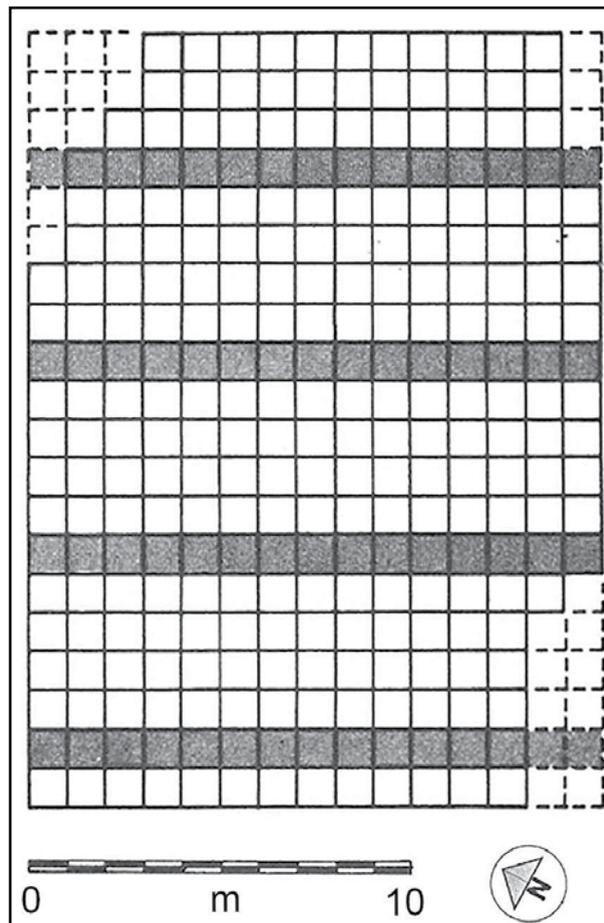
Our first study involved the use of information on seven different attributes of collared rim sherds which we had excavated from six different middens at the Draper site (ibid., 108).

We examined two unique sampling designs: simple random sampling and systematic sampling. Three different sizes of middens were examined: a large midden (#52), three intermediate sized middens (#54, 55, and 56), and two small irregularly shaped middens (#51 and 53). Four different sampling fractions were utilized in the present study: 10–15%, 20–25%, 30–35%, and 40–45% (*ibid.*, 121).

As a result of this study we opted for a rather conservative conclusion of our investigations. We proposed that if we needed to dig other large Iroquoian villages near Draper, we recommended:

1. that 40–45% of the large middens be excavated using a systematic transverse sampling method (Figure 2.22);
2. that at least 60% of the intermediate-sized middens be excavated using a systematic transverse sampling method; and
3. that small middens be totally excavated (*ibid.*).

Figure 2.22: Transverse Systematic Sampling of Midden 52, a Large Midden, at 20% Sampling Fraction (from Bellhouse and Finlayson 1979, 114)



We also noted that the use of such sampling designs might only produce representative samples of collared rim sherds and we realized the need to conduct similar studies for other classes of data such as faunal remains and ceramic pipes which occurred in sufficient numbers to allow such studies.

Our conclusions also noted that Iroquoian village sites such as Draper contained four kinds of archaeological deposits: middens, living floors of longhouses, non-midden-non-longhouse deposits, and palisade deposits. The excavations at Draper resulted in the excavation of a number of undisturbed longhouse living floor deposits and that we planned to expand our studies to include these kinds of deposits.

We cautioned that the results of our studies may not be widely applicable and that future projects needed to utilize a two-phase approach. In the first phase there would be the complete excavation of a number of middens and house structures to allow empirical studies of sampling designs such as we reported on in our paper. After these initial studies it may be possible to utilize specific sampling designs to test other similar deposits on a specific site.

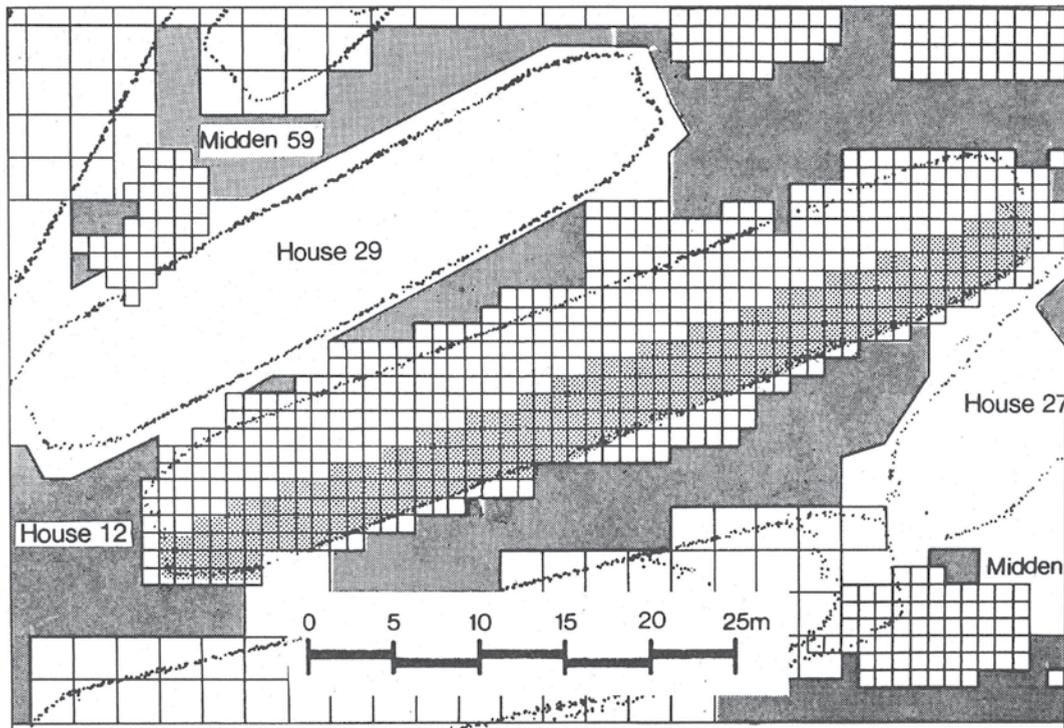
Our study of sampling designs was expanded to determine if representative samples of faunal remains would be recovered using the preferred sampling methods identified in our 1979 study of rim sherd attributes. For this study we used the number of white-tailed deer, dog bones, and bear bones recovered from the same six middens at Draper. One of the conclusions of this study was:

The most encouraging outcome of the study of faunal remains is that if a representative sample of rimsherds were acquired using the results presented in our original study, they would also result in a representative sample of faunal remains (Finlayson and Bellhouse 1986, 5).

The expansion of our sampling studies also included preliminary studies of two longhouses which were completely excavated at Draper. For House 12 we had excavated 427 1 x 1 m squares which produced 342 analyzable rim sherds while House 9 was completely excavated in 2.5 x 2.5 m squares resulting in the recovery of 142 rim sherds.

Our study revealed that “neither simple random sampling nor systematic sampling at a 40–45 per cent fraction are adequate” (ibid., 6). We then considered if the excavation of half of the house longitudinally would obtain an acceptable sample and we found that this would produce an acceptable sample as illustrated in Figure 2.23.

Figure 2.23: Plan of House 12 Split in Two Halves for Sampling Study (from Finlayson and Bellhouse 1986, 25)



We concluded that:

Given the recent observations by Dodd (1984:255) that the features of a long-house are symmetrical in relation to the long axis of the house the excavation of half a house longitudinally results in the collection of representative samples of both settlement features and rimsherd attributes (ibid., 7).

At the end of our paper, we presented a strategy which we thought could be used to sample Iroquoian sites:

Excavations of Iroquoian sites in Northeastern North America over the past decade and a half have revealed that there are a wide variety of new problems which can be investigated when total or almost total site plans are available and large samples of artifacts and debris are available for analysis and interpretation. It is also apparent that such investigations are very time consuming and expensive. Accordingly, in an era of financial restraint in government funding, and of the need to salvage an increasing number of

Iroquoian sites before their destruction by a variety of factors such as urban expansion, it is increasingly necessary to devise sampling strategies which will allow the excavation of portions of Iroquoian sites and still obtain samples which are representative and will allow investigation of problems which require total site plans and data. What follows is a first approximation of such a strategy.

A strategy for the sampling of a large undisturbed Iroquoian village would incorporate the following:

- (1) The proposed project would be undertaken over a period of at least two years to allow empirical studies of sampling to take place between field seasons;*
- (2) At the beginning of the first field season the location and size of all middens would be determined by test pitting and one midden of each size—small, medium and large—would be completely excavated. All washing and cataloguing would be completed in the field and the coding of the basic rimsherd attributes required for the sampling study would be completed in the field laboratory with entry of the data key to disc on an IBM-PC portable computer. The data file would be transferred to a mainframe timesharing computer where the sampling study would be completed using SPATSPAK. This would allow precise determination of the nature and extent of sampling of the remainder of the middens.*
- (3) Three-meter wide test trenches would be excavated across the site area using one meter subsquares. All fill would be screened. Spacing between adjacent parallel trenches would vary with the age and cultural affiliation of the site. For instance the 45 to 55 meter spacing between trenches worked well at the prehistoric Southern Division Huron Draper site where the houses averaged 40.7 m in length (cf Figure 13). A closer interval would be required on historic Huron-Wendat sites where the long-houses are shorter (ibid., 7, 8). Once the location of house walls was discovered, these would be delineated by the strip trenching or by the excavation of selected one-meter squares. This would allow the determination of the length of each house and the delineation of areas whereas yet undetected houses are located. These could be discovered by the excavation of short trenches specially situated to discover such houses. These would be delineated in a similar fashion to those already found. Once all houses were found, an analysis of house size would be com-*

pleted and one house of each size would be completely excavated in one-meter squares. All washing and cataloguing and coding of basic ceramic attributes would be completed in the field laboratory, and a sampling study completed similar to that described above. This would allow a determination of whether it is appropriate to excavate half of the house longitudinally and whether a representative and adequate sample would be acquired. Sample size also becomes an important consideration at this time. For instance, if the excavation of half the house will produce a representative sample consisting of more than 30 sherds, then this sampling procedure could be adopted. However, if it only produced 15 sherds, then the whole floor would have to be excavated to produce an adequate sample. If only 5 sherds were recovered complete excavation would not be warranted since it would be impossible to obtain an adequate sample. Accordingly, each case will have to be assessed independently. Using the data from this study it should be possible to determine whether or not it is possible to excavate part of each house. If it is possible to excavate half a house longitudinally, then this strategy would be used for each house. During the excavation of half of the houses, evidence for overlapping of structures might be found and additional exploration might be necessary (ibid., 7, 8).

2.10.7.14 TRIGGER ET AL. TRACE ELEMENT ANALYSIS OF IROQUOIAN CERAMICS

Trigger et al. (1980) in their innovative study involving the trace-element analysis of 650 rim sherds from 16 Iroquoian sites in Ontario and Quebec determined the chemical composition of these sherds and examined the results in variation within and between the sites. The authors note similarities between sherds from Draper, Benson, and Sidey-Mackay. They conclude that “Until more has been learned about the Draper site and its chronological position, it is impossible to determine if part of its population ultimately might have resettled at Sidey-Mackay, Benson or both” (ibid., 126).

Another part of their study suggested that St. Lawrence Iroquoian sherds at Draper were made locally, not imported from St. Lawrence Iroquoian sites to the east (ibid., 129).

The final part of their study involved an examination of the chemical differences in sherds from different parts of the Draper site as well as Nodwell and Benson. One of the observations regarding the longhouses at Draper which were investigated “suggested that women from a number of different villages may have been living in each of them” (ibid., 130, 131).

2.10.7.15 ANGELE SMITH'S STUDY OF ARTIFACT DISTRIBUTIONS IN HOUSES 12 AND 38.

Another of the most interesting studies of data from the Draper site is Angele Smith's M.A. thesis entitled *Are Settlement Patterns Enough? The Re-evaluation of Assumptions Concerning a Huron Chief's House Using Assemblage Variation and Artifact Distribution Analyses* (1990).

Smith uses data from House 12, identified by Finlayson (1985) as a chief's house based on its length, width, and high densities of internal features such as pits (Table 2.18). For comparison, House 38, a short longhouse was used. Both these houses had their living floors excavated in 1 x 1 m squares and screening through 1.3 cm mesh. House 12 is located in the Core Village while House 38 is located in Segment D, which I had proposed as a northern expansion of the village and therefore not occupied as long as House 12.

Table 2.18. Summary of Data on Houses 12 and 38 at the Draper Site used by A. Smith (1990)

| | House 12 | House 38 |
|---------------------------------|-----------------|-----------------|
| Location | Core Village | Segment D |
| Length | 53.6 m | 26.8 m |
| Width | 7.9 m | 7.7 m |
| Area | 423 sq m | 201 sq m |
| No. Sweat Bath Clusters | 7 | 3 |
| No. Hearth Floors | 9 | 3 |
| No. Small Pits | 99 | 13 |
| No. Large Pits | 2 | 4 |
| Dog burial | 1 | 0 |
| No. Rimsherds | 502 | 64 |
| No. Large Vessels | 14 | 1 |
| No Pipes | 107 | 38 |
| No. Chipped Lithics | 217 | 34 |
| No. Ground and Rough Stone | 109 | 10 |
| No. Bone Artifacts | 101 | 14 |
| No. Mamal Bone Fragments | 1486 | 176 |
| Total Artifacts/Ecofacts | 2,536 | 337 |

Smith looked at the distribution of:

- attributes of rim sherds associated with collar motif, neck motif, and secondary collar motif;
- the size of vessels;
- the categories of pipes and types of pipe bowls;
- categories of chipped lithics;
- categories of ground and rough stone tools;
- categories of bone artifacts; and
- species of mammal bone (ibid., 29, 34, 47, 56, 64, 72, 81).

Smith's analysis of the distribution of the artifacts and faunal remains in House 12. Table 2.19 revealed that these were not randomly distributed while those in House 38 were randomly dispersed. Samples of her distribution maps for rim sherds, bone artifacts, and mammal remains in House 12 and House 38 are presented in Figures 2.24 to 2.29 respectively.

**Table 2.19. House 12 Summary of Artifact Distributions
(from Smith 1990)**

| | Middle Third of Central Corridor | North Third of Central Corridor | Within 1–2 m of Walls | Along Bench Lines | In North Doorway/ Special Purpose Hearth | Random Distribution |
|------------------------|---|--|--------------------------------|-------------------------|--|------------------------|
| Rims | x | x | x | x | x | |
| Pipes | x | x | x | | x | |
| Chipped Lithics | | | | | | |
| Formal Tools | | | | | | x |
| Informal Tools | x | | | | x | |
| Debitage | | | | | | x |
| Ground and Rough Stone | x | | | | x | |
| Bone Artifacts | | | | | | |
| Tools and Ornaments | x | | | | | |
| Debitage | | | | | | x |
| Mammalian | | | | | | |
| Faunal | x | | x | | x | |

Figure 2.24: Distribution of Rim Sherds in House 12 (from A. Smith 1990, 41 With Permission)

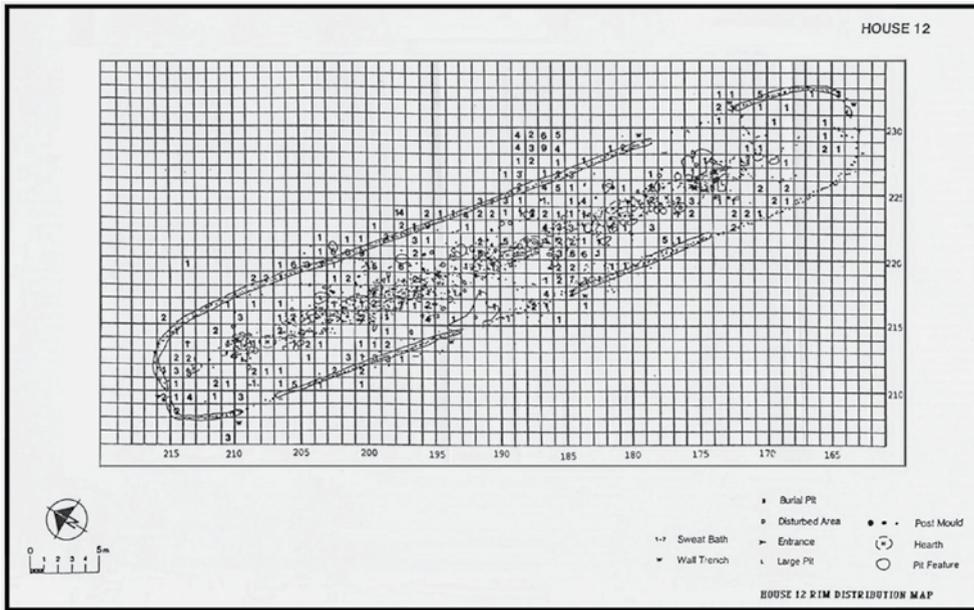


Figure 2.25: Distribution of Rim Sherds in House 38 (from A. Smith 1990, 44 With Permission)

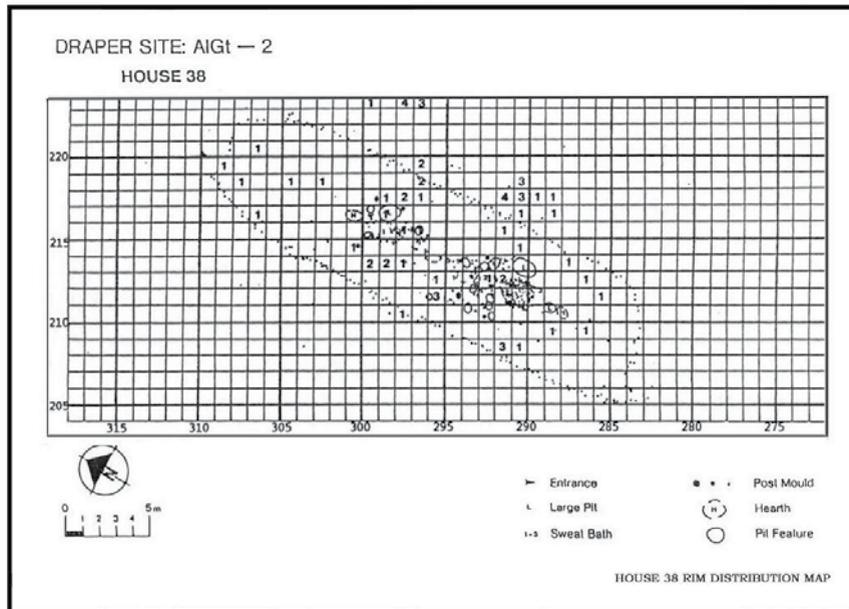


Figure 2.26: Distribution of Bone Artifacts in House 12 (from A. Smith 1990, 75 With Permission)

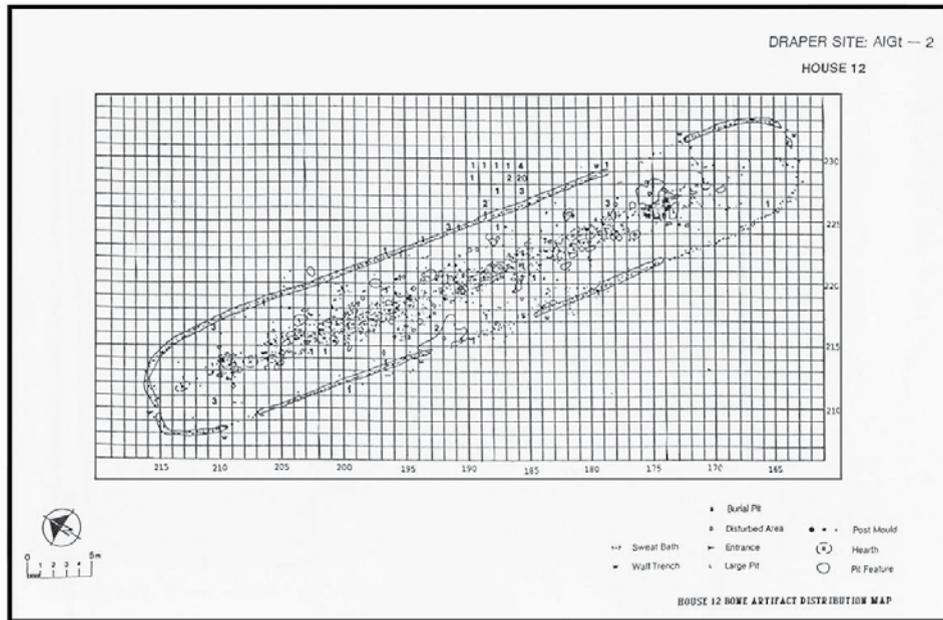


Figure 2.27: Distribution of Bone Artifacts in House 38 (from A. Smith 1990, 77 With Permission)

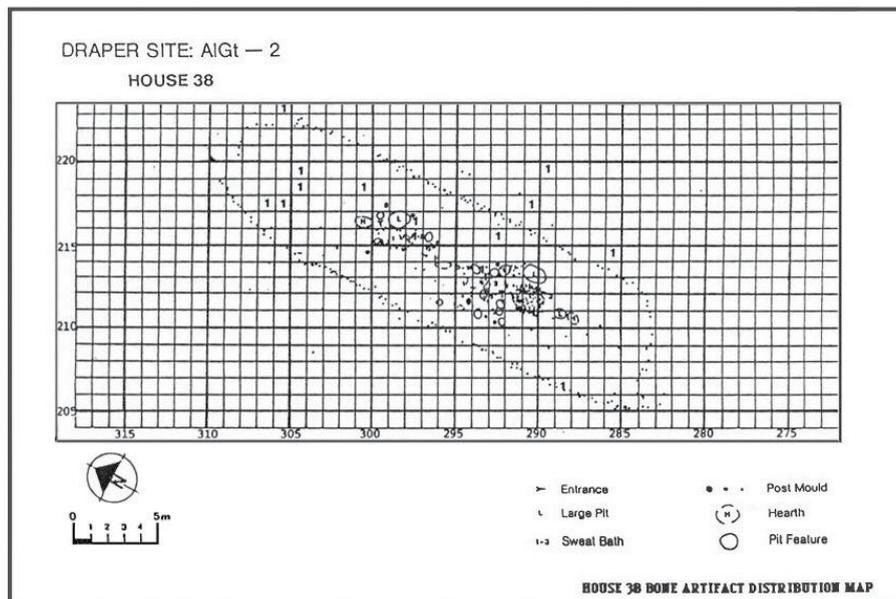


Figure 2.28: Distribution of Mammalian Fauna in House 12 (from A. Smith 1990 83 With Permission)

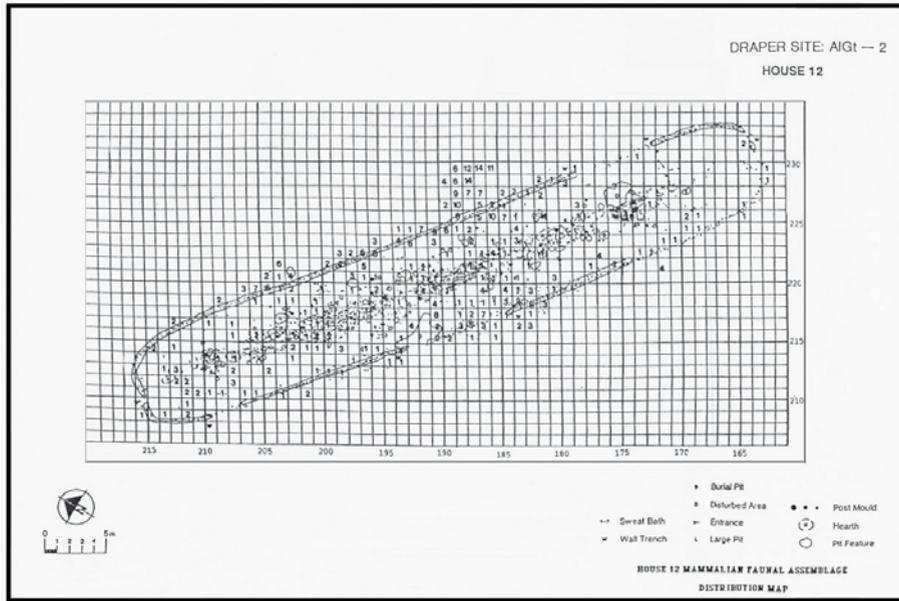
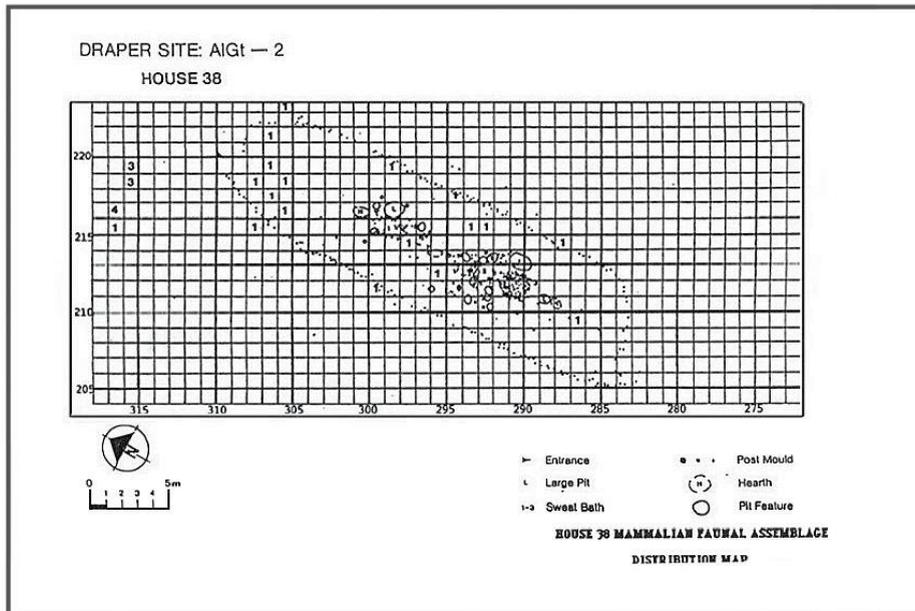


Figure 2.29: Distribution of Mammalian Fauna in House 38 (from A. Smith 1990, 86 With Permission)



Smith noted that “the richest yielding area of the house is through the middle third section of the central corridor” (ibid., 98) and suggests that this is the area of House 12, a chief’s house, occupied by the chief.

Smith also indicated that:

- the greater variety in rim decorative motifs and their locations on the collar, neck, lip, and interior and a greater complexity of motifs may be related to this being the residence of a chief and perhaps a greater variety of influences on pottery decoration also as a result of House 12 being a chief’s house (ibid., 111);
- the unusual types of pipes may be a result of this being a chief’s house (ibid.);
- the conservation of chert suggests that the residence of the chief’s house did not have special access to this raw material of which there were limitations in supply (ibid., 112);
- there was an area of celt manufacture at the north end of the house which Smith believed the trade of which was controlled by the chief (ibid.);
- the large quantities of decorative items such as bone beads were associated with events related to this being a chief’s house (ibid.);
- the kinds and quantities of faunal remains support the interpretation of House 12 as a chief’s house. Of particular note was the presence of relatively large numbers of skull fragments of mammals. Historical documents report that “the heads of animals were reserved for the highest-ranking headman” (Trigger 1976, 85) (ibid., 113); and
- House 38 did not possess the kinds of artifacts and faunal remains which would suggest a person of high status such as a chief (Smith 1990, 109–116).

Smith’s research demonstrates, for the first time, that the kinds of artifacts and faunal remains and their distribution within an precontact Iroquoian longhouse, which has not been contaminated by subsequent activities as encountered by Hayden in House 2 and House 5 in our excavations, can provide additional support for the interpretation of the special purpose of certain houses, such as chiefs’ houses. As I have noted previously, our mapping of distributions of artifacts and other remains within longhouses and middens at Draper was hampered by the high costs of manpower and computer time to produce simple maps of artifact distributions.

The most significant result of Smith’s research is that it demonstrates the need to undertake further studies, not only of Houses 12 and 38 but of the other houses dug at Draper for which there are data on the distribution of artifacts and debris in

undisturbed living floors and the plough-disturbed deposits of houses in the South Field and Structure 42.

After 40 years we now have a mapping program which can provide such maps in a fraction of the time on a personal computer. This is one of the most important avenues of future research using the Draper site collections, especially since there has been, with a very few exceptions, no excavation of undisturbed longhouses which provide such data.

There are two problems with Smith's study. First, she uses artifact data from outside House 12 as being part of the house, which was, in fact, part of the exploratory trench to locate this structure. Given the relatively large number of artifacts from this area, it skews her interpretations of the house. Second, Smith does not examine the distribution of high collared vessels within the house, but rather focuses her attention on the size of pots based on their orifice diameter. Certainly, her observations about the size of pottery vessels is interesting and informative. However, as I determined in my study of high collared vessels from Middleport sites in the Crawford Lake area, high collared pots played a significant role in creating and maintaining alliances between the different Middleport communities in the Crawford Lake area (Finlayson 1998b). In this study I documented that the original Middleport community comprised of the Unick-Rife and Van Edge villages and four of the migrant communities (Chyphar-Winking Bull, Pipeline, Retreat, and Itldu) had relatively high frequencies of high collared vessels which I interpreted as a significant integrating mechanism which allowed the settlement of migrant communities in close proximity to the original Middleport community. Combining Smith's observations with my own about high collared vessels, it will be valuable to examine the high collared vessels in House 12, particularly their distribution. The goal would be to determine if high collared vessels, regardless of their size, were present in significant numbers supporting the notion that these played an important role in activities within a chief's house. Once this is completed, similar observations could be made for other houses with undisturbed living floors such as House 38. Similarly, it will be key to examine the distribution of St. Lawrence Iroquoian and League Iroquois vessels within House 12 and other houses where undisturbed living floor deposits were excavated. In addition, it would be useful to look for and analyze cooking residues of the interiors of both high collared and other vessels in these contexts.

2.10.7.16 KAPCHES STUDY OF SPATIAL DYNAMICS OF IROQUOIAN LONGHOUSES

Mima Kapches is one of the archaeologists who have used the data from my 1985 study of Draper settlement patterns along with similar data from selected other sites in south-central Ontario to undertake a study of Iroquoian longhouses. “The analytical approach developed in this study is termed spatially dynamic and it centers on the examination of the house as a lived-in, actively used and spatially dynamic structure” (Kapches 1990, 49). For this study, Kapches examined the following attributes of 26 longhouses at Draper: total structure area, bench area, hearth area, end cubicle area, total organized space area, and total unorganized space area. The houses represented the following segments of the Draper village: Segment A-9 houses, Segment B-4 houses, Segment C-2 houses, Segment D-5 houses, Segment E-5 houses, and Segment F-1 house.

Kapches’ comparison of the selected attributes in her synchronic study of Draper houses resulted a number of observations. One was that three segments of the Draper site (A, B, and D) were a result of the incorporation of local groups into the village while two segments (C and E) represented the incorporation of non-local groups into the village. Kapches noted that Pearce’s study of the rim sherds from the 1975 excavations at Draper does not provide the specific data required to pursue her interpretation (ibid., 61).

Kapches also suggests that “Based on the assumptions of spatial dynamics, a matriliney is present in all village segments” (ibid., 61). She also noted that some differences might be the result of “subtle tribal variation” (ibid.) and that “variation in organizational details between long and short longhouses which may be a further indication of functional variability” (ibid.). One of Kapches’ conclusions in comparing the Draper and Ball sites using spatial dynamics, was “The majority of structures from both sites indicate occupations within the matrilocality residence system” (ibid., 63).

In comparing Draper with the earlier Pickering houses, Kapches concluded that:

At Draper, all variables are present in predictable frequencies indicating considerable control over the interior layout of the longhouse. In the Draper sample the hearths are standardized in all village segments. In segment A, B, and D bench and end cubicle areas are quite similar. The two village segments that show differences—C and E—both have considerably higher bench areas. If high bench areas are indicative of ceremonial function, the segments C and E have a higher proportion of ceremonial space (ibid., 64).

It is interesting to note that Kapches identifies Segments C and E as being the results of the incorporation of non-local groups into the Draper village and that houses in these two segments had different bench areas which she suggests are indicative of greater ceremonial function. That these separate analyses indicate Segments C and E may represent the incorporation of non-local groups into Draper provides a very useful working hypothesis which needs to be explored using ceramic and other data from the site. The crucial question is whether factors at play within the village which mask the differences in ceramic attributes such that we cannot isolate these.

In short, Kapches study provides further insights into the Draper site and her analyses raise further questions which need to be examined as part of the re-analysis of rim sherds and other data from Draper in the future. It draws important attention to divergent group composition with a village and reiterates that villages such as Draper are comprised of different groups of individuals from different villages or parts of villages.

2.10.7.17 WILLIAMS-SHUKER'S STUDY OF INTRAVILLAGE VARIABILITY IN LONGHOUSES AT DRAPER

Kimberly Williams-Shuker has conducted investigations of Draper site houses using cluster analysis to define different groupings of houses within the site. Attributes studied included:

house size..., bench width, number of rebuilding episodes, number of side entrances (along the long wall of a house), and the density of outer wall posts. Also recorded was the houses' orientation...density of hearths, pits and sweat bath post moulds per structure area; mean spacing between hearths; and number of human burial pits. Following Kapches' (1990) spatial dynamics modes, two variables related to spatial organization were recorded: the proportion of a structure used for end storage facilities and the proportion of house area devoted to accessible floor space (Williams-Shuker 1997, 1).

“These variables were investigated using a hierarchical cluster analysis...using squared Euclidean distances and complete linkage criteria” (ibid., 2). Four groups of houses were defined. Group I involved eight houses (#4, 6, 10, 12, 29, 8, 15, and 5) (ibid., Table 2). Various interpretations for this cluster of houses are presented including two (#8 and 12) as chiefs' houses and all in this group as “founding lineages of the village” (ibid., 2). This interpretation counters my suggestion that, with the exceptions of the

original Core Village and Segment B, the longest houses were placed parallel to the palisades to assist in the defense of the village and that for village segments with more than 216 people there were two chiefs' houses while for those with less than 168 people there was only a single chief's house (Finlayson 1985, 416).

Group II houses were 11, 17 and 45, with 17 and 45 being two of the longest houses in the village (Williams-Shuker 1997, Table 2). A variety of explanations are presented including: "One interpretation is that Group II houses may have been constructed with the goal of providing extra space and access for community activities or council meetings...Alternatively these structural characteristics may represent the houses of non-local groups incorporated into the community" (ibid., 2). As mentioned, I see Houses 17 and 45 as chiefs' houses placed to assist in the defense of the village.

Group III houses (#24, 20, 30, and 41) (ibid., Table 2), include some of the shortest houses which are suggested to represent some sort of specialized purpose within the village. "They may be one of the shorter structures housing families with increased storage obligations identified by Kapches (1990) ...another possibility is that these longhouses served as menstrual huts" (ibid., 2). It is also suggested that menstrual huts may have also provided additional storage for firewood (ibid., 3). This, however, seems unlikely since access to firewood would have been needed on a regular basis, thus requiring access to the menstrual houses. The historical documents for the Huron-Wendat also indicate that firewood was stored under the benches (Tooker 1967, 41). One of the defining characteristics of this group of structures was the low density of sweat bath post moulds (ibid.).

Group IV houses are the largest category. It is proposed that these "represent normal residential use of a longhouse...[or]...newer, smaller households gradually inserted into the site as the community's population grew" (ibid., 3). The problem with the latter interpretation is that it counters the idea that each segment of the village represents an incoming group of individuals representing a village or village segment from elsewhere.

Williams-Shuker's paper represents a significant contribution in our attempts to better understand the longhouses at Draper and at other large villages. Of importance is this observation: "However, a dwelling alone does not wholly represent the material element of the household (Wilk and Rathje 1982). It would be extremely instructive to correlate the longhouse variables analyzed here with the domestic refuse associated with the structures in order to gain fuller insight into Iroquoian household organization and domestic activities" (ibid., 3).

Williams-Shuker's study prompted me to re-examine Williams-Shuker's Group III cluster of structures. As I explain further on, I believe it may be possible to isolate inferred menstrual houses in each of the segments of the Draper site. This has significant implications for estimating the population of Draper and other Iroquoian sites, especially on frontiers where there was a need for these structures to be within the village.

Williams-Shuker's study also illustrates the value to detailed descriptions of archaeological data, such as the settlement pattern data from Draper, which provides other scholars with the basic information to investigate matters of interest to them.

2.10.7.18 TEST TRENCHING AND THE BLOCK EXCAVATION OF UNDISTURBED AND PLOUGH-DISTURBED HOUSE DEPOSITS

The excavations at Draper used sixteen 5 m wide and two 10 m wide test trenches excavated using a variety of methods to define the location of 24 of the 40 longhouses eventually investigated.

In the Main Village:

- Test Trench 1 discovered Houses 7, 3, 4, and the ends of Houses 5 and 6 which extended into the plough disturbed part of the site. Most of House 5 was excavated in 1 x 1 m squares and most of House 6 in 2.5 m x 2.5 m quadrants of 5 m squares with undisturbed living floor screened to collect artifacts. The trench also located palisades surrounding the Core Village and Segments C, D, E, and F.
- Test Trench 2 confirmed the location of Houses 1 and 2, discovered Houses 9, 10, 11, 24, 17, and 14. All of House 9 and most of House 11 and part of House 10 were excavated with living floor screened in 2.5 x 2.5 m quadrants of 5 m squares including the quadrants in this test trench. While completing the excavation of House 9, House 15 was discovered which was also excavated in 2.5 x 2.5 m quadrants. This trench and its extensions located the palisades around the Core Village and Segment D.
- Test Trench 3 revealed the presence of Houses 16 and 18–21. Most of Houses 19 and 20 and parts of Houses 16, 18, and 21 had their undisturbed living floors excavated and screened in 1 x 1 m squares. It also delimited the palisades around the Core Village and Segment B.
- Test Trench 4 was strategically placed to locate a house between Trenches 1 and 2. Its 1 x 1 m squares were excavated with the fill being screened. This led

to the predicted discovery of House 12 which was completely excavated in 1 x 1 m squares.

- Trench 5 showed the location of the palisades surrounding Segment F and the fence at the north end of the South Field houses.
- Test Trench 9 was also strategically placed to locate houses between Trenches 1 and 2 and its 1 x 1 m squares were screened. This discovered House 38 which was completely excavated in 1 x 1 m squares along with a large area to the east which contained no houses.

In the South and West Fields:

- Trenches 6, 7, 8, and 10–18 were excavated in the agricultural fields with power equipment revealing the presence of Houses 33, 36, 37, 39, and 40, parts of which had the plough-disturbed topsoil excavated and screened in 2.5 x 2.5 m squares.

For Structure 45:

- Forty-nine 2.5 x 2.5 m squares of plough-disturbed topsoil were excavated and screened in the area where there was a scatter of artifacts found during the 1977 controlled surface pick-up of the fields west and south of the Main Village.

The use of these test trenches and the strategic placement of some resulted in significant insights into the locations of houses and palisades and allowed informed decisions to be made about which houses could be investigated through the excavation of 1 x 1 m or 2.5 x 2.5 m units in areas of undisturbed or plough-disturbed site.

2.10.7.19 OBSERVATIONS ON INTER AND INTRA-SITE COMPARISONS

The aforementioned review has provided significant observations on the samples of artifacts from different parts of this precontact Iroquoian site and our ability to undertake intra- and inter-site comparisons.

Pearce, in his study of the 1975 sample of rim sherds from Draper, noted the very significant differences in selected attributes for six houses which had parts of their undisturbed living floors excavated in 1 x 1 m squares or 2.5 x 2.5 m quadrants. The variation in these selected attributes ranged from 3.2% to 23.2%. Pearce also stressed that most of the analyzable rim sherds from the six houses are from houses with substantial excavation of undisturbed living floors. This suggests that the excavation

of plough-disturbed houses with an investigation of only features below the plough zone will produce only limited samples which will not be adequate to undertake inter-house comparisons. As Pearce cogently observed, “it could be stated that after almost a century of archaeological work in Ontario, we still do not understand the ceramics of the Ontario Iroquois” (1978a, 72). Yet, more than 40 years after this statement by Pearce, it remains ignored while increasingly speculative interpretations of local, regional, and interregional relationships of Iroquoian communities are presented with no consideration about whether the samples of ceramics being used are truly representative of the sites, or parts of sites, excavated.

Two of the most interesting results of my review of the Draper site reports relates to the number of complete artifacts which were recovered from middens and the number of sweat bath post moulds in the houses:

1. Pearce noted “that 90.8% of the stone pendants and 83.9% of the stone discs were found in middens. These artifacts represent non-broken, usable decorative and leisure time items which had been discarded or deposited amidst the village refuse” (1985a, 18).
2. Pearce’s intra-site comparisons also revealed that middens produced 62.6% of the complete celts (1985a, Table 23).
3. Pearce goes on to report that “Von Gernet (1985) found in his analysis of the Draper site pipes that approximately 50% of the non-broken pipes (including complete effigy pipes) were found within middens” (Pearce 1985a, 18).
4. And finally, Pearce observed that “over 85% of the modified deer phalanges came from middens” (McCullough) (Pearce 1985a, 18).

I also note that an examination of the Draper site artifact catalogue revealed that 82.0% of all bone beads were found in middens, 13.7% in houses, and 4.3% had no provenience.

These observations require an explanation. I hypothesize that complete artifacts (stone pendants, stone discs, celts, pipes, and modified deer phalanges) were discarded in middens to create a demand for new items, thus providing a need to acquire these items from others through trade. I am suggesting that this represents a variation of the need for trade as documented by Napoleon Chagnon whereby some villages claimed not to be able to manufacture certain items (e.g., ceramics), thus requiring alliance formation and maintenance which provided the needed items. In this scenario, trade for these items would provide one mechanism to maintain the

coalescence of the four villages which eventually created the Draper site (Chagnon 2013). This hypothesis needs to be tested by examining the numbers of complete artifacts in middens in other Iroquoian sites which are not Coalescent Villages and would not require such disposal practices to facilitate integration of the village.

In a similar vein, I note the documentation of 18,775 sweat bath post moulds in 92% of the houses in the Draper Main Village except Houses 20, 23, 24, 31, 32, 41, and 43, the latter being only partially excavated. Clearly, sweating was a very significant way of integrating the men of the village.

In order to further explore these observations, it is necessary to review our current knowledge of the occupation of Duffin Creek watershed by Ontario Woodland Tradition peoples.

2.10.7.20 DISSEMINATION OF KNOWLEDGE ABOUT THE DRAPER SITE AND ARCHAEOLOGICAL WORK AT THE NEW TORONTO INTERNATIONAL AIRPORT

Given the significance of the Draper site archaeological project, considerable efforts were expended to disseminate knowledge gained from the project. There were two aspects to this. First, a wide range of reports and articles were published. This included monographs on settlement patterns (Finlayson 1978, 1985), rim sherds (Pearce 1978a), miscellaneous ceramic objects (Pearce 1978b, 1985b), juvenile ceramics (Pearce 1978c), pipes (Von Gernet 1982 a, b), chipped stone (Poulton 1985), ground and rough stone (Pearce 1985a), modified deer phalanges (McCullough 1978b), floral remains (Fecteau 1978b), soils (Bohdanowicz 1978b), and the Robin Hood site (Williamson 1983).

In addition, four M.A. theses, one M.A. research paper and two Ph.D. thesis were written on various aspects of the Draper site and associated investigations at the Pickering Airport. Included were theses on modified deer phalanges (McCullough 1978a), pipes (Von Gernet 1982a), soils (Bohdanowicz 1978a) and (Mark 1983), the Spang site (Carter 1981), the Robin Hood site (Williamson 1979), and bone artifacts (Jamieson 2016). Independently, a study of the Draper site burials was undertaken by Crystal Forrest (2005).

Journal articles or articles in edited monographs were published: a preliminary report (Finlayson 1975a), on sampling (Bellhouse and Finlayson 1979; Bellhouse 1979), burials (Williamson 1978c; Forrest 2010), pipes (Von Gernet 1982c), ceramic attribute analysis (Finlayson and Pihl 1980a), Iroquoian communities (Finlayson and Pearce 1989), and evidence for culture contact (Finlayson and Pihl 1980b).

Unpublished conference presentations included Finlayson and Bellhouse (1986).

Reports on various aspects of the work were filed with the National Museum of Man, now Canadian Museum of History: Finlayson and Pearce (1978), Finlayson (1978a, b, c).

A final report draft, handwritten, on the Draper site rim sherds was submitted by R. Pihl (1984). An incomplete copy, currently in my possession will be filed with the Museum in Hull.

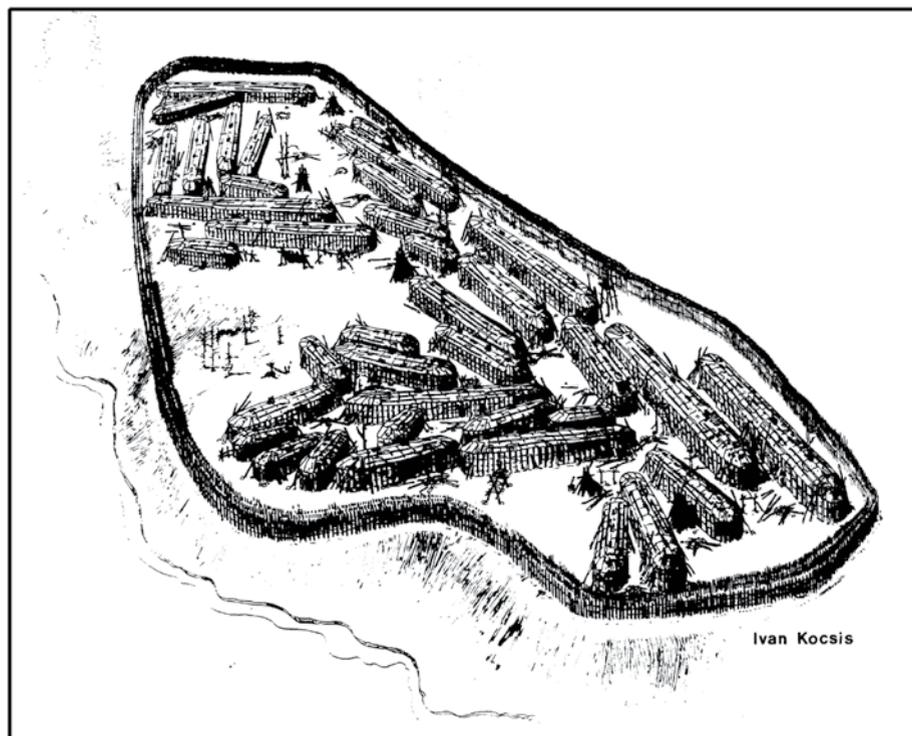
Of equal importance has been the dissemination of information to the public using a variety of media. During the 1975 excavations, the National Museum of Canada, National Museum of Man, Archaeological Survey of Canada, and National Film Board of Canada produced a movie entitled *To Know the Hurons: An Experiment in Rescue Archaeology* (1978). Subsequently a multi-media kit was produced also called *To Know the Hurons* (1980). This kit included four sound film strips, teachers' manuals, slides of artifacts, and the excavation and casts of artifacts. Both these projects won international awards.

The Museum of Man also published a Canadian Studies Report, *The Draper Site* in both English and French (Finlayson 1979a). Through the Museum of Indian Archaeology (London) at The University of Western Ontario, we published four newsletters: one on the Draper site (Finlayson 1979b), two on the use of computers in archaeology (Finlayson and Jansen 1979c; Gibb 1992), one on the archaeological surveys at the New Toronto International Airport (Poulton 1980), and one comparing the Keffer, Lawson, and Draper sites (Smith 1986). The university's Alumni Association published a story in its Alumni Gazette (MacLean 1975) and *Early Man*, an American magazine, published a short article on the copper finger ring (Fagan and Carlson 1982). The Draper site has appeared in numerous textbooks. Most important is the textbook, *Images of the Past* by T. Douglas Price and Gary M. Feinman, now in its 8th edition (2020). Draper also appears in *Archaeology of Prehistoric North America: An Encyclopedia* (Finlayson 1998a).

Museum staff worked with staff from the Ontario Science Centre in the creation of a display for their Native Heritage Program in the summer of 1976. In part, this involved the scale model reconstruction of House 3 at the Draper site by one of the centre's model builders. Subsequently, this model was incorporated into the University's exhibit at the Western Fair in September 1976 and then incorporated into exhibits in the museum's galleries. As a further step in the revitalization of the Museum of Indian and Pioneer Life at The University of Western Ontario, a temporary photo exhibit about Draper was installed in Weldon Library in the fall of 1976.

As part of the process of conveying the nature of the Draper site to students and the public at large, I commissioned Hamilton artist Ivan Kocsis to produce an artist's conception of what the Draper site may have looked like (Figure 2.30). This bird's eye view was used as the cover and title page illustration on my 1985 volume on settlement patterns at the Draper site (Finlayson 1985), appears on the cover of this book, and has been used in a large number of text books on archaeology with permission of the artist, the museum in London, and/or the Canadian Museum of History in Hull, QC.

Figure 2.30: Artist's Conception of the Draper Site (from Finlayson 1985, Cover Illustration, Artist: Ivan Kocsis)



In his *Current State of Huron Archaeology* (1996), Peter Ramsden has noted that:

This image and the archaeological interpretations that lie behind it, have appeared in numerous popular as well as scholarly works and textbooks. What is less widely understood is that several quite different reconstructions are possible, but the way some parts of the site were excavated makes it impossible to discriminate archaeologically between such reconstructions (1996, 106).

Ramsden's argument may be true. However, I have argued that two of the houses at Draper had been shortened during their occupation and that these shortenings had been addressed in my calculation of the estimated populations of the village.

I would agree with Ramsden that there may be other possibilities in the occupation of various houses at Draper, but until there has been a full investigation of the existing data, something still not available after 40 years and something beyond the capability of this volume to achieve, the matter remains open to discussion.

It was my intent in commissioning Ivan Kocsis, to convey to the public some impression of what Draper may have looked like. It was public education designed to create a greater awareness of Ontario archaeology and what archaeology can contribute to our knowledge of the occupation of southern Ontario by Indigenous peoples in the past. The widespread use of this image provides evidence that my goal of public education has been a success. I would note that a similar artist's conception of the Nodwell site (James V. Wright 1974), also by Kocsis, provides an interesting contrast to the Draper illustration (Finlayson 1998bl, 13).

I was pleased that a new artist's conception of the Draper site is part of the new exhibits at the Canadian History Museum in Hull.

2.10.8 Chapter Summary

This chapter has, for the first time, presented an overview of most of the studies undertaken on the 1975–1978 excavations at the Draper site by those who undertook the studies as employees or as graduate students. It also reviews the work of those researchers who have used the published data for their own studies. It is the first time I have had the opportunity to review all the work at Draper for this purpose. Further, I spent parts of two weeks at the Canadian Museum of History going over most of the Draper site collections as part of this review. This was the first time I had the opportunity to view the entire collection.

The above-mentioned review prompted me to re-examine certain aspects of our work at Draper. In presenting this, it must be remembered that more than 40 years ago I was a young archaeologist just beginning my studies of the Ontario Iroquoians, having done my Ph.D. research on Middle Woodland hunters, gatherers, and fishers (Finlayson 1977). Further, it was a time when modern salvage excavations were just beginning with work by James V. Wright at Middleport substage Iroquoian Nodwell site and large-scale research excavations by Milt Wright and Paul Lennox, students of Bill Noble's, at the Neutral Iroquoian Walker and Hamilton sites. At these sites,

settlement pattern data were plotted by hand and artifact descriptions and analyses were done using traditional manual techniques.

At Draper we faced a huge challenge, to completely excavate what was thought to be 2.3 ha (5.7 acres) which was actually found to be composed of three components with 3.42 ha of excavation, with much of the site being undisturbed by farming activities. As noted previously, we developed custom computer programs to process catalogue data and map settlement pattern data. We also created codes for the description and analysis of artifacts and ecofacts by computer using SPSS. This was one of the first times in Canada that a full range of computer applications were applied to such a massive archaeological project.

In keeping with the then standards of archaeological research and reporting, our prime objectives were to provide detailed descriptions and analyses of as many of the classes and categories of artifacts as possible. As described in this chapter such detailed publications were produced for settlement pattern data (Finlayson 1976, 1985), the rim sherds from the 1975 excavations (Pearce 1978, a), the miscellaneous ceramic objects from both the 1975 excavations, those from the combined 1975 and 1978 work (Pearce 1978b, 1985b), the juvenile vessels from the 1975 excavations (Pearce 1978c), the smoking pipes (Von Gernet 1982a, b, 1985), the chipped stone (Poulton 1985), the ground and rough stone (Pearce 1985), the modified deer phalanges (McCullough 1978 a, b), carbonized plant remains (Fecteau 1978b), the burials (Williamson 1978c), and soils (Mark 1983; Bohdanowicz, 1978 a, b). There was also a graduate thesis written on the bone artifacts (Jamieson 2016). Reports were also prepared on human bone fragments (Cooper 1978, 1984) and charcoal (Busby 1976) and part of the faunal remains (T. Burns 1979).

Pioneering efforts to study sampling designs were undertaken by Finlayson and Bellhouse (Bellhouse 1979; Bellhouse and Finlayson 1979; Finlayson and Bellhouse 1986).

Given the large areas of houses and one non-house area subject to excavation in 1 x 1 m squares or 2.5 x 2.5 m quadrants of 5 m squares, my intent was to undertake detailed studies of the distribution of artifacts and ecofacts particularly in the longhouses in a fashion similar to pioneering studies by Tyyska in Huronia (Tyyska 1969) and Hayden at Draper in 1973 (1979). While a few computer plots were generated (e.g., Finlayson and Jansen 1979; Finlayson 1985, 28; Gibb 1992) we found that the costs in terms of labour and computer time were beyond our capability at that time. Accordingly, it was of considerable significance that Angele Smith undertook

a detailed study of the distribution of selected artifacts in Houses 12 and 38 in her 1990 M.A. thesis.

It is also essential to note the important studies by Alexander von Gernet in matching pipe fragments from different parts of the Draper site (1982 a, b, 119, 123) and of other distribution of pipe fragments at Draper (e.g., 129, 139, 141).

Observations on the distribution of some of the artifacts were made by McCullough (1978 a, b) and Pearce (1985). There will be more discussion of these herein.

While we made very good progress on most of the studies of the Draper site artifacts and ecofacts, there were some challenges. We simply did not have the funding to complete some of the studies. Another problem was the final analysis of all rim sherds from the excavations. This task was delegated to Rob Pihl. Unfortunately, Pihl left the employ of the museum and subsequently submitted a handwritten report on his study (1984). A review of this revealed major inconsistencies with other studies and the report was shelved.

We also were unable to undertake the study of the estimated 1,039 castellations from the site.

We were unable to undertake the study of all the faunal remains. A large sample of the mammal bones were studied (T. Burns 1979) but this probably represents less than half of the mammal bones recovered. None of the other bones—fish, bird, amphibian, or reptile—have been studied.

It is also important to note that other researchers have used the Draper site data for their own research. Included is work by Trigger et al. (1980), Kapches (1990), Williams-Shuker (1997), Forrest (2005, 2010), and Fox (1981, 2004).

It is worth noting that it had been my intention, at the end of the excavations at Draper in 1978, to focus my time on the completion of all studies on Draper. However, such was not to be the case. Shortly after the completion of the excavations, Col. Tom Lawson, who had donated the Lawson site to The University of Western Ontario and who served as Vice-President of the newly revitalized Museum of Indian Archaeology, came forward with the offer of significant funding to build a new museum beside the Lawson site and to endow its operation. Accordingly, a significant amount of my time after the completion of the excavations in the fall of 1978 had to be devoted to the construction and operation of the new Lawson-Jury Building beside the Lawson site which opened on May 21, 1981.

However, it must be stressed that one of the most significant outcomes of the work at the Draper site and the New Toronto International Airport was the revitalization of

Wilfrid Jury's Museum of Indian Archaeology and Pioneer Life at The University of Western Ontario. This museum became a major centre for archaeological field research, laboratory analysis, and publication until my retirement in 2001.

There are three aspects of the review in this chapter which are worthy of special discussion. First, was our systematic test trenching to gain preliminary information on the location of longhouses and palisades within the site and the use of this information to select certain longhouses for block excavation of undisturbed living floor deposits and one large open area to explore the use of such sites. We also used this to collect information on the productivity of plough soil over Structure 42 and some of the houses in the South Field.

Second, I was able to assemble the observations of several of the analysts of various artifact categories about differential distributions of artifacts in middens, living floors and pits within longhouses.

Third, I was also able to further explore observations made by other researchers regarding their studies of the Draper site data. Of particular value was the work by Bowman (1974, 1979), Fox (1981, 2004), Kapches (1990), Williams-Shucker (1997), and Trigger et al. (1978).

Based on the examination of this previous research at Draper I became aware of a series of issues which would provide new insights into the interpretation of the Draper site and its significance as a very large, expanding Iroquoian village. These matters are the focus of Chapter 3.

Chapter 3

New Perspectives on the Draper Site

Comprehensive review of the various studies of the Draper site reveals the magnitude of the artifact samples and settlement pattern data which were recovered during the investigations at the site between 1975 and 1978 and the wide variety of studies of these, not only by those directly working on the project, but by graduate students and other archaeologists who have used the descriptive data presented to pursue their own research interests. In this chapter, my intent is to focus on what I believe to be some of the most significant new perspectives on Draper based on this review.

There are other matters of significance particularly relating to the methods of excavation of the site and numbers and distribution of artifacts both in the undisturbed living floors of the houses excavated and the areas adjacent to them as well as the quantity and distribution of artifacts contained in the plough-disturbed deposits of the houses excavated in the South Field and Structure 42. These topics have been touched upon in the previous chapter, but more studies need to be completed before the ultimate significance of these detailed investigations, limited as they were more than 40 years ago, can be established to assess exactly how much artifact and settlement pattern data have been lost by the limited investigation of plough-disturbed soils on the many dozens Ontario Woodland Tradition sites which have had these soils removed by power equipment with no attempt to collect the artifacts and data therein. This remains a subject to be pursued in other venues.

3.1 Changes in the Interpretation of Draper Site Settlement Pattern Data

There are advantages in revisiting analyses that were undertaken many years ago. In this instance, I reviewed my interpretations of some of the Draper site palisades and house structures which were presented in 1985 on Draper site settlement patterns. My research and writing of that volume were undertaken during a six-month sabbatical from my duties as Executive Director of the London Museum of Archaeology. As I have found from revisiting the research for my Ph.D. dissertation on the Saugeen culture

occupation of southwestern Ontario (Finlayson 1977), it is relatively easy to see things that were missed or misinterpreted and perceive new things after more than three decades of additional field analysis, report writing, and advances in archaeological method and theory. Thus, new insights are generated.

In examining the Draper site settlement pattern data, I discovered four instances where I now see new interpretations which provide fresh insights about the Draper village and its expansion. These involve the location of the palisades surrounding Segment E of the village, the location of House 22, the length of House 43, and the inclusion of two inferred houses destroyed by the creation of a borrow pit in the 19th century for fill for the construction of the railway east of the site.

The first reinterpretation involves the position of the palisades along the northeastern edge of the village where it traverses the gulley leading to Duffin Creek. My first inkling of this issue was brought to my attention while working with computer animator, Rick Fisher, about 2003. In discussing the creation of animations of the Draper sequence of expansions, Rick produced a graphic of the Core Village which emphasized that the Core Village palisades had been set back 30 m from the break in slope to the northeast. While I had described this at the time, I had not really considered it in detail. Rick asked me why this happened. I have thought about his question over the years since then and it finally occurred to me that the setting back was intentional in ways beyond which I had originally thought. While it may have provided an open space in which attackers would have to cross to reach the palisades, I realized that it also provided the pre-planned opportunity to add Segments B (and C) to the village in such a way that the five to seven houses added in Segment B and the three houses added in Segment C significantly changed the layout of the village. In the Core Village, houses were placed such that there were two groups of houses with different orientations suggesting the presence of two clan segments within this part of the village. But the houses played no part in the defense of the village, which relied on four rows of palisades with catwalks attached to selected parts of the palisades on its southwestern edge.

It is difficult to ascertain the extent to which the Core Village was pre-planned to allow future expansions. The setting back of the original village 30 m from the top of the bank does seem to indicate pre-planning for the addition of Segment B, while the placement of the two longest houses toward the centre of the Core Village seems to indicate a lack of concern with defensive consideration in the placement of the longest houses on the outer edges of the village, something seen in all later additions to the

village. It is worth noting that the process of village expansions—the relocation of palisades, the original visitor's hut, the expansion of houses, and the building of new palisades, sometimes with lookout platforms—would have been a massive undertaking by both the existing residents and the newcomers. In and of itself, this would have served as another mechanism to integrate the newcomers into the village.

However, with the addition of Segments B and C, the houses were placed to create two “plazas” and to considerably reduce access to the expanded village by decreasing the spaces between adjacent houses. When reconsidering this 30 m setback, I also reexamined the placement of palisades and realized that I had erred in where the palisades from Segment E (and ultimately Segment F) joined the palisades surrounding the Core Village. In the 1985 publication, I had these rows of palisades extend from northeast of House 31 to the Core Village palisades south of House 21. Yet, upon further examination of the site plan, I discovered that there was no evidence to support this since the rows of palisades at the northeast corner of the Core Village did not extend southeast to connect with the palisades surrounding Segment E. Therefore, the proper interpretation is that the palisades surrounding Segments E and F joined the palisades surrounding Segment B. This is very significant in that it means that Segment B had to have been constructed prior to the addition of Segment E. This requires a reinterpretation of the sequence of expansions of the village, something which is detailed in Section 3.3. In retrospect, I find this interesting in that the artist's concept of the Draper site prepared by Ivan Kocsis shows this same placement of palisades, again something that I missed in my writing more than 30 years ago.

As you will see below, this change in the placement of palisades offers new information which, when combined with observations of other analysts, provided the impetus for a new interpretation of the sequence of expansions of the Draper site.

My second misinterpretation was in the assignment of Structure 22 to Segment E of the village. I interpreted House 22 as a small structure used to host visitors to the village. A closer examination of the rows of palisades surrounding Segment E of the village revealed that one corner of Structure 22 is superimposed on the palisades surrounding Segment E. This means that Structure 22 is really part of Segment F of the village. A reconsideration of this results in the conclusion that visitors' structures, one in the Core Village and one in Segment F, occur in conjunction with four rows of palisades and with the presence of catwalks associated with these four rows of palisades. This, then, suggests that the Core Village and Segment F were occupied at a time of increased warfare where the occupants of the village originally used and

returned to the use of four rows of palisades and that housing of visitors took place in a structure within the palisades. Further, the lack of such structures within the village when it was comprised of the Core and Segments B to E suggests that Structure 42, located 60 m southwest of the village, could have been used to house visitors at these times. This raises the question about the nature of the function and artifact assemblage associated with Structure 42, something not attempted in my 1985 volume, but will be considered in a preliminary fashion herein.

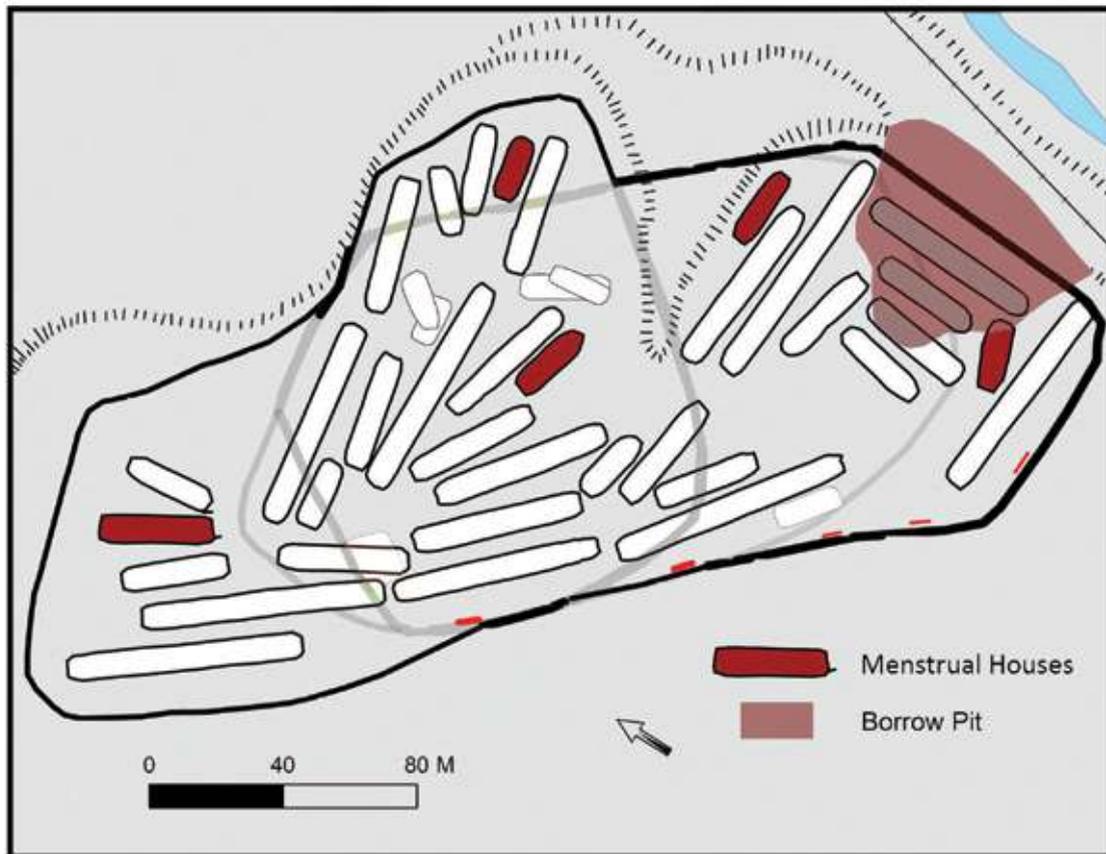
The third error was that I did not recognize the change in the direction of the wall posts of House 43 indicating that the end of the structure was near the end of wall posts which disappeared due to the presence of the borrow pit. This now leads me to deduce the presence of two additional longhouses which paralleled House 35 and the inferred four rows of palisades to the northeast. In creating these two inferred houses, I placed one long longhouse parallel to the four rows of palisades, a pattern of placement of long longhouses noted in all other parts of the Draper village except the original Core Village. This provided new insights into the ultimate plan of the village and the estimated population of Segment F and the entire village.

3.2 Menstrual Houses at the Draper Site

One of the most interesting studies of Draper site houses using my 1985 publication was undertaken by Kimberly Williams-Shuker in a paper entitled *An Analysis of Intravillage Longhouse Variability at the Draper Site* (1997). Her cluster analysis of selected data from Draper site houses suggested that her Group III houses may represent menstrual houses used to segregate women in the village. This study suggested that Houses 24 and 30 in the Core Village, #20 in Segment B, and #41 in Segment D served this special function. This prompted me to further examine the houses' patterns at Draper. I noted that one of the distinguishing characteristics of this group of houses was a lack of sweat bath post moulds in all houses except #41. However, a closer examination of what I originally defined as a cluster of sweat bath post moulds in House 41 may simply be an extended cluster of post moulds. I also noted that House 31 in Segment E and the partially exposed, partially destroyed House 43 in Segment F, also had no sweat bath post mould clusters. Since sweating was documented as being a male activity, a lack of sweat bath post moulds in the Group III houses defined by Williams-Shuker along with Houses 31 and 43, supports the interpretation as menstrual houses. I tend to exclude House 30 from this group of structures since it, along with House 32, seems to have played a role in reducing access to the plaza in which Midden 54 is located.

Given this explanation, all segments of the village except Segment C have structures which can be interpreted as menstrual houses as illustrated in Figure 3.1. As Williams-Shuker notes, the identification of such structures can significantly impact estimates of the populations of villages such as Draper.

Figure 3.1: Menstrual Houses at the Draper Site



As is detailed later in this section the exclusion of population estimates for Houses 24, 20, 41, 31, and 43 would reduce the total estimated population of Draper after all expansions of houses from 1,944 individuals to 1,752 individuals. This suggests that a failure to identify menstrual houses at Draper would result in an over-estimation of its population by about 10%.

This consideration of William-Shuker's exploration of the presence of menstrual houses at Draper, and the presentation of further data in support of this, raises the need to search for such structures at other Iroquoian villages and recognize the problem of over-estimation of population estimates of palisaded villages.

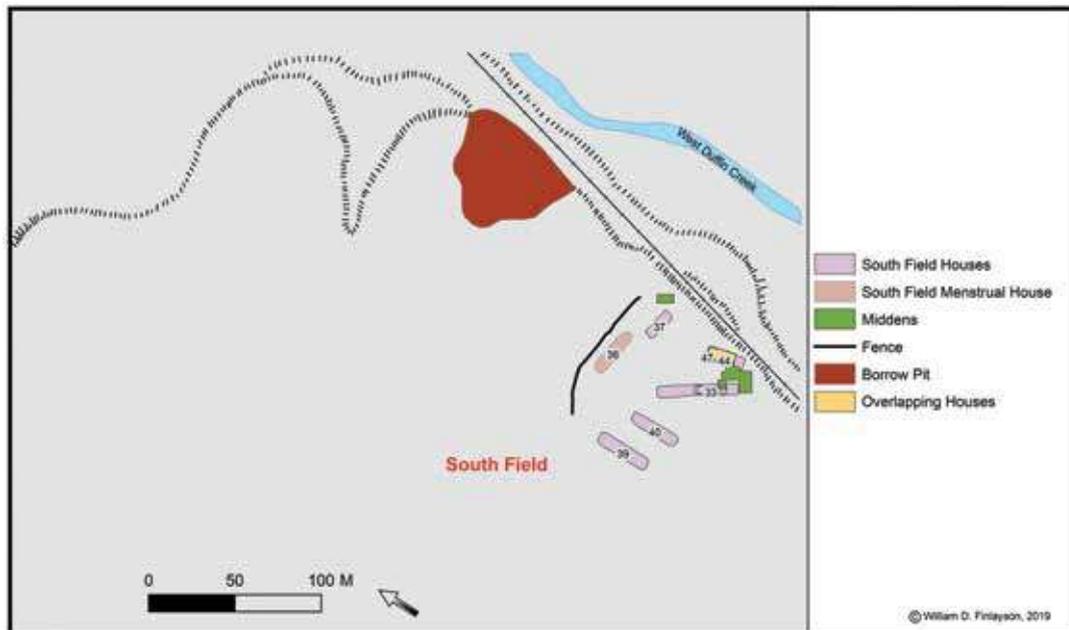
It is worth recognizing that Williams-Shuker notes that “Menstruating women among the Iroquois were secluded (Snow 1994)” (ibid. 2).

Given the arguments presented in Section 3.4 that Draper was a frontier village and that village defense was a very high priority suggesting the need to protect the village from attacks from Iroquoians to the east, it may be that the placement of menstrual houses within Draper is yet another result of the defensive measures taken to protect the villagers. If this were the case, the placement of menstrual houses within the village may be directly related to the frontier position of Draper and not a concern in many other Iroquoian villages in southern Ontario. However, this matter should be considered in future discussions of Iroquoian settlement patterns.

Joyce Wright has also identified the presence of a “woman’s house” at Maynard-McKeown. In particular, she suggests that “the presence of pipe fragments in the proposed women’s house [was] intentionally included as symbolic tokens of the companion role of the absent gender” (2009, 217). This observation suggests that similar study of “male” artifacts in the menstrual houses at Draper needs to be undertaken.

3.3 *The South Field*

Figure 3.2: The South Field



There were seven houses in the South Field, with two houses (#44 and 47) overlapping (Figure 3.2) (Table 3.1). This overlapping suggests that House 47, the smaller structure, may have been the first structure in the South Field and was occupied while the remaining five houses were built and was subsequently rebuilt to become the longer House 44. It is suggested that House 36 may have been a menstrual house based on the lack of evidence for sweat baths, although House 40 might also be a candidate for a menstrual house since it too lacks evidence for sweat bath post moulds. For purposes of this study, House 36 is inferred to be a menstrual house. It is suggested that these houses in the South Field may have originally had a population of 156 individuals, increasing to 204 individuals with the additions to Houses 33 and 40.

Table 3.1. Data on Houses in the South Field
(adapted from Finlayson 1985)

| South Field | | | | |
|----------------------------------|--|------|---|---|
| House No. | Original Area of Houses (sq m) Including Menstrual House 36 | | Original Estimated Population Including Menstrual House 36 | Revised Est. Population Excluding Menstrual House 36 |
| 33 | 88 | 88 | 12 | 12 |
| 36 | 205 | 205 | 36 | 0 |
| 37 | 124 | 124 | 24 | 24 |
| 39 | 239 | 239 | 48 | 48 |
| 40 | 98 | 98 | 12 | 36 |
| 44 | 236 | 163+ | 36 | 36 |
| 47 | 102 | 205+ | 0 | 0 |
| Total Excluding House 47 | 990 | | 168 | 156 |
| 33 Four Additions | 221 | | 48 | 48 |
| 40 One Addition | 110 | | 24 | 24 |
| Subtotal | 331 | | 72 | 72 |
| Total Estimated Populations | | | 240 | 228 |
| Total Area of Houses (sq m) 1321 | | | | |

As is the case for most segments of the Main Village, there are two major orientations of house structures #33, 39, 40, and 44/47 versus #36 and 37 (although #36 is interpreted as a menstrual house) forming two clusters of houses.

One significant feature of the South Field is the presence of a fence, 74 m long, comprised of a single row of post moulds. It is possible that this represents a symbolic barrier, providing separation of the South Field houses from the Main Village.

In my 1985 publication, I noted the following characteristics of houses in the South Field compared to the Main Village.

The similarities included:

- multiple orientations of houses;
- the placement of houses to create central plazas;
- preference for houses with cigar-shaped ends;
- construction of sweat baths in the central corridors of some houses; and
- the digging of large pits in some houses.

Differences in the houses included:

- a smaller site area and smaller estimated population;
- an atypical site location;
- a preference for smaller houses;
- a much greater distance between houses;
- the lack of use of houses for defensive purposes;
- house walls are in most instances characterized by an erratic placement of posts;
- the use of slightly smaller poles for construction of house walls;
- well defined patterns of bench supports;
- preference for pits with circular plan shapes; and
- tendency for pits to be located on the edges of the central corridors (Finlayson 1985, 474,481).

In my 1985 publication, I concluded “that Draper South Field represents a settlement which was functionally and/or temporally different than the Main Village” (ibid., 481). I also suggested that the analysis of the faunal remains recovered from the South Field might assist in understanding its relationship to the Main Village.

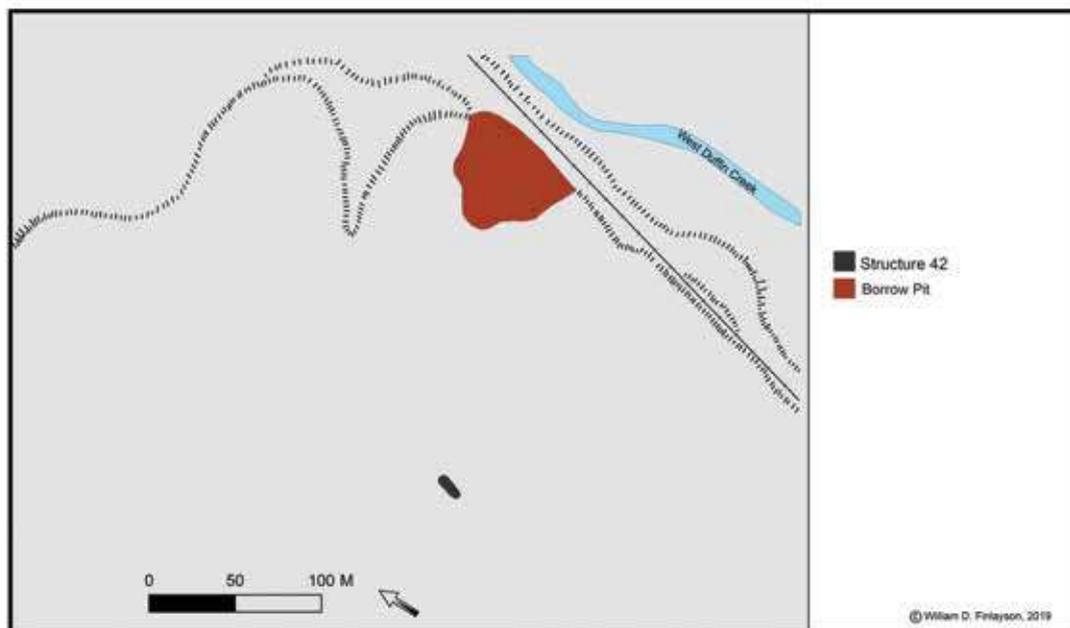
I remain convinced that the South Field is a different settlement type, that it is not a village per se with no palisades. I propose two hypotheses to explain the South Field. First, it is a hamlet, occupied in the warm weather in agricultural fields inhabited by families who wished to be away from their winter village. Given its proximity to

Draper, it cannot be related to the occupation of the Draper Main Village, but rather it is suggested that it is related to the occupation of the Spang site. Certainly, by the time the Main Village was abandoned, the agricultural fields in proximity to it would have regenerated and been useable. Second, it is hypothesized that the South Field might represent a site occupied in the winter months by Algonquian peoples who settled near the Main Village as some of the Algonquian-speaking people wintered near the villages of the historic Huron-Wendat as recorded in historical documents such as the *Jesuit Relations*. In either case, the Draper South Field would be a settlement type similar to the White site, which would suggest that White may also be an Algonquian winter settlement related to the occupation of Draper or perhaps earlier villages such as Pugh. Clearly these hypotheses can only be tested by the reanalysis of all artifacts from the South Field and White along with detailed analyses of the floral and faunal remains from both sites.

It is important to note that I question the interpretation of the South Field as the last addition to the Draper site by Birch and Williamson who note that “the ceramics from this area seriate late in the sequence” (2015a, 58) since no data to support this statement are included in their publication.

3.4 Structure 42

Figure 3.3: Structure 42

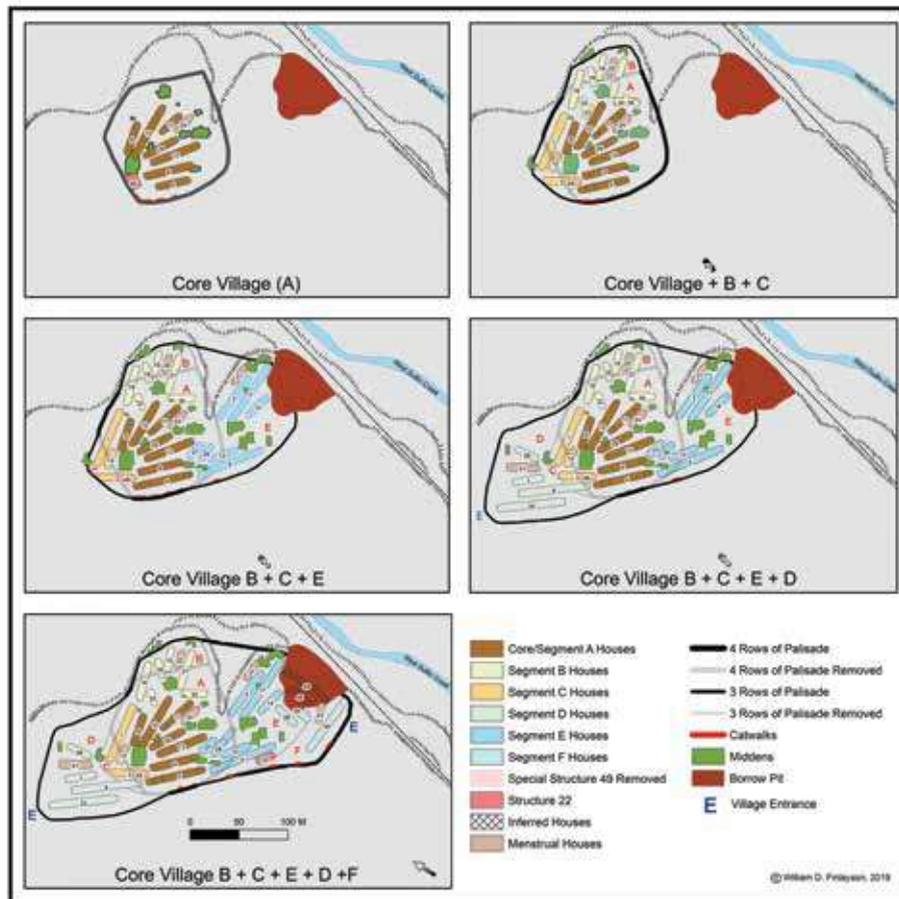


Structure 42 is 15 m long and 7.3 m wide and is located 60 m southwest of the Main Village as illustrated in Figure 3.3. It is suggested that this may represent another special structure to house visitors to the village, perhaps at times when such structures did not exist in the Main Village. Given the above interpretations, this would include the Main Village after the Core Village had been expanded to include Segments B–E.

There has been only limited analysis of the artifacts recovered from Structure 42. Where published data are not available, data from the artifact catalogue are used although there are some problems with this. For instance, some catalogue entries list the number of pieces of chipping detritus while some list the weight. Accordingly, this discussion must be considered preliminary; the data published by Von Gernet indicates the presence of 17 pipe fragments (1985, 89) and the artifact catalogue indicates the presence of nine rim sherds. The study of ground and rough stone by Pearce indicates the presence of one celt blank, two celt fragments, one flake of a celt, two hammer/anvils/hammer-anvils, and three manos/metates/mano-hammers. The catalogue indicates the presence of a single projectile point, a few pieces of chipping detritus, and one utilized flake. No bone artifacts are documented in the artifact catalogue. The relatively large number of pipe fragments compared to rim sherds suggests that smoking was one activity which played an important role in the function of this structure. It would be interesting to determine if any of the rim sherds or fragmentary rim sherds represent high collared vessels which might suggest feasting with visitors.

3.5 Sequence of Draper Site Village Expansions— A Second Approximation

Figure 3.4: Revised Sequence of Expansions of the Draper Main Village



The examination of the numerous publications and reports on the various data sets from the Draper site excavations resulted in certain observations which suggest that there is an alternative sequence of expansions for the Draper site as illustrated in Figure 3.4. These observations include:

- the original construction of the Core Village up to 30 m back from the break in slope to the east;
- changes in the inferred locations of palisades surrounding Segments E and F of the expanded village;

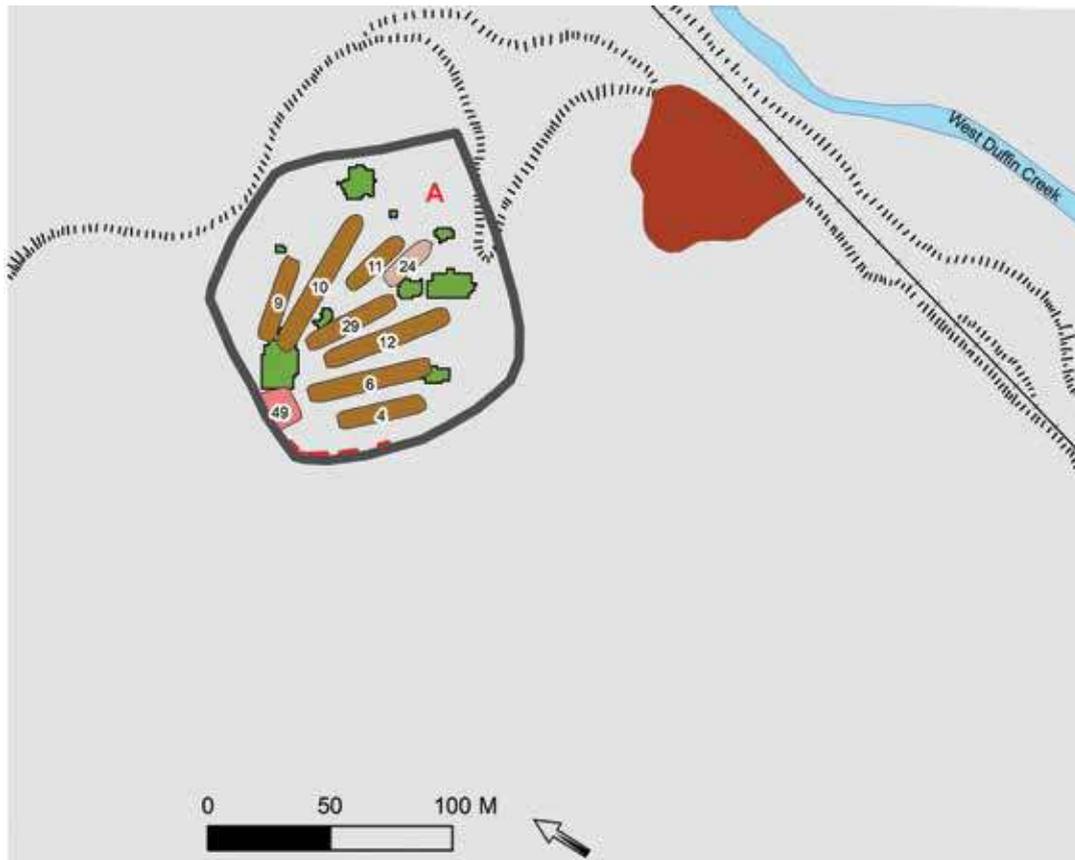
- the reinterpretation of House 22, a structure used to house visitors to the village, as part of Segment F of the expanding village;
- the mends/matches of pipe fragments by Von Gernet between the South Field and Segments B and C of the Core Village;
- a reconsideration of the soils of the site as detailed by Bohdanowicz (1978 a, b) which indicated that the soils on the eastern side of the village were heavier than those on the west and the realization that this would have had an impact on matters such as the number of posts per metre in house walls; and
- ceramic data presented by Pearce indicating that we do not understand the variation in ceramics in villages as manifested by the very significant differences in selected attributes between houses in the Core Village. But Pearce's data do suggest that Segments B and C were the earliest based on the frequency of neck decoration.

This new interpretation also suggests that previous attempts to use density of wall post moulds both in my 1985 study and in Warrick's 1988 study need to be reassessed, taking into account the nature of the texture of the subsoil.

The interpretation presented below also reflects my current view that Draper represents a Frontier Coalescent Village which ultimately involved the amalgamation of five previously separate villages, some of which were not originally from the Duffin Creek drainage. I wish to stress that this interpretation is subject to revision based on new information. It should also be considered the current "best guess." One only has to study the movements of Yananomö settlements as documented by Napoleon Chagnon (e.g., 2013) to gain some appreciation of the transient nature of villages of slash and burn horticulturalists, something noted by Ramsden more than 40 years ago and ignored by most researchers since.

3.5.1 Core Village

Figure 3.5: Core Village (Segment A)



The Core Village (Segment A) (Figure 3.5) consisted of at least eight longhouses and occupied an area of 1.19 ha of land. The estimated original population was 420 individuals, reduced to 396 individuals based on House 24 being a menstrual house (Table 3.2). The original village was set back up to 30 m from the break in slope to the northeast, an unusual placement for palisades which were normally at the top of the break in slope. This created an open space between the top of the bank and the four rows of palisades which would have to be crossed by anyone attacking the village from this direction. It is now suggested that this placement of the Core Village set back from the top of slope was part of the original planning for the Draper site.

Table 3.2. Data on Houses in the Core Village (Segment A)
(adapted from Finlayson 1985)

| Core Village/Segment A | | | |
|-------------------------------|--|---|---|
| House No. | Original Area of Houses (sq m) Including Menstrual House 24 | Original Estimated Population Including Menstrual House 24 | Revised Est. Population Excluding Menstrual House 24 |
| 4 | 275 | 48 | 48 |
| 6 | 402 | 72 | 72 |
| 9 | 266 | 48 | 48 |
| 10 | 505 | 84 | 84 |
| 11 | 209 | 36 | 36 |
| 12 | 423 | 60 | 60 |
| 23 | 115 | 0 | 0 |
| 24 | 180 | 24 | 0 |
| 29 | 302 | 48 | 48 |
| Total Estimated Populations | | 420 | 396 |
| Total Area of Houses (sq m) | | 2,677 | |
| Area Core Village (sq m) | | 11,900 | 11,900 |
| Area Devoted to Housing (%) | | 22.5 | |
| Area per Person (sq m) | | 28.3 | 30.1 |

It is estimated that 410 m of four rows of palisades, constructed from about 4,770 poles, comprised the original palisades around the Core Village. The houses in the northern and eastern parts of the village were set well back from the palisades creating large open spaces in these portions of the Core Village.

It has also been noted that there were two different orientations of houses which formed two clusters in the Core Village (#4, 6, 12, and 29 versus 9, 10, 11, and 24) which were interpreted as being evidence for two clan segments occupying the Core Village. These had estimated populations of 228 and 168 individuals respectively excluding House 24, a menstrual house, from the estimates. It is also noted that each of these

clusters had one very large longhouse (#10 and 12) which I suggested were chiefs' houses. These large houses were positioned near the centre of the Core Village while in later expansions the longest houses were placed parallel to the palisades to assist in the defense of the village by creating long narrow corridors which could be easily defended.

Since the Core Village was occupied for the greatest length of time, it is not surprising that houses within it were subject to the greatest amounts of alteration. House 4 was expanded four times to make it ultimately the longest longhouse in the Core Village, it being adjacent and parallel to the palisades along the southwestern side of the village which, after these expansions, reduced access to the centre of the Core Village. The two expansions of House 4 to the northwest, one by 9.1 m and then another by 7.6 m leads me to suggest that these extensions are associated with the addition of Segment C, while the two expansions to the southeast, by 6.4 m and 3.0 m respectively, are attributed to the addition of Segment E as detailed below. House 6 was also altered during its occupation. It appears to have been shortened twice with the first of these contractions resulting in the rebuilding of a major portion of its western wall inside its original location. As I noted in my 1985 publication, "This demonstrates that Iroquoian longhouses were not static structures as generally accepted in their interpretation" (Finlayson 1985, 125). House 10 had its western end extended by 3.4 m and then shortened by 14.8 m while its eastern end extended by 4.6 m. House 11 had extensions of 7.3 m to the west and 7.8 m to the east which are interpreted as occurring after the addition of Segment B to the Core village as detailed below.

As mentioned, House 24 is interpreted as a menstrual house used by the women of the Core Village. Consequently, it has been excluded from estimates of the population since it was not a residential structure like the rest of the houses in the Core Village.

It is also worth noting that within the Core Village there are two possible pairs of houses (#4 and 6, and #12 and 29) which comprise the southern cluster of four houses interpreted as one clan segment and that there is one pair (#9 and 10) and a single house (#11) which are grouped in the northern cluster of houses interpreted as representing a second segment. Could it be that these groupings of houses represent further segments of populations with different origins in the creation of the Core Village? This might be one factor contributing to the complexity of the ceramic assemblage analyzed by Pearce (1978a), something which should be subject to further investigation.

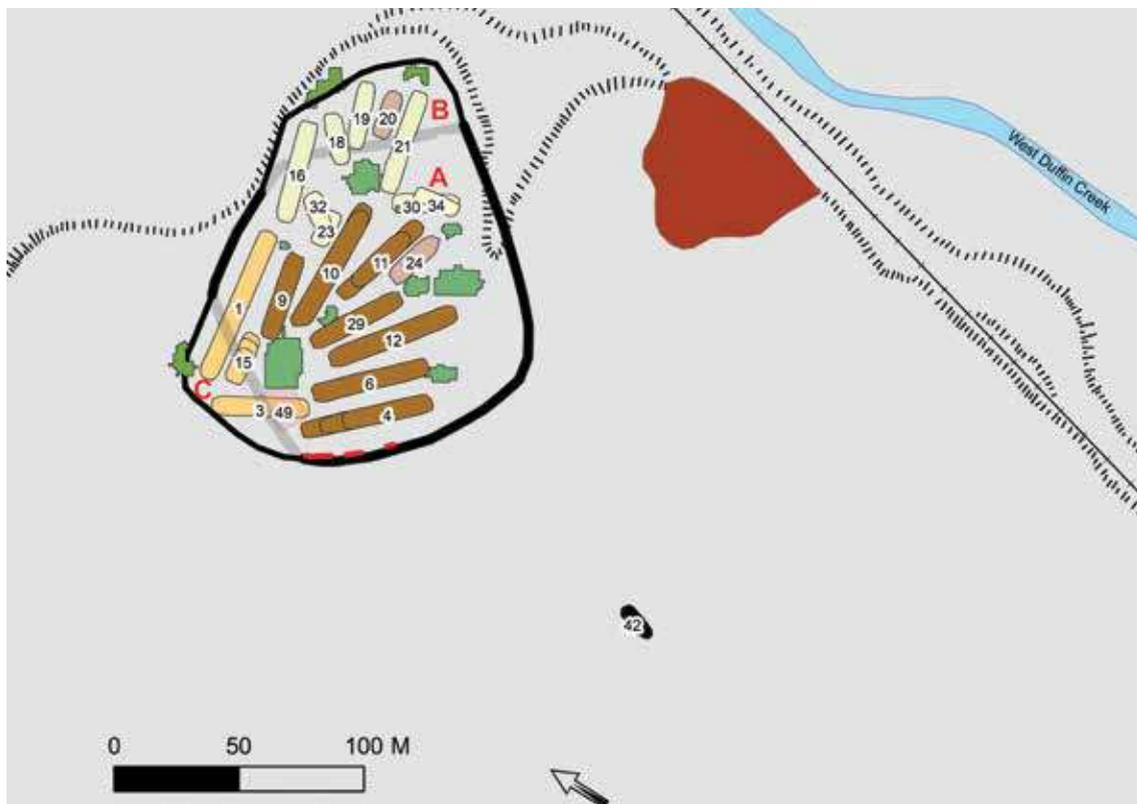
Attached to the inside of the palisades in the northwest segment of the village was a small rectangular structure which is interpreted as a visitor's house (cf. Tooker 1967, 28, 29).

Ten middens are present within the Core Village, but one of these (#54) would also contain refuse from Segment B as might Midden 71 depending on whether House 34 was associated with the Core Village or Segment B. Two middens (#52 and 70) would also contain refuse from Segment C. Further, three middens (#55, 57, and 66) could have refuse from both the Core Village and Segment E. Thus, only two middens (#59 and 64) would contain refuse only from the Core Village.

In the Core Village, the area per person was 30.1 sq m. The area devoted to houses was 22.5% (see Table 3.2 and cf. Finlayson 1985, 110–113). These data have been adjusted to reflect the interpretation of House 24 as a menstrual house.

3.5.2 Expansion 1: Addition of Segments B and C

Figure 3.6: Core Village with Segments B and C



**Table 3.3. Data on Houses in Segments B, C, and A-C
(adapted from Finlayson 1985)**

Segment B

| House No. | Original Area of Houses (sq m) Including Menstrual House 20 | Original Est. Population Including Menstrual House 20 | Revised Est. Population Excluding Menstrual House 20 |
|-----------------------------|--|--|---|
| 16 | 315 | 48 | 48 |
| 18 | 164 | 24 | 24 |
| 19 | 212 | 36 | 36 |
| 20 | 153 | 24 | 0 |
| 21 | 326 | 60 | 60 |
| 30 | 196 | 24 | 24 |
| 32 | 140 | 24 | 24 |
| Total Estimated Populations | | 240 | 216 |
| Total Area of Houses (sq m) | | 1,506 | |
| Area Segment B | | 1,800 | |

Segment C

| House No. | Original Area of Houses (sq m) | Original Est. Population | No Menstrual House |
|-----------------------------|---|-------------------------------------|-------------------------------|
| 1 | 524 | 96 | - |
| 3 | 297 | 48 | - |
| 15 | 113 | 12 | - |
| Total Estimated Populations | | 156 | 156 |
| Total Area of Houses (sq m) | | 934 | |
| Area Segment C | | 1,200 | |

Segments A–C

| House No. | Original Area of Houses (sq m) Including Menstrual House 20 | Original Est. Population Including Menstrual Houses 24 and 20 | Revised Est. Population Excluding Menstrual Houses 24 and 20 |
|-----------------------------------|--|--|---|
| 4 Two Additions to NW End | 125 | 24 | |
| 6 Shortened | -114 | -24 | |
| 10 Shortened and Lengthened | -54 | 0 | |
| 11 Lengthened at Both Ends | 109 | 24 | |
| 15 Two additions at NE End | 51 | 24 | |
| Subtotal | 117 | 48 | |
| Total Estimated Populations | | 864 | 768 |
| Total Area of Houses (sq m) | 5,234 | | |
| Area Segment A+B+C | 14,900 | | |
| Area Devoted to Housing A+B+C (%) | 35.1 | | |
| Area per Person (sq m) A+B+C | | 17.2 | 19.4 |

In this approximation of the sequence of village expansions, the addition of Segments B and C to the Core Village (Table 3.3) at the same time or nearly the same time (Figure 3.6) involved:

- The removal of 90 m of four rows of palisades at the northeastern edge of the village “and the construction of approximately 120 m of three rows of palisades up to 30 m northeast of its original location to accommodate Segment B. These rows of palisades were located at the edge of the steep slope which drops off to the flood plain of Duffins (sic) Creek” (Finlayson 1985, 187). The slope adjacent to this part of the village was quite steep and would have provided a defensive barrier to assist in the defense of the village. It may also explain why only three rows of palisades were used here. But such steep slopes were not present in most of the areas where three rows of palisades were used in Segments D and E and therefore cannot be used to explain the use of three rows of palisades there;
- “The removal of about 80 m of four rows of palisades along the northwestern edge of the Core Village” and “the construction of approximately 100 m of

three rows of palisades up to 24 m beyond the original” (ibid., 240) to accommodate Segment C;

- The addition of these two segments of the village appear to represent a change in the strategies used to defend the village from attacks. The Core Village palisades were comprised of four rows of palisades with four sets of catwalks attached to the palisades along the exposed southwestern flank of the village. Given the perceived threats of attacks, the Core Village had a visitor’s structure located within its confines, probably directly adjacent to an entrance, which was not observed due to disturbances related to the addition of Segment C. The new strategy apparent in the addition of Segments B and C (and also used in the addition of Segments E and D, but not Segment F) was to reduce the number of rows of palisades to three, but to use the placement of new houses and the extensions of existing houses in the Core Village to reduce the distances between houses and to place the longest houses adjacent to the palisades. The latter involved the constructing of two major additions to the northwest end of House 4. With the dismantling of the visitor’s house within the Core Village, it is proposed that Structure 42 was created 60 m southwest of the expanded village. This also suggests that visitors were no longer allowed into the village to observe the defensive works created by the placement of houses;
- The removal of the visitor’s structure and one set of look-out platforms southwest of House 3;
- Five houses were added as part of Segment B with the two longest houses located generally parallel to the palisades. Houses 23 and 32 and 30 and 34 may also be related to the addition of Segment B. It is noted that the construction of House 32 helped reduce access to the plaza to the northeast as did the construction of House 30. When these houses were built, torn down and rebuilt, cannot be determined with certainty. It is also possible that one or more of these houses may have been occupied by Algonquian peoples during the winter as was the case for the Nipissing residing with the Huron in the 17th century (Finlayson 1998b, 21);
- It is also suggested that the west end of House 10 was shortened and its eastern end extended. Additions to both ends of House 11 were also made as part of this addition to the village. The placement of these houses for the addition of Segment B resulted in a plaza, where Midden 51 was located. But

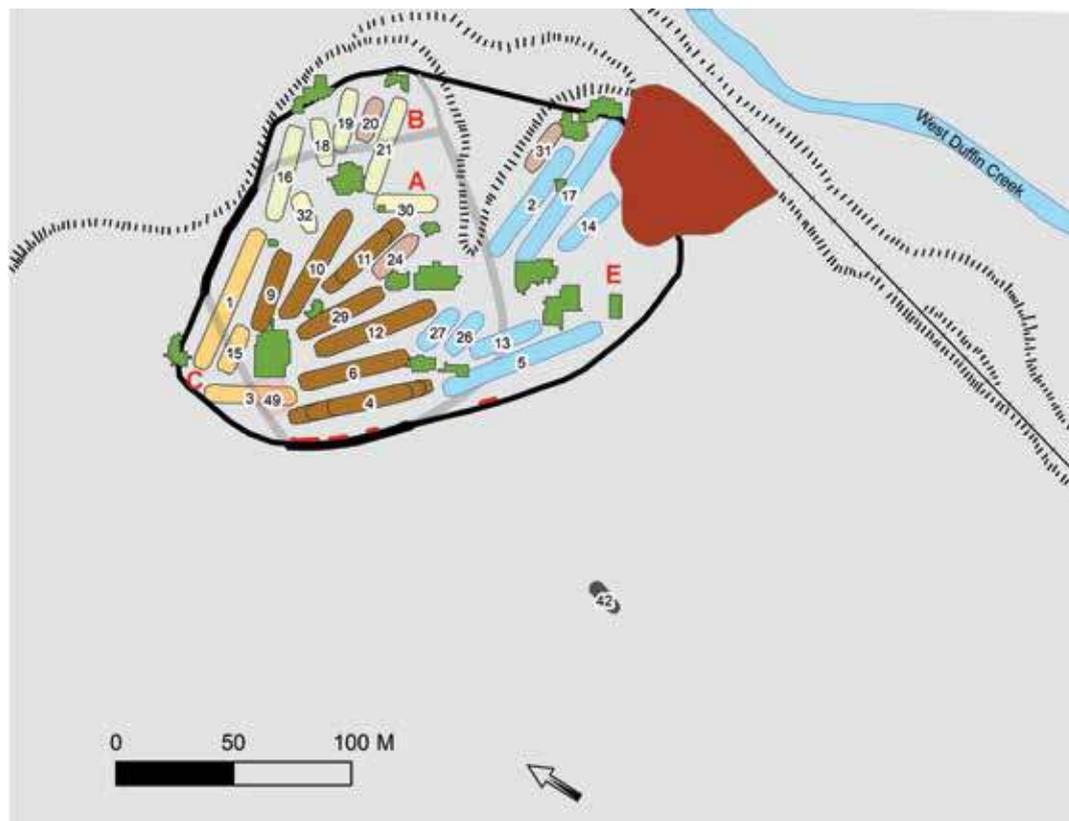
this midden occupied less than half the space in the plaza, thus providing space for communal activities within this plaza;

- House 20 is interpreted as a menstrual house as first suggested by Williams-Shucker (1997);
- For Segment C, three houses were added. House 1, a very long house and interpreted as a chief's house, was placed in close proximity and parallel to the palisades at the north end of the site. House 3 was constructed abutting the new palisades surrounding Segment C, thus restricting movement within the village. House 15 was also added as part of Segment C and was extended twice to the east, each extension resulting in the addition of one new hearth and an estimated 12 individuals. The house was also constructed on top of the original four rows of palisades surrounding the Core Village and over top of the visitor's house. It is proposed that the northwestern end of House 4 was also extended twice at this time. The placement of palisades and houses in this expansion also resulted in the creation of a second plaza where Midden 52 was located. Once again, about half the space in this plaza was open space probably used for communal activities;
- The placement of long longhouses parallel to the palisades and the abutment of House 3 with the palisade, defensive strategies which were used in future expansions of the village, would have created bottlenecks impeding free movement within the village by attackers who had breached the palisades. This would have allowed the defenders to more readily protect the village, especially in summer months when there were a reduced number of villagers available to defend their turf while many of the men were away hunting;
- The addition of Segment B resulted in houses which also contributed refuse to Midden 52 and the creation of two middens #69 and 77/78;
- These changes resulted in the increase in the size of the village by a total of 0.3 ha, bringing the total size to 1.49 ha and increasing the population by 396 people or 372 if House 20 is excluded as a menstrual house. This would bring the total maximum population to 864 people or 768 excluding menstrual houses;
- These additions to the Core Village also represent the beginnings of the placement of the longest houses in the expanded village at its outer edges (i.e., Houses 16, 21, and 1). It may be that the northwestern extensions of House 4 also occurred at this time;

- After these two additions to the Core Village, the area per person was 17.2 sq m or 19.4 sq m excluding the menstrual house (#20) from the calculation, a reduction from the 28.3 sq m (30.1 sq m recognizing the presence of menstrual houses) in the Core Village. The area devoted to houses was 35.1%, up from the 22.5 sq m per person for the Core Village, thus creating a greater density of space used for houses within the expanded village; and
- Given the mends/matches in pipe fragments documented by Von Gernet (see page 90), it is suggested that either these pipe fragments from the Core Village were collected by those living in the South Field as a hamlet to the Spang site or obtained by Algonquian living in the South Filed as a seasonal site contemporaneous with the Iroquoians in the Main Village.

3.5.3 Expansion 2: The Addition of Segment E

Figure 3.7: Core Village with Segments B, C, and E



In my original consideration of the sequence of expansions of the Draper site, I examined data on the estimated densities of wall posts, sweat bath post moulds, interior isolated posts and pits (Finlayson 1985, 418) and suggested that either Segment D or Segment E could have followed the addition of Segment C. In reconsidering the sequence of expansions, I realized that I had made an error where the palisades surrounding Segment E joined the Core Village (Figure 3.7). I suggested in my 1985 volume that the Segment E palisades joined the Core Village palisades east of House 21. I had missed the fact that we dug two 5 m squares in the area southwest of the corner of the palisades of the Core Village southwest of House 21 and that we found no evidence of palisades there. Thus, the segment of palisades around Segment E had to have connected to the palisades around Segment B at the east end of House 21. This would also have enclosed much of the gully which led to the creek in the valley adjacent to the site. In addition, I now note that Segment E had more and larger middens than Segment D which again supports the new interpretation that Segment E predated Segment D.

Table 3.4. Data on Houses in Segment E
(adapted from Finlayson 1985)

| Segment E | | | |
|--|--|--|---|
| House No. | Original Area of Houses (sq m) Including Menstrual House 31 | Original Est. Population Including Menstrual House 31 | Revised Est. Population Excluding Menstrual House 31 |
| 2 | 527 | 72 | 72 |
| 5 | 546 | 84 | 84 |
| 13 | 226 | 36 | 36 |
| 14 | 225 | 48 | 48 |
| 17 | 512 | 96 | 96 |
| 26 | 164 | 24 | 24 |
| 27 | 170 | 24 | 24 |
| 31 | 158 | 24 | 0 |
| Total Estimated Populations | | 408 | 384 |
| Total Area of Houses (sq m) Segment E | | 2,528 | |

| | | |
|---|--------|-------|
| Total Area of Houses (sq m) Segments A+B+C+E | 7,762 | |
| Area of Village A+B+C+E | 22,600 | |
| Area Devoted to Housing A+B+C+E (%) | 34.3 | |
| Total Village Estimated Population | 1,272 | 1,152 |
| Area per Person (sq m) A+B+C+E | 17.8 | 19.6 |

The third expansion resulted from the addition of Segment E to the village (Table 3.4). This involved:

- Dismantling about 130 m of four rows of palisades which surrounded the southeast portion of the original Core Village and the construction of about 320 new m of three rows of palisades at up to 77 m beyond its original location;
- Given the above arguments regarding the switch to three rows of palisades for the additions of Segments B and C and the construction and use of Structure 42 as a visitor's house outside the village, it is proposed that Structure 42 continued to be used during the occupation of Segment E;
- The addition of 0.77 ha of space in Segment E to the village resulted in its total size being 2.26 ha;
- House 5, a very long house interpreted as a chief's house, paralleled the palisades at the southeastern edge of the village with two similar very long houses, also interpreted as chiefs' houses (#2 and 17) placed parallel to the small gully to their north. The placement of these houses continues to indicate the use of very long houses to assist in village defenses as seen in other additions to the Core Village, where the longest houses were no longer placed towards the centre of the village as had been the case in the original Core Village;
- The placement of four houses (#5, 13, 26, and 27) in this expansion and the double extension of House 4 and House 6 (possibly shortened) created a small plaza in which Middens 57 and 66 were located and also served to reduce access to this plaza by the narrowing the space between Houses 4 and 5. It is suggested that House 6 may have been shortened and made narrower at this time to accommodate House 27;
- There are two clusters of houses with generally similar orientation. Four houses (#5, 13, 26, and 27) cluster in the southwestern part of this addition

while four houses (#2, 14, 17, and 31) cluster in the northeastern part of the addition. I suggested that these represent two different clan segments within this part of the village. These houses were placed to create a large open area between these two clusters of houses;

- This resulted in the addition of an estimated 408 individuals to the village bringing its total estimated minimum population to 1,272, or with the addition of 384 individuals if House 31 was a menstrual house, a total population of 1152 individuals;
- The area per person was 17.8 sq m. Here I note that I did not recalculate the area per person or the area devoted to housing since this change in the placement of the palisades incorporated the small gully leading to the creek but did not add any new livable space; and
- The area devoted to housing increased to 34.3% of the whole village.

3.5.4 Expansion 3: The Addition of Segment D

Figure 3.8: Core Village with Segments B, C, E, and D

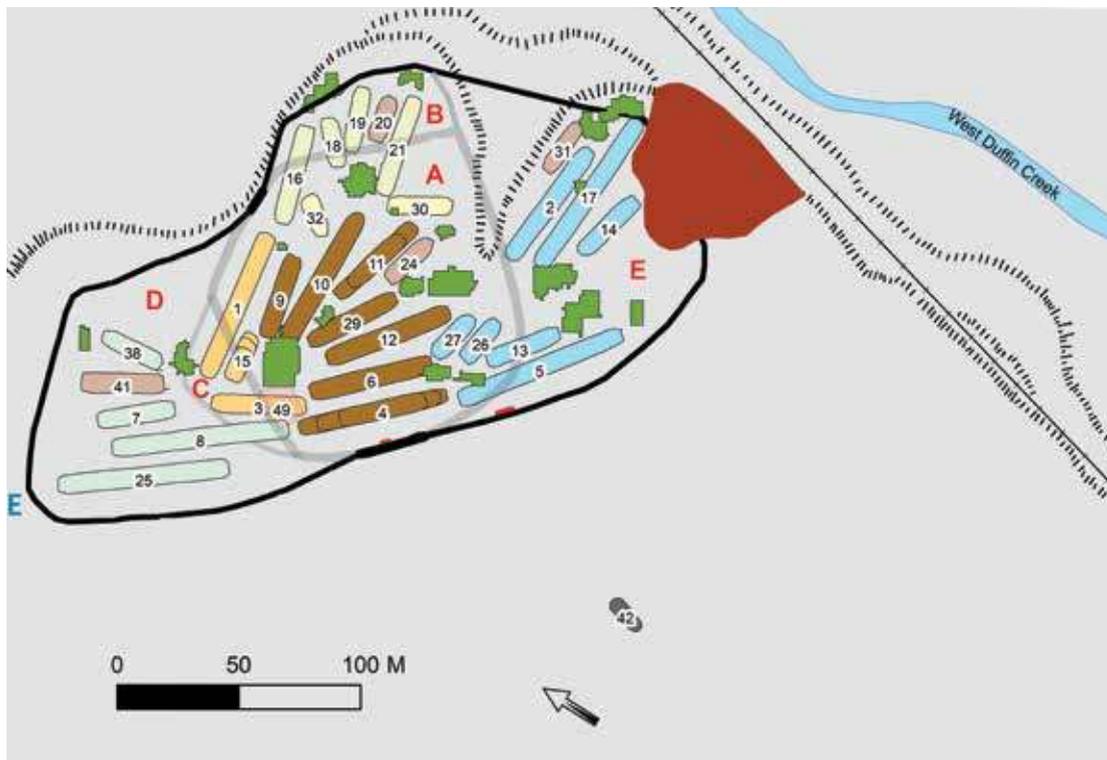


Table 3.5. Data on Houses in Segment D
(adapted from Finlayson 1985)

| House No. | Original Area of Houses (sq m) Including House 41 | Original Est. Population Including House 41 | Revised Est. Population Excluding House 41 |
|--|--|--|---|
| 7 | 248 | 48 | 48 |
| 8 | 567 | 96 | 96 |
| 25 | 551 | 96 | 96 |
| 38 | 201 | 36 | 36 |
| 41 | 265 | 48 | 0 |
| Total Estimated Populations | | 324 | 276 |
| Total Area of Houses (sq m) Segment D | | 1,832 | |
| Total Area of Houses (sq m) Segments A-E | | 9,594 | |
| Area of Village A+B+C+E+D | | 30,300 | |
| Area Devoted to Housing A+B+C+E+D (%) | | 31.7 | |
| Total Village Estimated Population | | 1,596 | 1,428 |
| Area per Person (sq m) A+B+C+E+D | | 19.0 | 21.2 |

The addition of Segment D to the village involved the following changes (Table 3.5):

- The dismantling of about 75 m of palisades of Segment A and all 100 m of the palisades of Segment C and the building of about 320 m of three rows of palisades at up to 60 m outside the palisades of Segment C (Figure 3.8);
- The addition of 0.77 ha of space enclosed by palisades increasing the size of the village to 3.03 ha. It is interesting that this is the same area added to the village as Segment E;
- The new rows of palisades were set back from the break in slope before joining the palisades surrounding the original Core Village along the exposed southwestern flank of the village;

- A total of five houses were added, two very long longhouses, and chiefs' houses (#8 and 25) were placed parallel to the palisades along the southeastern side of the village. This continued the new strategy first adopted in the addition of Segments B and C to the Core Village and the addition of Segment E, positioning the longest houses to assist in village defenses;
- The addition of three houses (#7, 41, and 38) to create a plaza also enclosed by Houses 1 and 3 where Midden 53 was located, while between Houses 38 and 1 there was a large open area;
- The creation of an entrance to the village at its new northeast corner;
- The addition of an estimated 324 individuals (276 excluding menstrual houses) to bring the total estimated village population to 1,596 or (1,428) individuals;
- The area per person was 19.0 sq m (21.2 excluding the menstrual houses); and
- The area devoted to housing increased to 31.7%. (cf. Finlayson 1985, 425, 426).

3.5.5 Expansion 4: The Addition of Segment F

Figure 3.9: Core Village with Segments B, C, E, D, and F

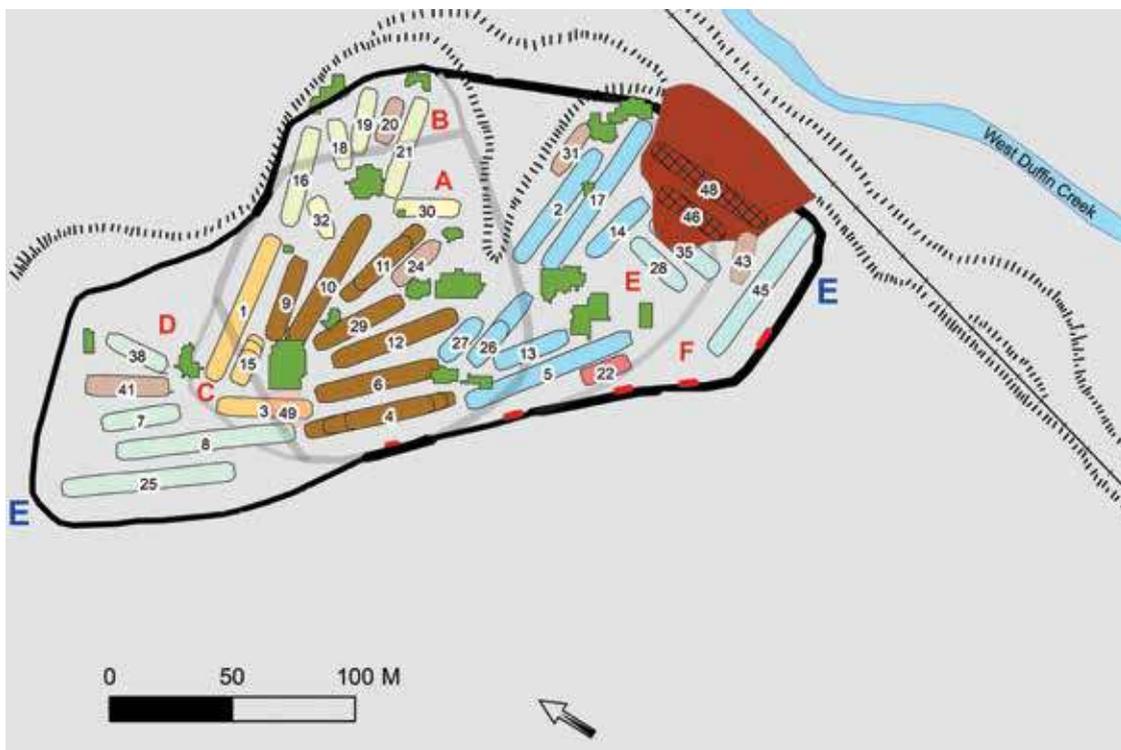


Table 3.6. Data on Houses in Segment F
(adapted from Finlayson 1985)

| Segment F | Original Area of Houses (sq m) Including Menstrual House 43 | Original Est. Population Including Menstrual House 43 | Revised Est. Population Excluding Menstrual House 43 |
|---|--|--|---|
| House No. | | | |
| 28 | 207 | 36 | 36 |
| 35 | 269 | 48 | 48 |
| 43 | 148 | 24 | 0 |
| 45 | 521 | 84 | 84 |
| 46 Inferred House | 242 | 36 | 36 |
| 48 Inferred House | 429 | 72 | 72 |
| Subtotal Estimated Populations | | 300 | 276 |
| Segment A | | | |
| 4 Two Additions to SE End | 71 | 24 | 24 |
| Segment E | | | |
| 17 Two Additions to W End and One Addition to E End | 51 | 0 | 0 |
| 26 Additions to SE End of House 26 | 110 | 24 | 24 |
| Subtotals | 232 | 48 | 48 |
| Total Estimated Population Segment F | | 348 | 324 |
| Total Area of Houses (sq m) Segment F | 2,048 | | |
| Total Area of Houses (sq m) Segments A-F | 9,810 | | |
| Area of Village A+B+C+D+E+F | 34,200 | | |
| Area Devoted to Housing A+B+C+D+E+F (%) | 28.7 | | |
| Total Village Estimated Population | | 1,944 | 1,752 |
| Area per Person (sq m) A+B+C+D+E+F | | 17.6 | 19.5 |

The addition to Segment F (Figure 3.9), the last expansion to the village involved (Table 3.6):

- The dismantling of about 220 m of the three rows of palisades around Expansion 4;
- The construction of about 280 m of four rows of palisades placed up to 42 m beyond the palisades of Segment E with two lookout platforms placed along the southwest palisades and another lookout platform along the southern palisades opposite House 45. There was also an entrance through the palisades opposite House 45;
- The addition of 0.39 ha of space to the village resulting in a total size of the Main Village of 3.42 ha;
- The construction of at least four new houses within the palisaded village although it is speculated that two houses were destroyed by the borrow pit at the eastern edge of the site;
- The presence of House 45 parallel to the palisades and abutting the palisades at its eastern end continues the pattern of placement of the longest houses parallel to the palisades as a defensive strategy to reduce movement of attackers who had breached the palisades by creating long narrow easily defended corridors;
- The continued placement of longest houses parallel to the palisades, a practice which began with the additions of Segments B and C allows the addition of an inferred house (#48) parallel to the inferred palisades along the eastern edge of the site and also parallel to Houses 28 and 35. Further, it is also possible to infer the presence of a shorter house (#46) between House 48 and House 35. This results in a total area devoted to housing of 28.7% of the village. The continued decline of the area devoted to housing which began after the addition of Segments A and C further supports the inference of these two destroyed houses;
- The construction of Structure 22 interpreted as a visitor's house is somewhat different than that with the original Core Village. It is noted that originally this structure was interpreted as part of Segment E, but closer examination revealed that it was superimposed over the palisades of Segment E and is, therefore, part of Segment F. It is noted that its placement reduces the distance between the southeastern end of House 5, part of Segment E, and the four rows of palisades surrounding Segment F; and

- The return to the use of four rows of palisades with catwalks and the construction of a visitor's house within the palisades indicates a return to defensive strategies used in the Core Village. This also suggests an increase in warfare to the extent that it was no longer possible to have a visitor's house located outside the village.

Unlike other expansions, there was a large space between the two long longhouses (#5 and 45), which provided additional space for communal activities within the much-expanded village. With the presence of two inferred houses, it is estimated that 348 people were added to the village assuming that Houses 46 and 48 had populations of 36 and 72 individuals respectively. This brings the estimated population to 1,944 individuals. The number of individuals added is reduced to 324 and the total estimated population to 1,752 assuming the presence of five menstrual houses. The area per person was 17.6 sq m and the area devoted to housing was 28.7% if Houses 44 and 48 had areas of 269 and 521 sq m respectively.

3.6 Strategic Defensive Planning in the Expansion of the Draper Site

In my original discussion of the expansion of the Draper site, I noted a number of features in the placement of longhouses such as along the outer edges of the expansions of the village and the changes in the number of rows of palisades as the village expanded. With the previous discussion of each of the segments of the Draper site, it is necessary to revisit the strategic planning that was involved in the construction of the original Core Village and in the subsequent additions to the village.

3.6.1 The Core Village

In my revised consideration, I noted that the northeastern edge of the Core Village was set 30 m back from the break in slope and that the entire Core Village was surrounded by four rows of palisades. I also note the presence of three short rows of post moulds which I interpret as evidence for catwalks along the exposed southwestern flank of the village. As documented historically for the Huron-Wendat in Huronia, these catwalks would have had pots of water used to attempt to put out fires set at the base of the palisades and rocks to hurl down on attackers (Heidenreich 1971, 140). The two longest houses (#10 and 12) were located towards the centre of the village, with one of each of these houses a part of the two groups of houses of different orientations,

which I suggest represent two clan segments. There was a visitor's house attached to the palisades along its eastern edge. Its placement suggests that visitors could be housed within the village and yet be prevented from gaining knowledge of the layout of the village by their being confined to the visitor's structure. I now believe that the placement of the northeastern edge of the village was intentional with the plan that Segments B and C would be added in such a way to create a much more defensible village. It is important to add that defensive considerations were not as significant a factor in the Core Village as they were in all later additions to the village.

3.6.2 The Addition of Segments B and C

In this reconsideration, I propose that Segments B and C were added to the Core Village at the same time or nearly the same time. The changes in the construction of the expanded village involved:

- New palisades with three rows of posts rather than four. The three catwalks present along the four rows of palisades in the Core Village may have been retained to assist in the defense of the southwestern flank of the village, but there was no evidence for the construction of new catwalks;
- The removal of the visitor's house attached to the palisades in the Core Village and the construction of Structure 42, a visitor's house located 60 m southwest of the village. This indicates a significant change in the housing of visitors to the village. Rather than being confined to a house within the village and probably being restricted to staying in this structure, visitors were now housed in a separate small house outside the village where there would be no chance of learning the layout of the village and its internal defensive structures;
- The placement of the longest houses in Segment B (#16 and 21) on the outer edges of Segment B and the placement of all five houses to assist in the creation of a plaza in which Midden 54 was located. The access to this plaza was also restricted by the placement or rebuilding of Houses 30 and 32;
- The placement of House 1, a very long longhouse, parallel to the palisades on the northern edge of the site; and
- The placement of House 3 such that it abutted the palisades to create a cul-de-sac. In conjunction with the double expansion of the northwest end of House 4, a Core Village house, these two houses combined to create a barrier about 175 m long with only two short openings between the three houses thus restricting access to the central part of the village. The placement of House 3

also created a plaza, a part of which was used to create Midden 52. There remained a large open space along the southeastern side of the village.

In total, these two expansions of the village demonstrate very significant planning, not only in the placement of the houses added to the village but suggest that these expansions were planned when the Core Village was initially constructed.

3.6.3 The Addition of Segment E

In this revised sequence of expansions of the Draper site, Segment E was the next addition to the expanded village. Strategic planning in this addition involved:

- The continued use of three rows of palisades and perhaps the creation of another catwalk along the southwestern edge of the village;
- The placement of House 5, one of the very long longhouses parallel to the palisades, along the southwestern edge of the village. In conjunction with the two extensions to the southeastern end of House 4, three houses (#3, 4, and 5) created a sizable interior barrier helping restrict access to the interior of the expanded village. The placement of House 5 along with Houses 13, 26, and 27 created a small plaza where Middens 56 and 57 were located;
- In the eastern part of Segment E, two very long longhouses (#2 and 17) were placed parallel to the gully which led down to Duffin Creek. This would have provided defensive barriers if the village was penetrated from the east; and
- The placement of the two clusters of houses did create a very large internal space, access to which was restricted by the eastern expansion of House 26. Structure 42 would have continued to function as a visitor's house.

3.6.4 The Addition of Segment D

This was the second last expansion of the village. Defensive planning involved:

- The continued use of three rows of palisades with no apparent use of catwalks; and
- The placement of the two longest longhouses (#8 and 25) parallel to each other and to the southwestern rows of palisades. This created a long, easily defended corridor between the two houses in a fashion similar to that between Houses 2 and 17 in Segment E. The placement of House 8 in relation to the northwest end of House 4, which had been expanded twice, served to further restrict access to the plaza in which Midden 52 was located. Three houses (#8, 4, with

its four expansions, and 5) created a barrier 218 m long with only two openings about 4 m wide. These two openings could have been easily defended to prevent access to the interior of the village. Structure 42 would have continued to provide housing for visitors to the village.

3.6.5 The Addition of Segment F

The final addition to the Draper site involved significant changes in strategic planning of its defenses. The following highlight what was involved as well as my observations:

- A return to the use of four rows of palisades and the use of catwalks to assist in defending the village and its palisades;
- The placement of House 45, a very long longhouse, parallel to and abutting the palisades at the eastern corner of the village, thus again creating a long, narrow easily defended corridor with a cul-de-sac at one end;
- Given the placement of Houses 28 and 43 and the destruction of part of the site to the east by a borrow pit created to construct the railway in the 19th century, I have hypothesized the presence of two additional houses parallel to these, thus again indicating the presence of two clan segments in this portion of the village and again suggesting a very long longhouse parallel to the palisades on the eastern edge of this segment of the village; and
- House 22 was constructed during this expansion of the village suggesting that it was too dangerous to house visitors in Structure 42 outside the village.

These defensive strategies in the planning of the initial creation and subsequent four expansions of the Draper site involve a number of speculative elements. However, in conjunction with the recovery of almost 300 pieces of fragmented human bone across parts of the village and the discovery of Burial 6, a male that had a tip of a chert projectile point imbedded in the posterior of the femoral neck of the right leg, who had been scalped and speared in the chest, clearly indicates that hostilities existed at the time of the occupation of Draper. So, too, does the recovery of relatively large amounts of St. Lawrence Iroquoian pottery, although the entire collection of rim sherds needs to be re-analyzed. Given the recovery of smaller amounts of fragmented human bone at Mantle, it is clear that at that site, warfare was not as prevalent as it was at Draper.

These combined defensive strategies employed at Draper are extremely unusual and provide support for Draper as being a Frontier Coalescent Village defending a frontier on the Duffin Creek drainage from significant threats.

3.7 A Neutral Occupation of House 45 at the Draper Site

In my original description of House 45, I noted that:

Six small pits are similar in shape, size and placement to the slash pits recorded for Neutral houses (e.g. 1977, 1984). Since slash pits are interpreted as both partitions and bench supports (Lennox 1984:17), their presence suggests that the occupants of House 45 may have had a different tradition of house building and an origin different from other peoples at Draper. (Finlayson 1985, 387).

Given the large size of my publication on the Draper site settlement patterns, this matter was not subject to further investigation at that time and this observation has not been recognized or pursued by others in the intervening thirty-plus years with the exception of James V. Wright (2004, 1353) who accepts this as evidence for a group of Neutrals resident at Draper.

Von Gernet, in his study of Draper site pipes, describes a ceramic pipe with a “triangular bowl with a set of very large spines or frills along the edge facing away from the smoker. The only other known example with such spines is a pipe labelled ‘problematical’ from the Neutral Cleveland site (AhHb-7)” (1985, 131). Given the other instances of artifacts typical of Neutral sites in southwestern Ontario, one wonders whether this might represent another example of the presence of a group of Neutrals who joined Draper as part of Segment E.

As mentioned, there are other indications of a Neutral presence at the Draper site. Poulton noted that the nine foliate bifaces had been examined by Bill Fox (1981). Fox’s study of the notched variety of foliate bifaces states that these “occur primarily on western Neutral villages (with the exception of three specimens from the Draper site) dating between c. 1500 and 1550 A.D.” (1981, 3). Yet, as noted previously none were found in association with House 45 or Segment F of the village.

I also note that four of the specimens are complete, leading to the question of why they were disposed of in middens.

The presence of these three notched specimens which have a Neutral origin may relate to the presence of a group of precontact Neutrals occupying House 45 at Draper. The occurrence of the three notched specimens, two in the Core Village and one in Segment E, suggests the possibility that these were traded by or given by the occupants of House 45 to others in the village.

The recovery of 45 slate pendants (and nine pendant blanks) was noted in Pearce's study of the ground and rough stone artifacts (1985, 9, 10, 25). William A. Fox (2004) noted both the geographic and temporal anomaly of the large number of pendants at this site, since these are most commonly found in southwestern Ontario. He further suggests that "It is entirely possible that these black pebbles from an abode of the Great Horned Serpent did symbolize its scales and all the spiritual power contained therein to local Native peoples...and they also protected the wearer from the Great Horned Serpent itself" (Fox 2004, 295–299). Fox also cites a personal communication from James V. Wright that "there is evidence of a lot of Neutral influences (at this time) such as the apparent Neutral-Huron-Wendat amalgamation at the Seed-Barker site and a Neutral longhouse on the Draper site along with abundant evidence of trade in Onondaga chert" (*ibid.*, 299). Like Birch, Fox seems unaware of the discussion of this matter in my 1985 publication.

An examination of these beads/pendants at the Canadian Museum of History in 2018 resulted in the collection of the provenience of 47 of these specimens. Their distribution across the site is illustrated in Figure 2.21. From this it is apparent that 44 (93.6%) of these items are from middens while only 3 (6.4%) are from houses. The largest number of these beads/pendants (18) are from Midden 52 shared by the Core Village and Segment B while the second largest number are from middens shared by the Core Village and Segment E. None of these were found in House 45 or Segment F. The most important aspect of these beads is their recovery from middens and the question again, is why?

Pearce's publication on the juvenile vessels from Draper illustrates a double orifice juvenile vessel (1978, 24). This was recovered from Midden 56, about 60 m northwest of House 45, which was interpreted as a Neutral house (Finlayson 1985, 387). Such double-mouth vessels are rare but present on Neutral sites (Lennox and Fitzgerald 1990, 415, 416). Could this be the result of a Neutral girl learning pottery manufacture from her mother, one of the occupants of House 45?

McCullough's study of the 931 modified deer phalanges recovered from the 1975 excavations at Draper revealed the presence of a single modified deer phalange bead which "is generally considered to be restricted in time to the prehistoric period and to the area of the Neutral Indians (Wintemberg 1939, 34; James V. Wright 1966, 86)" (McCullough 1978a, b, 40, 42) (Plate 2.14). In addition, my discovery of a single proximal deer phalange with scoring near the distal end is indicative of an aborted attempt to manufacture another of these deer phalange beads (Plate 2.14). Since both these specimens were found outside Expansion 5 (in Middens 52 and 54 respectively),

the location of the Neutral house, this suggests that these were manufactured at Draper by the Neutral residents of House 45 and traded to others in the village.

3.8 Collecting of Pre-Iroquoian Artifacts by the Ontario Woodland Tradition Peoples on West Duffin Creek.

Investigations at Draper resulted in the recovery of 12 pre-Iroquoian projectile points which were manufactured centuries before the occupation of the site. Ten were found during the 1975 and 1978 excavations while single examples were recovered by Ramsden and Hayden (Poulton 1985, 26–28, Plate 12; Ramsden 1968, Figure 7; Ferguson 1979, 103). Also found was a leaf-shaped blade of Flint Ridge Chalcedony which was attributed to the Middle Woodland (Poulton 1985, 27, 28).

For Draper, Poulton stated:

The 1975/1978 examples show a tendency to be concentrated in House 21 and the adjacent Midden 54. The number of pre-Iroquoian artifacts in this part of the site is particularly striking if one considers the comparative paucity of similar specimens from the far richer Midden 52. This clustering indicates that the distribution of pre-Iroquoian chipped lithics on the Draper site is a reflection of differential access within the Huron population of the town, and more specifically that one or more of the residents of House 21 had the greatest access of all to such items (ibid., 32).

The pre-Iroquoian projectile points have been described by Poulton (1979) who noted that:

Distributional data...indicate that these are unlikely to pertain to in-situ pre-Iroquoian components: more probably they represent specimens collected or otherwise obtained by the Huron, perhaps as hunting charms or curios. Judging from the results of the New Toronto International Airport survey (Poulton n.d.) the majority of the artifacts...could have been found locally by the Huron in the course of horticultural activities, although the specimens of Flint Ridge chalcedony were more likely obtained in long distance trade: survey evidence demonstrates that the upper Duffin Creek drainage was virtually abandoned throughout the Middle Woodland period, and these two artifacts, the Vanport projectile point and blade, are the only examples of Flint Ridge chalcedony from Draper and the 131 other sites in the surrounding area (Poulton 1979, 32).

The copper knife, which is similar to the Type B copper knives defined by Wittry (1951, 15) (Finlayson and Pihl 1980, 10) represents another kind of curio or hunting charm. This was recovered from the living floor of House 1.

3.9 Use of Exotic Raw Materials-Native Copper and Marine Shell

A total of eight pieces of native copper were recovered from the 1975 and 1978 excavations at Draper. Included were three beads, a ring, three pieces of scrap copper, and the copper knife described above. Perhaps the most interesting aspect of these pieces is where they were found. Three pieces were found in middens: a bead and two scraps of copper; four were found in the excavated living floors of houses: the knife, the ring, a bead, and a scrap of copper; and only one in a pit within a house: a bead.

Analysis of six of these revealed that all were native copper as indicated in Table 2.16.

Our excavations at Draper also produced four complete and eight fragments of tubular conch shell beads. These are described in a draft manuscript of part of the Draper site bone artifacts by Karen McCullough (1978c) completed before she selected modified deer phalanges for the topic of her M.A. thesis. This manuscript and copies of filing cards describing and, in some cases, illustrating artifacts are on file at the Canadian Museum of History.

3.10 Location of the Draper Site in Relation to Historically Documented Stands of Even-Aged White Pine

I noted in a previous section that the Draper site was located on the eastern edge of a large stand of white pine with “a great many trees” (Figure 2.3). Further, I suggested that the lands east of Duffin Creek may have been left as a Beech-Maple Climax Forest which would have been a source of firewood and a hunting ground for forest dwelling animals such as bear, southern flying squirrel, wolf, and grey fox.

The faunal analysis of part of the mammal remains recovered, revealed that black bear provided the second largest estimate of meat obtained (3,150 pounds, 1429 kg) from at least 15 individuals while wolf and grey fox were only minimally represented and southern flying squirrel was absent (T. Burns 1979, 43).

The identification of charcoal from one midden (52) indicated that maple and beech accounted for 67.1% of the charcoal remains. This is a very small fraction of the charcoal recovered and suggests the preference for these hardwoods and that the

hypothesized Beech-Maple Climax Forest east of the Duffin Creek would have been a prime source for this firewood.

The data on the presence of the large stand of even-aged pine thus provides new insights into the environment around the Draper site and their use by the occupants of the site. Since some of these mapped areas of pine stands contain no reported Iroquoian sites, this suggests that a number of sites remain to be discovered.

3.11 Faunal Analyses of the Draper Site Material

In her study of the Draper site faunal remains, Tiina Burns noted that white-tailed deer comprised 75.1% of the identified faunal remains. Burns had also suggested that one of the matters that should be investigated was to see if there was a decrease in the numbers of deer bones in the different expansions of the Draper village which might suggest over-exploitation of this resource. It is, therefore, interesting to note that Jim Burns' analysis of the faunal remains from Hayden's 1973 excavations reported that 67.0% of the bone he identified was deer (1979, 124). However, it is also important to add that part of the deer bone recovered from House 2 was found in the northwestern end of the house which had been contaminated by the presence of palisades with a midden at their base which had been subsequently dismantled to allow the construction of House 2. Thus, the amount of deer bone recovered by Hayden's work would be lower than the 67% reported by J. Burns. The exact amount cannot be calculated from the published data since the total number of bones in Hayden's units of excavation was not reported. But these data do suggest that there was less deer bone in House 2 than was recorded by Angele Smith for House 12 (80.2% of identified specimens). Since both were very long longhouses which I suggested were chiefs' houses, it would appear, as Tiina Burns proposed, that there was increased pressure on the local deer populations and that less deer were available as the Draper site expanded.

3.12 Chapter Summary

Based on the review of the many publications, theses, and reports on the Draper site investigations and the data contained therein, and the more recent interpretations stemming from the excavation and analysis of the Mantle site, this chapter has addressed a series of issues regarding the Draper site. Included were:

- A reevaluation of some of the interpretations in my 1985 volume relating to the placement of palisades has resulted in a revised sequence of expansions of the site;
- A reconsideration of the placement of House 22, interpreted as a visitors' houses, in relation to palisades surrounding the village indicated that this structure is actually associated with the final expansion of the village. This led to a realization that the two visitors' houses within the village are associated with four rows of palisades and the presence of catwalks inside the palisades. This also led to the suggestion that Structure 42 may represent a visitor's house outside the village when three rows of palisades were used and the visitors could be safely housed outside the village due to lesser threats of attack;
- The realization that our excavations of House 35 had produced evidence that its end was just outside our excavations. This led me to suggest the presence of two additional houses which had been destroyed by the borrow pit created to provide fill for the construction of the railway adjacent to the site in the 19th century. This provides a more accurate estimate of the population of the site;
- A further exploration of the concept of menstrual houses at Draper as suggested by Kimberley Williams-Shuker resulted in the suggestion that such houses were present in each segment of the Draper Main Village and perhaps the South Field;
- Additional thoughts on the nature of the occupation of the South Field houses and as noted above Structure 42 located outside the village;
- A further examination of the placement of longhouses within the different segments of the village to assist in the defense of the village beginning with the addition of Segments B and C;
- More discussion on the presence of a Neutral occupation of Segment F of the Draper site and the presence of a few additional artifacts of Neutral origin; and
- The practice of collecting of pre-Iroquoian projectile points by some of the occupants of Draper.

Chapter 4

Archaeological Investigations of Sites in the Duffin Creek Watershed

Duffin Creek is one of the most intensively surveyed watersheds in south-central Ontario. My goal in this chapter is to provide a general overview of the archaeological investigations of the Ontario Woodland Tradition sites on Duffin Creek to set the stage for understanding the culture historical position of Draper in relation to these other sites, particularly the two other Coalescent Villages—Spang and Mantle.

Early investigations of Iroquoian sites were undertaken by avocational archaeologists such as Andrew Hunter (n.d.), Charles H.D. Clarke, and Frank Ridley (Ridley 1958). Most significant was the early research at the Miller site, which began as a salvage excavation but evolved into a multi-year research project aimed at investigating MacNeish's in situ hypothesis for the origins of the Ontario Iroquoians (Kenyon 1968). Another significant early project involved the 1972 salvage excavations at the Boys site by the Ontario Archaeological Society (Reid 1975).

More recent work has been the result of culture resource management projects on two very large government-owned tracts of lands: the New Toronto International Airport Lands of 7,487 ha expropriated for an airport, and the Seaton Lands, about 8,100 ha, expropriated by the Ontario government for creation of a new planned city south of the proposed New Toronto International Airport. Culture resource management projects adjacent to these two large tracts of land have also added more new sites within this drainage basin.

The inclusion of parts of the Pickering Airport Lands into the Rouge Urban National Park have resulted in renewed archaeological investigations of some sites on former Pickering Airport Lands including Best and Spang (Jenneth Curtis pers. comm., July 19, 2019; Birch and Williamson 2016).

In preparing this summary, I have used published sources and unpublished reports where they are available. For the Pickering Airport Lands Survey, I have used my copy of Dana Poulton's 389-page draft report contained in a 7.6 cm binder which includes photocopies of early word-processed pages with the odd handwritten addition of a

variety of tables and pages of plate captions and figures. Copies of figures and plates are contained in a second smaller binder. There are a few notable page exclusions in my copy including:

- the tables summarizing chert types which I was able to reconstruct from descriptions in text;
- ceramic data for the rim sherds from the Best site; and
- the plan of the excavations of the Peter Webb I site which I was able to obtain in a binder of figures for all NTIA work compiled by Bob Mayer at the museum, a copy of which is in my possession.

In my opinion, Poulton's study is one of the most detailed and historically significant reports on any multi-year program of archaeological survey and test excavations in Ontario. I regret that we did not have the manpower and other resources to publish this report prior to Dana's departure from the museum, after which, he went on to a very successful 30-plus year career in Cultural Resource Management in Ontario where his work on CRM projects is undoubtedly some of the most detailed and comprehensive ever undertaken.

I also had access to three documents my company, This Land Archaeology Inc., prepared for the Greater Toronto Airports Authority as it created new plans for an airport on the Pickering Lands. Included were:

1. Stage One Archeological Assessment of the Pickering Airport Lands (2004);
2. Archaeological Master Plan for the Pickering Airport Lands (2006a); and
3. Pickering Airport Lands Stage 2/3 Archaeological Studies, 2005, Final Report (2006b).

The latter concentrated on the initial reassessment of a small portion of the lands slated for the development of the airport with a specific focus on discovering and assessing 19th century homesteads and farmsteads which had not been documented during the 1976–1978 archaeological surveys.

For the White site, I have a copy of Grant A. Tripp's report on his excavations (1978). Unfortunately, Tripp's report was written before much of the new data on our work at the Pickering Airport was available for comparative purposes. His report is on file at the Canadian Museum of History.

I was also able to access Jacqueline Carter's M.A. thesis on the Spang site (1981) and Peter Timmins unpublished report on the Pugh site which was prepared as part

of a research course with me in the Department of Anthropology at The University of Western Ontario (1981) and R. Williamson's M.A. thesis/published report on the Robin Hood site (1979, 1983).

An impressive number of CRM studies have been completed for the Seaton Lands immediately south of the Pickering Airport Lands and for Highway 407 construction projects involving these lands, as well as for private development of property adjacent to the Seaton Lands. These studies are documented in numerous licence reports, many of which are accessible in the Ministry of Heritage, Sport, Tourism and Culture Industries' PastPortal which I was able to access directly online. Many of the reports prepared prior to the implementation of PastPortal are on file with the Ministry and I was able to obtain copies with the assistance of Rob von Bitter of the Ministry. While I did not get copies of all reports, I was able to get copies of the most important ones and these usually contained summaries of work for which I did not have the report.

In preparing the following, I have focused on those sites for which a cultural affiliation can be inferred from artifacts collected. For both the Seaton and Pickering Airport Lands, there are recorded instances of single finds of a ceramic sherd. While these can be attributed to the Woodland period and probably to the Ontario Woodland Tradition, they are of little use for interpretive purposes in this study.

In order to simplify this chapter, a summary of the details of the excavations and of the artifacts recovered by the various CRM reports is presented in Appendices D to G. In presenting summaries of the artifacts and data recovered, I have chosen to emphasize the diagnostics recovered while summarizing the non-diagnostics. Thus, as a general rule, the number of analyzable rim sherds or vessels are enumerated but the neck/shoulder sherds, body sherds, and fragmentary sherds are lumped together. My goal is to provide the reader with a general idea of the numbers of artifacts recovered and available for study. In many cases, the numbers of diagnostics are limited in spite of the excavation of relatively large numbers of 1 x 1 m squares dug. The net result is that particularly for Uren, Middleport, and Black Creek substage sites, with very few notable exceptions, there are not sufficient diagnostics to allow an accurate assessment of the cultural affiliation of the sites or their occupation in relation to other sites of similar cultural affiliation. As a result, it is not possible to present a more detailed discussion of the occupation of the Duffin Creek drainage like I was able to do in the Crawford Lake area where much better samples of diagnostics were available.

In preparing this section of this study, I will maintain the use of the Ontario Woodland Tradition which involves the continued use of the substages defined by James V. Wright in his *Ontario Iroquois Tradition* (1966) with the modification for the Late Stage provided by Peter Ramsden (1990), an outgrowth of his Ph.D. dissertation which focused on 28 Huron-Wendat sites (1977) and his subsequent research in the Upper Trent Valley. The terms Pickering, Uren, Middleport, Black Creek-Lalonde, and Realignment are used since they are reasonably established in the literature. This includes both published literature and many CRM reports. Further, as detailed in my proposal for the Ontario Woodland Tradition, I believe that this classification system can be applied not only to Ontario Iroquoian sites, but also to Algonquian sites despite the fact that some may have been misinterpreted as Iroquoian sites.

4.1 Early Research

Andrew Hunter was an early avocational archaeologist who worked primarily in Simcoe County, Ontario. However, he did some work in Ontario County and his *Archaeological Sites of Ontario County* (n.d.) is on file at the Royal Ontario Museum. Hunter notes:

1. Site 13, a large village and ossuary on Concession 7 which is the Draper site and its associated ossuary which has not been successfully relocated;
2. Site 14, a village on Concession 8 northeast of Draper which has not been relocated; and
3. Site 16, an ossuary located on Concession 7 which has not been relocated.

It is interesting that three of these four sites remain to be located despite the archaeological survey of more than 13,000 acres (5,261 ha) of the NTIA lands. To my knowledge, we did not have access to Hunter's notebook at the time of the NTIA survey. This does demonstrate some limitations of our knowledge of the Ontario Woodland Tradition occupation of these lands.

Of major importance was Walter Kenyon's excavations at the Miller site, a Pickering Village which was excavated between 1958 and 1961 (Kenyon 1968). The area excavated was 47,675 sq ft (4,429 sq m) (ibid., 16). Features included a single row of palisades and six houses within the excavated area. Of significance was the presence of six short longhouses exhibiting two orientations. Houses 1, 3, 5, and 6 are oriented northeast-southwest, while Houses 2 and 4 are oriented northwest-southeast. This

suggests the presence of two clan segments living in the village. James V. Wright proposes that the size of the village suggests the possibility of 10 to 12 houses being present (2004, 1342). There was also an enclosure between House 2 and the palisades which might represent a special structure to accommodate visitors to the village.

Burials were found: one within one house (#5), three outside houses (#3, 4, and 6) within the village, and three outside the village (#1, 2, and 5) including the multiple burial (#1) containing 13 individuals which led to the discovery of the village. The latter, along with other multiple burials on the site, are often cited as early examples of ossuary burial among the Ontario Iroquois (James V. Wright 1994, 1342). One of the individuals buried on the site had been shot with the tip of the chert projectile point still imbedded in one of the vertebrae (Ossenberg 1969 in Keenlyside 2013, 185).

Also of interest was the discovery of several large pits which may represent pits for the storage of foods. Tyyska identifies the presence of sweat baths at Miller (2015, 73).

Of major significance was the recovery of 7,679 rim sherds from the excavations at Miller (Kenyon 1968, 38). This represents a ratio of 173 rim sherds per 100 sq m of excavations. When compared to the Draper site excavations which produced only 39 rim sherds per 100 sq m of excavations, this suggests that the Miller site was occupied for a very prolonged period, probably more than 100 or 150 years, a situation similar to that discussed by Fecteau, Molnar, and Warrick (1994) for the Pickering sites in the area defined by Finlayson (1998, 177) as the Burlington locality.

The Miller site excavations are significant in that they produced a wide variety of artifacts which are diagnostic of the later occupation of Duffin Creek. Included were 21 ceramic gaming discs, 397 clay pipes, three ceramic beads, two clay balls, 61 hammer and anvil stones, 32 celts, 65 whetstones, one stone disc, 21 steatite pipes, 89 projectile points, 269 side scrapers, 29 end scrapers, four drills, two blades, 35 bone awls (at least two of which I would classify as bone hairpins), one bone netting needle, two bone points, one conical bone point, one bone bead, three bone harpoons, two bone pottery markers, one bear canine pendant, one bear canine graving tool, one turtle shell rattle fragment, modified fish spines (not tabulated), one shell pendant of a salt water gastropod, two conch shell beads, two copper awls, and seven copper beads (Kenyon 1968, 26–32).

Two aspects of this collection of artifacts are worthy of note. One is the relatively small number of other types of artifacts compared to the 7,679 rim sherds. Secondly, the artifact collection as a whole is very similar to the material culture of later Iroquoian sites on the Duffin Creek drainage and beyond. The most notable artifacts missing are modified deer phalanges, which do not appear until the Boys site.

Other early research on the Duffin Creek was undertaken by Clarke and Ridley in 1955 which resulted in the investigation of the Boys (AlGs-10) and Carleton (AlGs-11) sites (Konrad 1974). Based on excavations in one midden, Boys was initially identified as a Uren site (Ridley 1958, 39 in Reid 1975, 2) and eventually reclassified as an Early Ontario Iroquois site (Ridley 1958) and then as a Glen Meyer focus site (Lee 1958 cited in Reid 1975, 2).

The Carleton site (AlGs-11) was also identified as another Early Iroquois site although the presence of a Late Ontario Iroquois component on this site is noted (Konrad and Ross 1974, 12). Konrad also documents the Deckers Hill site (AlGs-14) as an additional Early Ontario Iroquois site which had been destroyed (Dolling 2003, 31).

Excavations at Boys were undertaken by the Ontario Archeological Society in the summer of 1972 and the results of that work incorporated into excavations in the fall of 1972 and the summer of 1973 which constituted the data for a M.A. thesis by C. S. Reid. Three middens, two houses, and evidence of palisades were found and the site was estimated to be 1.1 acres (.45 ha) in size (Reid 1975). House 1 was 30.3 feet (9.2 m) wide and more than 54 feet (16.5 m) long while House 2 was 26.5 feet (8.1 m) wide and 46.8 feet (14.8 m) long (Reid 1975, 4, 6).

Notable aspects of the artifact assemblage were 379 rim sherds, 51 fragment of juvenile vessels, 31 pipe fragments, 95 bipolar pieces/wedges (not identified by Kenyon at Miller), two net sinkers, a steatite pipe bowl and the mouthpiece of a platform pipe, a fragment of a slate pendant, a worked bear canine, nine worked rodent incisors, and two worked deer phalanges one being of "the cup and pin variety" (Reid 1975, 24–32). The addition of these artifacts, particularly the modified deer phalanges, rounds out the Pickering assemblage as the demonstrable precursor to later assemblages on later Ontario Woodland Tradition sites on the West Duffin Creek. Of note is the presence of a slate bead/pendant, not mentioned by Fox (2004) indicating an early use of these by the Iroquoian occupants of Duffin Creek.

Another early investigation involved the excavation of the Garland Ossuary (AlGs-13) which was excavated by Father Arnold Megan with students from St. Michael's College in 1958. The ossuary was 3 m in diameter and 1.4 m deep. Grave inclusions recovered were two shell buttons and an arrowhead (Webb 1969, 44).

The osteological study of the Garland Ossuary remains was undertaken by James D. Webb. He reports that at least 200 individuals were identified with equal numbers of males and females of which 31% were identified as immature individuals. Webb's

study suggests that the Garland Ossuary was most closely affiliated with the populations from Ontario Woodland Tradition Pits burials at Serpent Mounds and Fairty Ossuary. Webb concludes that Garland is “a Late Woodland representative of the Ontario Iroquois” (ibid., 113) and quotes a personal communication from Walter Kenyon that the site dates to approximately A.D. 1400.

In his study of the Garland Ossuary skeletal material, El Molto notes that:

Subsequent to Webb’s analysis, a historic trade bead was found in a box of bones that was overlooked in the original analysis. The bead is unquestionably associated with the ossuary as it was lodged inside an osseous cavity (D.M. Stothers personal communication). Because of this, the Garland Ossuary is provisionally assigned to James V. Wright’s Late Ontario Iroquois stage, dating circa A.D. 1500 to 1550. Even this date may be somewhat early, but it is the best estimate on such slim evidence (1983, 92–93).

Clearly, this bead needs to be relocated and a more detailed description and analysis provided of it.

Williamson, in his summary of burial practices of the Ontario Iroquoians, dates Garland to the 17th century (2003, 100) with no explanation for this date.

In the City of Vaughan Official Plan, Archaeology and First Nations Policy Study prepared by Archaeological Services Inc., the Garland Ossuary included in the Evaluation of Suitability for ossuary Modelling is “Tentatively Accepted: No village association, but site location reliable” (2010, 44).

Yet, given the extensive surveys in the area, the location of the Garland Ossuary seems anomalous since it is 4.3 km southwest of the Uren substage Gimiiwaan village and 5.3 km south-southeast of the Black Creek substage Wilson Park site. It is even further from the Mantle site located 13.9 km to the northwest which has produced the earliest evidence of European trade goods on any Iroquoian site on Duffin Creek. Perhaps there is a yet-to-be-discovered Ontario Woodland Tradition village close to Garland. Alternatively, given its position just within the boundary of Duffin Creek drainage, could it be an Algonquian ossuary considering its possible 17th century dating and previously unacknowledged use of ossuaries by Algonquians in northern Ontario and beyond (Hickerson 1960; Jackson 2020)? Hickerson documents significant evidence for the use of ossuaries by the Algonquians, which, given the possibility of an Algonquian occupation at the Mantle site as espoused by Birch, certainly requires further consideration that Garland is an Algonquian ossuary. This position has recently

obtained additional support from Jackson's review of the evidence for Algonquian ossuaries and the possibility that the Poole-Rose Ossuary is Algonquian.

Clearly more research needs to be done on the Garland Ossuary including some mitochondrial DNA testing with the objective to investigating the possibility that this might find evidence of numbers of X haplogroup as proposed by Karcich (2014) which would indicate the presence of Algonquian peoples in this ossuary. Should this prove to be an Algonquian ossuary or an Iroquoian ossuary in which Algonquian individuals were interred, it would provide much needed new insights into their occupation of Duffin Creek and adjacent parts of the north shore of Lake Ontario by Algonquian peoples during the Ontario Woodland Tradition period.

4.2 Archaeological Survey and Test Excavations of Sites on the New Toronto International Airport Property, on Seaton and Adjacent Lands

Early investigations of the archaeological resources of the Pickering Airport and Seaton Lands was part of investigations of the Metropolitan Toronto Planning Area and the subsequent North Pickering Study by Victor Konrad (Konrad 1973; Konrad and Ross 1974). These early studies were instrumental in the early investigations of the Draper and White sites by the Ontario Archaeological Society as discussed.

After the cancellation of airport construction in 1975, the Archaeological Survey of Canada, National Museum of Man, and National Museums of Canada arranged for funding from Transport Canada to undertake archaeological surveys of the 18,500 acres (7,486 ha) of land expropriated. These surveys were undertaken in 1976 under my project direction and the field direction of John Dawkins as well as field and project direction of Dana Poulton in 1977 and 1978. A total of 13,500 acres of land were surveyed and 125 new sites discovered, bringing the total number of Ontario Woodland Tradition sites to 18 (Finlayson and Dawkins 1977; Finlayson and Poulton 1979a, b; Poulton 1977a, 1977b, 1979).

Except for a small project by Poulton to attempt to locate the historically documented Whitton Ossuary associated with Draper and an investigation of part of the Peter Webb I site due to its proximity to Highway 407 construction, field work at the Pickering Airport on Indigenous sites ceased until recently. However, in 2005, archaeological surveys of the Pickering Airport Lands were resumed under my direction to search for and assess Euro-Canadian sites which were not recorded in the 1976–78 surveys (TLA 2006b), but no new Indigenous sites were found. The creation

of the Rouge Park in 1995 and subsequent successful efforts of Parks Canada to create Rouge Urban National Park, resulted in archaeological investigations of the Dent Brown, Best, and Spang Iroquoian sites formerly on Pickering Airport Lands (Jenneth E. Curtis, pers. comm. July 9, 2019; Birch 2016).

As the work on the Airport Lands wound down in 1978, work on the Seaton Lands began with the survey by David Spittal (1978) and test excavations by Mary Ambrose (1981) who were working for the Ontario Government agencies responsible for these provincial lands (now Infrastructure Ontario). These assessments resulted in the discovery and investigation of many sites on the Seaton Lands and represent a remarkable commitment to the assessment of, and preservation of, the most significant Ontario Woodland Tradition sites found. Associated with the work on Seaton Lands have been archaeological assessments of the Highway 407 corridor and its associated access roads and the development of adjacent private lands.

While very significant archaeological studies have been completed within the Pickering Airport and Seaton Lands and lands directly adjacent to the latter, large portions of the Duffin Creek drainage remain unstudied, particularly the upper reaches of the eastern branch of the creek north of Highway 407 and east of the Pickering Airport Lands. Accordingly, our knowledge of the occupation of these areas remains limited except for the Ph.D. research by Macdonald (2002). Substantially more data have been collected since Macdonald's research and our understanding of the significance of the sites discussed here continues to be of a preliminary nature given gaps in the occupation which will be detailed throughout the remainder of this chapter.

4.3 The Ontario Woodland Tradition Occupation of Duffin Creek

In undertaking this review, I have adopted a modified version of James V. Wright's Ontario Iroquois Tradition. This seminal study has generally remained the organizing culture-historical construct used to describe and analyze the Late Woodland Iroquoian occupation of large parts of south-central and southwestern Ontario. This was verified time and time again in reviewing the CRM reports, the results of which are presented herein. The reason for this is that most of us working in the field and describing and analyzing Iroquoian sites recognize the utility of the construct in detailing the results of our studies. In most cases, my review of the following reports resulted in my agreement of each site's culture-historical placement.

In adopting this approach, I reject the abandonment of the use of this culture-historical construct in favour of placing sites in 50-year chronological cubby-holes for each different drainage.

My modification of the Ontario Iroquois Tradition as originally defined by James V. Wright is based on the recent realization that not all Iroquoian occupants of south-central Ontario can be “ancestral Hurons” as implied in James V. Wright’s use of the term “Southern Division Huron.” This stems from the recent re-dating of the Draper-Spang-Mantle sequence of sites by Manning et al. (2018). Basically, if Mantle is contemporaneous with Cahiaque, then at least the occupants of Duffin Creek were not part of the historic Huron-Wendat Confederacy as defined by Heidenreich (1971), Trigger (1976, 1987), Warrick (2008), Sioui (1999), and Williamson (2014a) since the southern border of the Confederacy was well within the confines of what is now Simcoe County.

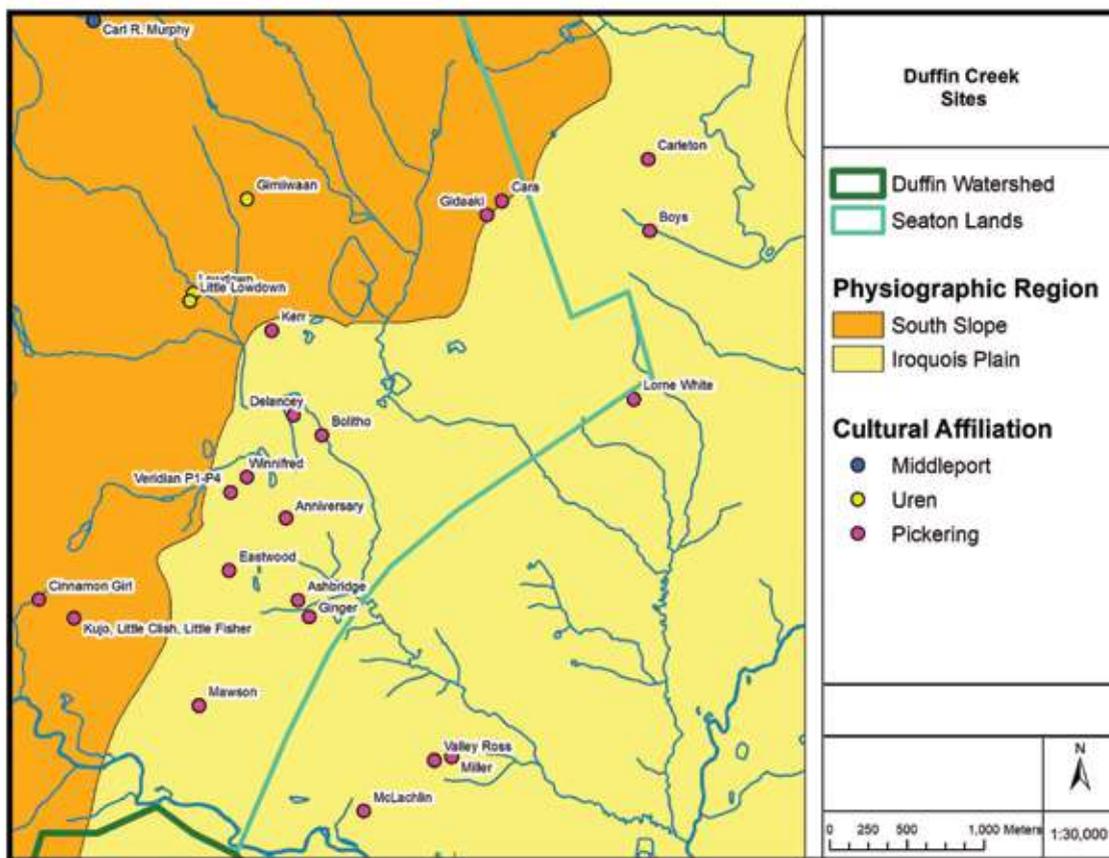
In reviewing the various CRM reports on sites within the drainage, it was noted that for most villages in and adjacent to the Seaton Lands, the samples of rim sherds were generally quite small, usually less than 50 analyzable rim sherds or ceramic vessels and were not generally of sufficient numbers to undertake valid comparisons between sites. This seems to be, in part, a decision of Infrastructure Ontario to focus on defining, in a very preliminary fashion, the extent of these villages while not attempting to get analyzable samples of rim sherds and other artifacts to allow an understanding of who lived there and when. Similarly, for the Seaton Lands, the Stage 3 attempts at defining the edges of the villages by the excavation of several test trenches generally failed to define the edges of the villages but rather loosely identified a buffer around the possible edges of the village. The net result is that there are not good estimates of the size of these villages.

However, it did become apparent that for many of the sites investigated there were reasonably good samples of chert largely in the form of chipping detritus and that the various authors had visually identified the types of chert present. While recognizing that there may be potential issues with the visual identification of chert, my impression was that identification of the most common chert types can be reasonably accurate, even though such identifications were made by different archaeologists with different levels of expertise in chert source identification. Recognizing this caveat, I compiled tables of chert identification and noted several different patterns in the use of various chert sources at different times in the occupation of Duffin Creek. These patterns are presented on the following pages along with possible preliminary explanations. It is clear, however, that these patterns need to be subject to further study by the re-

examination of all collections by a single individual using more refined techniques of identification such as those suggested by Scarlett Janusas (1984) especially for the more exotic cherts. Detailed data on chert sources identified are presented in Appendices D to G.

4.3.1 Pickering Substage Sites

Figure 4.1: Location of Pickering Substage Sites on Duffin Creek



There are at least six Pickering substage village sites on the Duffin Creek drainage (Figure 4.1). These include Miller (Kenyon 1968) and Boys (Reid 1975) as well as Ginger, Winnifred, Bolitho, and Delancey (Spittal 1978; Ambrose 1980). It has also been suggested that at least two other Pickering villages have been destroyed, Carleton (Reid 1975) and Deckers Hill (DRPA 1994a, b, 36). There are also a relatively large number of special purpose sites discovered during various Stage 2 investigations, many

of which have been subject to Stage 3 and Stage 4 investigation. Miller and Boys have been described (see pages 193, 194) but more recent work adjacent to the Miller site is reviewed here.

It is interesting to note that Spittal used a unique method to investigate the chronological ordering of the sites investigated on the Seaton Lands in 1979 which was adopted by Ambrose (1980). This involved creating a table showing the occurrence of the major tools used in decorating the exterior of the vessels (dentate, push-pull, and linear stamp) along with the occurrence of decoration on the lip (dentate and plain) and interior (dentate and plain). Using this approach, there are different frequencies of attributes for each of these parts of the ceramic vessel since sometimes certain parts (the interior) are absent. One of the problems with these data tables is that the vessels, or parts of vessels, used varies but none are tabulated. I have reproduced the table presented by Ambrose (1980, 84) (Table 4.1) and have added the frequency of analyzable rim sherds for each site.

Table 4.1. Rim Sherd Attributes for 7 Pickering Sites
(from Ambrose 1980, 84)

| Site | Miller | Ginger | Winnifred | Bolitho | Boys | Delancey | Bennett |
|------------------|---------------|---------------|------------------|----------------|-------------|-----------------|----------------|
| No. Rims | 7679 | 41 | 38 | 123 | 379 | 25 | 372 |
| | Spittal | Spittal | Spittal | Ambrose | Spittal | Ambrose | Spittal |
| | (1978, 57) | (1978, 57) | (1978, 57) | (1978, 57) | (1978, 57) | (1978, 57) | (1978, 57) |
| ATTRIBUTE | % | % | % | % | % | % | % |
| Exterior | | | | | | | |
| Dentate | 67 | 56 | 40 | 37 | 29 | 4 | 3 |
| Push-pull | 9 | 12 | 40 | 11 | 20 | 8 | 55 |
| Linear stamp | 6 | 12 | 11 | 18 | 20 | 28 | 17 |
| Lip | | | | | | | |
| Dentate | 69 | 58 | 60 | 43 | 35 | 9 | 4 |
| Plain | 9 | 12 | 9 | 5 | 12 | 24 | 41 |
| Interior | | | | | | | |
| Dentate | 64 | 45 | 51 | 29 | 23 | 3 | 1 |
| Plain | 17 | 45 | 46 | 45 | 49 | 24 | 66 |

It is worth noting that some of these Pickering sites may actually be Algonquian sites, or contain Algonquian components, something which could only be investigated by a very detailed study of the artifact assemblages, most of which would have to be supplemented by additional excavations where needed.

A brief summary is provided for the villages followed by similar information on the special purpose sites. This information is presented in Appendix D for villages and Appendix E for special purpose sites.

4.3.2 Observations on the Pickering Substage Occupation of Duffin Creek

The following observations can be made about the Pickering substage sites on Duffin Creek.

All Pickering villages and almost all the special purpose sites are located within the Iroquois Plain physiographic region. The exceptions are the special purpose sites Cinnamon Girl and the Kujo-Little Clish-Little Fisher sites which are located on the South Slope physiographic region less than one km north of the Iroquois Plain. The “soft stone-free soils of the lacustrine deposits and the diminished frost hazard near the lake” (Chapman and Putnam 1966, 331) may have been contributing factors for the occupation of this physiographic region by the early agricultural Pickering people.

It appears that there may be two communities of Pickering substage people present. There may be an eastern community situated on the eastern branch of Duffin Creek comprised of the Boys and perhaps the destroyed Carleton site with the Cara, Gidaaki, and Lorne White special purpose sites located to the west of these villages. This community may be ancestral to the later Uren substage Miindaamiin village and perhaps others yet to be located.

A second community, located on a central branch of Duffin Creek, appears to be comprised of the Miller, Ginger, Winnifred, Bolitho, and Delancey villages with the Anniversary, Ashbridge, Cinnamon Girl, Eastwood, Cara, Gidaaki, Kerr, Kujo, Little Clish, Little Fisher, Mawson, McLachlin, and Veridian P1–P4 as special purpose sites again located to the west or in the case of Kerr, north of these villages.

Spittal has suggested a sequence of Miller to Ginger to Winnifred based on the changes in exterior decorative techniques on the samples of rim sherds. He suggests that Ginger may date to A.D. 884 and Winnifred to A.D. 904 (1978, 57). Given the probable northward relocation of villages, Bolitho would post-date Winnifred and Delancey would post-date Bolitho.

Based on Table 4.1, Miller to Ginger to Winnifred to Bolitho to Delancey sequence of Pickering villages on the central branch of Duffin Creek seems to span the more than 500 years of the Pickering substage. I have noted elsewhere that Miller may have been occupied for 100 to 150 years, but the presence of only five Pickering villages in this sequence would suggest an average length of occupation of about 100 years per village. Given the intensive surveys of the Seaton Lands, it seems unlikely that there are additional Pickering villages which have not been located. Similarly, the eastern branch of Duffin Creek is the location of the Boys site which dates later than Winnifred (Spittal 1978, 57) again suggesting a paucity of enough Pickering substages sites to cover the 500 years of this substage. This lack of sites is particularly pronounced when compared to the Crawford Lake area where 10 Pickering villages—Tara West to Tara East to Ireland to Five Acre Field to Kraus to Centre Track to Coverdale to Gunby to South Track to Bennett—span the 330 plus years from A.D. 1000 to A.D. 1330 (Finlayson 1998b, 372). Further, it is noted that the site sizes of Tara West (0.3 ha), Tara East (0.4 ha), and Ireland (0.5 ha), are comparable to the site sizes of Bolitho, Winnifred, and Miller (0.5 ha each), while site sizes for the other sites, Five Acre Field (1.1 ha), Kraus, and Centre Track (1.9 ha), Coverdale (size unknown), Gunby (1.1 ha), South Track (1.0 ha), and Bennett (1.4 ha) are significantly larger. While I believe the larger sizes of Pickering sites in the Crawford Lake area are related to the frontier with Glen Meyer Algonquians (James V. Wright 2004, 1425ff) to the west, there is still a significant difference in the nature and extent of the Pickering occupations of the Duffin Creek compared to the Crawford Lake area. Since the Crawford Lake area and Duffin Creek are the only two areas with significant sequences of Pickering villages and associated special purpose sites, further research is necessary to explain the differences between these two areas and whether the differences are related to population movements between them.

Given the intensive investigation of the special purpose sites, it is important to note that none of these special purpose Pickering substage sites have evidence of house structures or significant features in the subsoil such as hearth floors. This indicates a very different settlement pattern than is apparent in later substages of the Middle Ontario Woodland Peter Webb I and Salgo sites and Late Ontario Woodland sites on the western branch of Duffin Creek such as White, Carruthers, and Robin Hood.

In undertaking research for this volume, I noted that for most of the Pickering, Uren, and Middleport sites there were not enough analyzable rim sherds to undertake significant comparisons for purposes of establishing the chronological order of the sites being discussed. I did note that there were larger samples of chipping detritus and in some cases chert tools and that generally data was available on the sources where this chert was obtained. In all cases, chert source was determined by visual examination of the samples recovered. While there are undoubtedly variations in identification by the different individuals undertaking these studies my initial summary of the data presented in the myriad of CRM reports suggested that there appeared to be significant differences in the sources of cherts utilized during the different substages of occupation of Duffin Creek.

Onondaga chert was by far the most common on Pickering substage sites (62.7%, Table 3.5) and its use declines in the Uren substage (39.7%) and declines further in the Middleport substage (33.8%) and then predominates on Black Creek (89.3%) and Realignment (97.5%) substage sites. Details are presented in subsequent parts of this chapter, but clearly there were significant changes over time and these need to be examined and explanations offered, if only in a preliminary fashion. These data do suggest that these samples need to be restudied by a single individual to eliminate observer error.

For purposes of this study, I have adopted the interpretations of Poulton that “locally available materials comprise Balsam Lake and Trent Valley cherts, a chalcedony-like chert, quartz, quartzite and limestone” (1985, 3) rather than visits to the quarries located some distance to the northeast or by trade with intervening Algonquian neighbours. Chert data are summarized in Table 4.2 and details for each site are presented in Tables H.1 to H.10 in Appendix H. To simplify these tables, cherts identified by colour with no associated source data were placed in the unidentified category. It is noted that the chert sources were identified by several different individuals from various private companies with varying experience in visual chert source identification.

Table 4.2. Summary of Chert Type Sources for Ontario Woodland Co-Tradition Sites on Duffin Creek

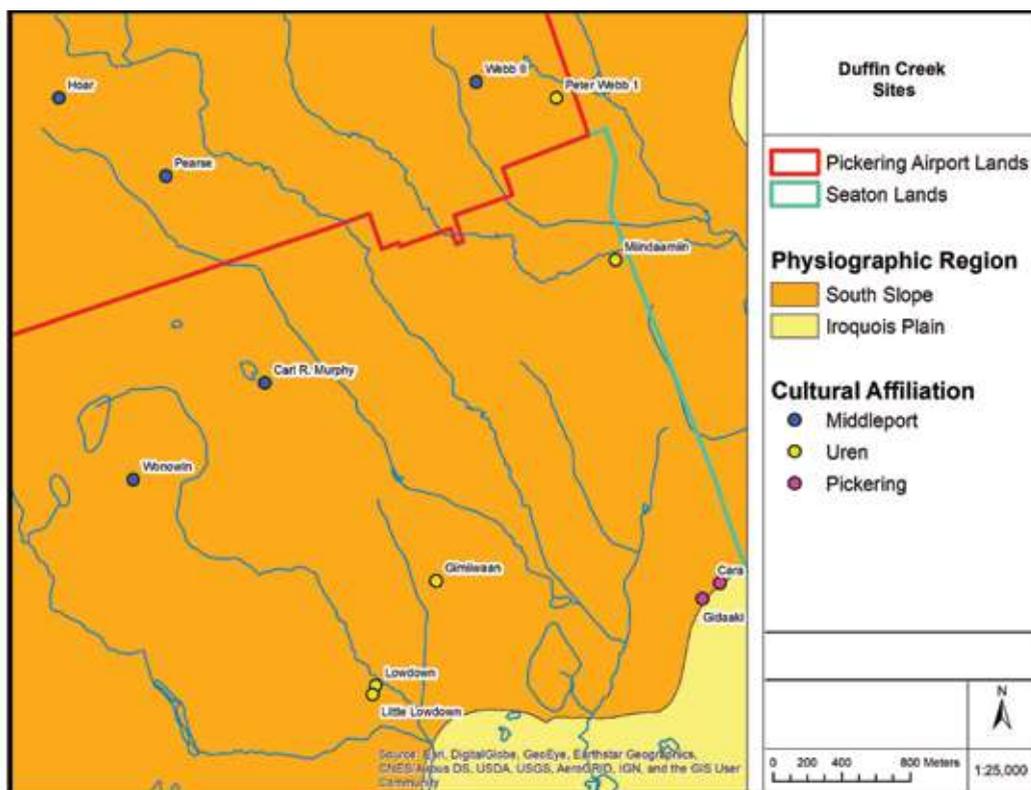
| Site Cultural Affiliation | Pickering Substage Sites Total | | Uren Substage Sites Total | | Middleport Substage Sites Total | | Black Creek Substage Villages Total | | Realignment Substage Sites Total | | Duffin Creek Late Woodland Total | |
|---------------------------------|---|------|------------------------------------|------|--|------|--|------|---|------|---|------|
| | No. | % | No. | % | No. | % | No. | % | No. | % | No. | % |
| | | | | | | | | | | | | |
| Lockport | 0 | 0.0 | 17 | 0.7 | 13 | 0.6 | 0 | 0.0 | 0 | 0.0 | 29 | 2.3 |
| Onondaga | 499 | 62.7 | 915 | 39.7 | 696 | 33.8 | 797 | 89.3 | 14,374 | 97.5 | 1,210 | 97.1 |
| Ancaster | 0 | 0.0 | 0 | 0.0 | 6 | 0.3 | 0 | 0.0 | 2 | 0.0 | 0 | 0.0 |
| Haldimand | 0 | 0.0 | 17 | 0.7 | 8 | 0.4 | 0 | 0.0 | 0 | 0.0 | 1 | 0.1 |
| Bois Blanc | 0 | 0.0 | 4 | 0.2 | 9 | 0.4 | 3 | 0.3 | 36 | 0.2 | 0 | 0.0 |
| Selkirk | 0 | 0.0 | 4 | 0.2 | 3 | 0.1 | 0 | 0.0 | 1 | 0.0 | 0 | 0.0 |
| Indeterminate Devonian | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 2 | 0.0 | 0 | 0.0 |
| Kettle Point | 0 | 0.0 | 107 | 4.6 | 14 | 0.7 | 3 | 0.3 | 97 | 0.7 | 0 | 0.0 |
| Collingwood | 11 | 1.4 | 0 | 0.0 | 2 | 0.1 | 0 | 0.0 | 12 | 0.1 | 0 | 0.0 |
| Fossil Hill | 0 | 0.0 | 19 | 0.8 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Huronian | 0 | 0.0 | 5 | 0.2 | 0 | 0.0 | 5 | 0.6 | 5 | 0.0 | 0 | 0.0 |
| Bobcaygeon | 0 | 0.0 | 204 | 8.9 | 3 | 0.1 | 0 | 0.0 | 1 | 0.0 | 0 | 0.0 |
| Gull River | 0 | 0.0 | 8 | 0.3 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0 | 0.0 | 2 | 0.1 | 3 | 0.1 | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Bayport | 0 | 0.0 | 5 | 0.2 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Mercer | 0 | 0.0 | 36 | 1.6 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 73 | 9.1 | 177 | 7.7 | 869 | 42.2 | 2 | 0.2 | 19 | 0.1 | 0 | 0.0 |
| Trent Valley | 0 | 0.0 | 36 | 1.6 | 56 | 2.7 | 0 | 0.0 | 9 | 0.1 | 0 | 0.0 |
| Flint Ridge Chalcedony | 2 | 0.3 | 0 | 0.0 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0 | 0.0 | 31 | 1.3 | 4 | 0.2 | 1 | 0.1 | 15 | 0.1 | 5 | 0.4 |
| Chalcedony-like | 0 | 0.0 | 1 | 0.0 | 9 | 0.4 | 0 | 0.0 | 18 | 0.1 | 0 | 0.0 |
| Norwood | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |

| | | | | | | | | | | | | |
|------------------|-----|-------|-------|-------|-------|-------|-----|-------|--------|-------|-------|-------|
| Quartz | 60 | 7.5 | 219 | 9.5 | 8 | 0.4 | 2 | 0.2 | 58 | 0.4 | 0 | 0.0 |
| Quartzite | 0 | 0.0 | 23 | 1.0 | 20 | 1.0 | 0 | 0.0 | 5 | 0.0 | 1 | 0.1 |
| Local Till Chert | 17 | 2.1 | 11 | 0.5 | 108 | 5.2 | 4 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Indeterminate | 133 | 16.7 | 464 | 20.1 | 227 | 11.0 | 73 | 8.2 | 94 | 0.6 | 0 | 0.0 |
| Total | 795 | 100.0 | 2,305 | 100.0 | 2,061 | 100.0 | 892 | 100.0 | 14,748 | 100.0 | 1,246 | 100.0 |

For all Pickering substage sites, 62.7% of the chert was Onondaga indicating that the majority of chert used was obtained either directly by visits to the sources in southwestern Ontario or indirectly by trade with local populations to the west. There was limited use of Balsam Lake chert (9.1%), quartz (7.5%), other local till cherts (2.1%), trace amounts of Flint Ridge chalcedony (0.3%) from Ohio, and possible Norwood chert (0.1%) from Michigan. Relatively large amounts of the cherts could not be identified as to source (16.7%).

4.4 Uren Substage Sites

Figure 4.2: Location of Uren Substage Sites on Duffin Creek



There are currently two known Uren substage villages, Miindaamiin and Sebastien (Gimiiwaan), and three special purpose sites, Peter Webb I, Lowdown, and Little Lowdown (Figure 4.2). The lack of more sites is interesting and may represent a limited occupation of Duffin Creek drainage during the Uren substage. However, this may also be a result of inadequate archaeological surveys of the private lands immediately east of the Pickering Airport Lands. It may also be a result of the lack of discovery of additional Uren villages on the Pickering and Seaton Lands in areas not subject to archaeological assessments. This is a more likely interpretation given the presence of a large stand of pine east of Miindaamiin (see Figure 2.3). However, if there was a limited occupation of the drainage at this time, this needs to be explained. A brief summary of these Uren substage sites is presented in Appendix E.

4.4.1 Observations on the Uren Substage Occupation of Duffin Creek

The Uren occupation represents the first significant occupation of the South Slope physiographic region, a till plain, and the abandonment of the Iroquois Plain with its lighter soils and with less chance of frost.

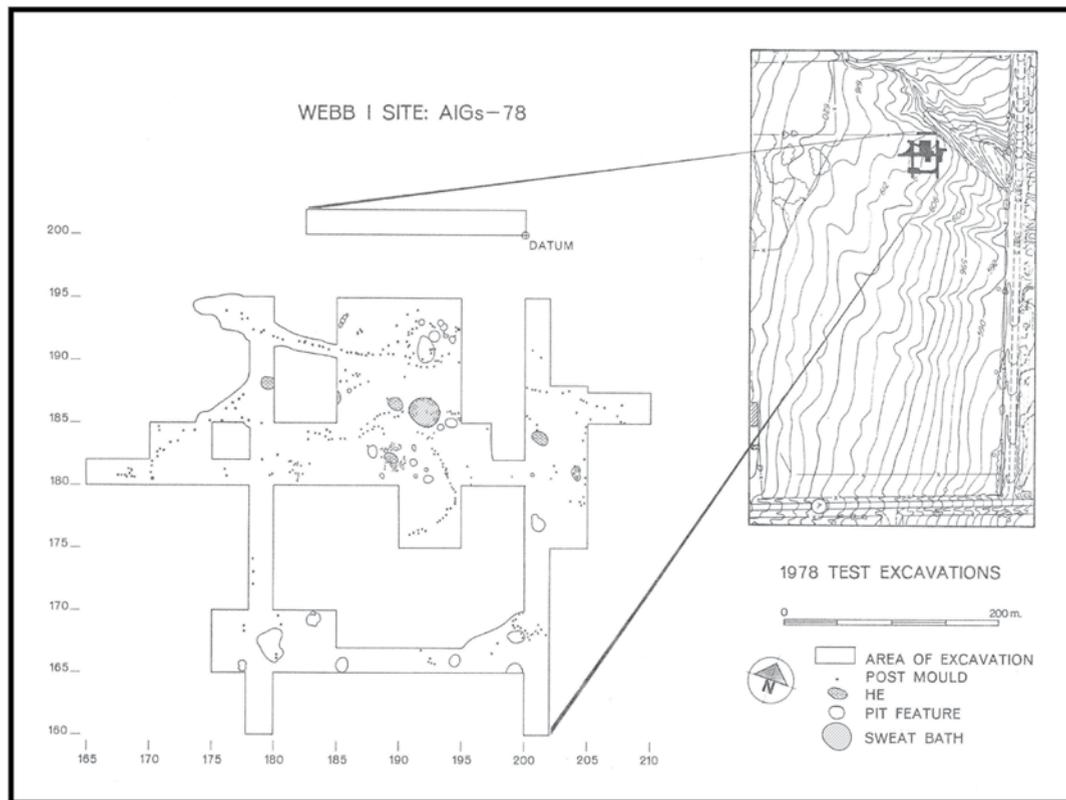
On the eastern branch of Duffin Creek the single known village, Miindaamiin, is estimated to be 2.5 ha in extent and may represent a Uren occupation related to the earlier 0.5 ha Boys site located about 1.0 km to the south. Peter Webb I represents a single special purpose site, perhaps a seasonally occupied hamlet. This is based on the excavations by Poulton which found evidence of two house structures (Figure 4.3) and an exterior house circular cluster of post moulds interpreted as a temporary above-ground sweat bath (Poulton 1979). As detailed in Appendix E, the samples of artifacts from these sites are generally small.

On the central branch of Duffin Creek there is the 2.5 ha Sebastien site with two special purpose sites, Lowdown and Little Lowdown, which are located about 0.7 km and .75 km to the southwest.

Sebastien is particularly interesting in that it produced a small sample of rim sherds (35) but had a relatively large numbers of pipe fragments (134). This suggests the possibility of the movement of Uren people into the area. This inference is based on the high numbers of pipe fragments which are interpreted as evidence for feasting related to alliance formation and maintenance. It is hypothesized that this is similar to the situation in the Crawford Lake area where at least three communities moved into the area to surround the original community of Middleport people who had lived in the area for more than 300+ years (Finlayson 1998b). In the Crawford Lake area,

there were increased occurrences of high collared pots and pipe fragments suggestive of alliance formation and maintenance. Clearly, much larger samples of artifacts are required from these sites to test this hypothesis. This should include a search for very small numbers of high collarless vessels, a precursor to high collared pottery vessels and perhaps increased numbers of other artifacts such as modified deer phalanges and bone beads which could be indicative of community identification.

Figure 4.3: Plan of Excavations at the Peter Webb I Site



The presence of the above-ground sweat lodge at Peter Webb I located outside the house (Figure 4.3) may also be indicative of the use of sweating to integrate new arrivals into the area.

These comparisons to the Uren substage occupation of the Crawford Lake area are instructive. In that area there were three sequentially occupied villages: Laurensen, Scout, and H&R, which had widely spaced houses and lacked palisades. I interpreted this change in village settlement pattern to be a function of the conquest of Glen Meyer

people by Pickering people (James V. Wright 1966, 1992, 2004; Finlayson 1998b) whereby the frontier with Glen Meyer people had moved westward, thus removing the need for palisaded villages. Alternatively, the larger size of Miindaamiin and Sebastien might also represent the creation of earlier Coalescent Villages created to defend a frontier with hostile populations to the east. These matters can only be resolved by the further investigation of these sites to determine if the longhouses are widely spaced and lack palisades or more tightly packed with palisades present.

It is also worth noting that presence of the special purpose Peter Webb I site may represent the beginnings of more substantial sites of this type which are found on later Middleport substage sites such as the Salgo and the Realignment substage White, Carruthers, and Robin Hood which are believed to be seasonally occupied hamlets. However, the earlier pattern of special purpose sites associated with Pickering villages which lacked settlement features such as house structures, hearths, and pits was also found at Lowdown and Little Lowdown.

One of the other significant observations is that the use of Onondaga chert drops to 39.7% compared to 62.7% for the preceding Pickering substage sites. There is also evidence for use of small amounts of Kettle Point chert (4.6%), as well as slight evidence for the use of Haldimand (0.7%), Bois Blanc (0.2%), Selkirk (0.2%), and Lockport (0.7%) cherts from the north shore of Lake Erie and the west end of Lake Ontario. There was also the use of minor amounts of Fossil Hill (0.8%) and Huronian (0.2%) cherts suggestive of trade with the occupants of selected areas of the south shores of Georgian Bay. The larger amounts of Balsam Lake (7.7%), Bobcaygeon (8.9%), Trent Valley (1.6%), and Gull River (0.3%) cherts raises the question about whether these were obtained from local till deposits as suggested by Poulton or represent trade with Algonquian neighbours. There are trace amounts of cherts from further afield including Hudson Bay Lowland chert (0.1%) from Northern Ontario, Bayport chert (0.2%) from Michigan, and Mercer chert from Ohio (1.6%). There was also continued use of quartz (9.5%), quartzite (1.0%), chalcedony (1.3%), and other local till cherts (0.5%). Indeterminate cherts comprised 20.1% of the assemblage.

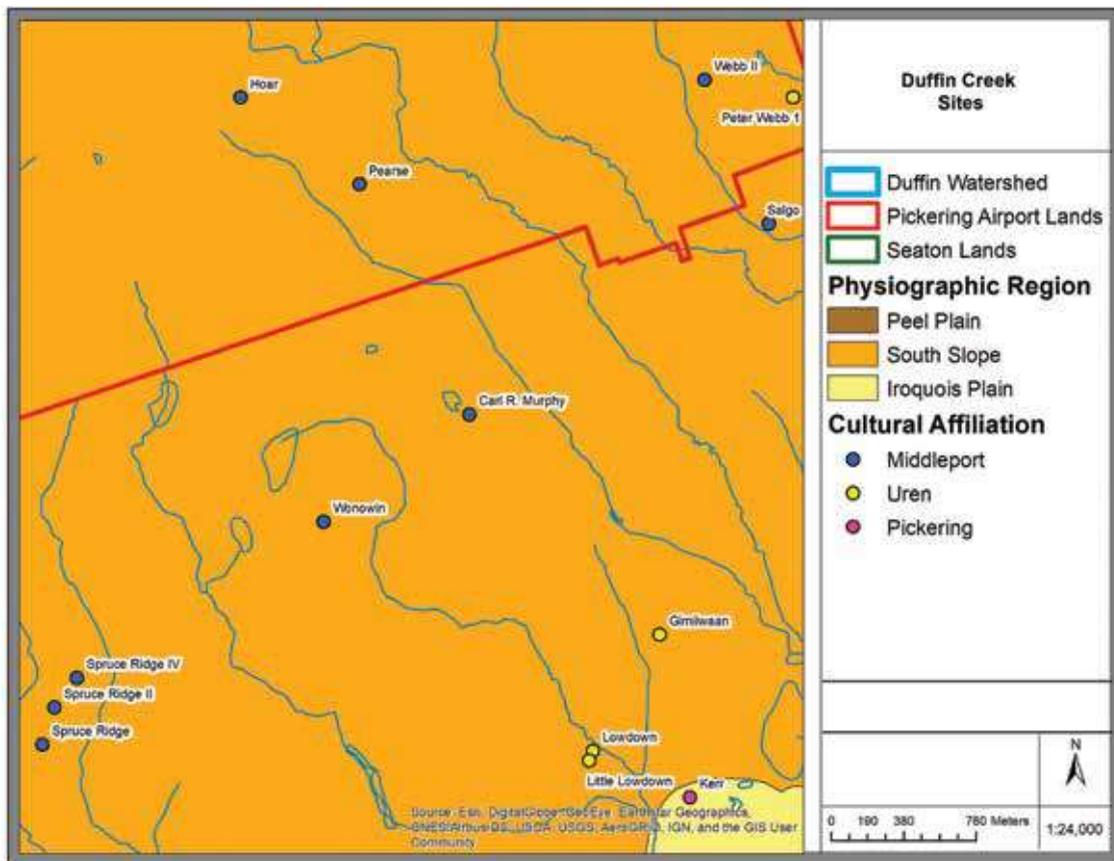
This suggests that the Uren people on Duffin Creek had reduced access to the chert sources on the north shore of Lake Erie either as a result of lack of direct access to the quarries or a decrease in access to these cherts from trade with people to the west. To compensate for this decrease, there is a significant increase in the use of Balsam Lake,

Trent Valley, and local till cherts, a slight increase in the use of quartz, and the first evidence for the use of quartzite. Could this be evidence for increased trade with local Algonquian peoples? There is also a minor use of more exotic cherts from further afield.

Chert source data for each site are presented in Tables H.3 and H.4 in Appendix H.

4.5 Middleport Substage Sites

Figure 4.4: Location of Middleport Substage Sites on Duffin Creek



There are five Middleport substage village sites on the Duffin Creek watershed and four special purpose sites as illustrated in Figure 4.4. Basic descriptive data on these sites is presented in Appendix F.

4.5.1 Observations on the Middleport Substage Occupation of Duffin Creek

The Middleport occupation of Duffin Creek drainage is represented by five villages: Carl L. Murphy, Wonowin, Webb II, Pearse, and Hoar, and three or four special purpose sites: Salgo, Spruce Ridge I, Spruce Ridge II, and probably Spruce Ridge IV.

One village, Webb II, is located on the eastern branch of Duffin Creek and may be a successor to Miindaamiin and its hamlet Peter Webb I. Salgo is important since it is another special purpose site, possibly a seasonally occupied hamlet comprised of a single longhouse, perhaps associated with Webb II.

Four villages—Wonowin, Carl L. Murphy, Pearse, and Hoar—are located on the central branch of Duffin Creek. Sebastien appears to be the Uren predecessor of these sites on this branch of Duffin Creek.

The Spruce Ridge I, II, and IV sites are of interest since they represent the earliest occupation of the western branch of Duffin Creek based on existing data. This suggests the presence of Middleport substage villages on the western branch of the creek which remain to be located. Evidence for such villages includes the presence of pine stands on this branch of the creek where there are no known sites (Figure 2.3).

Along with the presence of only a single Uren village on the eastern branch of Duffin Creek, there appears to be a problem with the origins of these Middleport villages. Perhaps several Uren villages remain to be located, especially in the southeast corner of the Pickering Airport Lands, an area not subject to as much survey as other parts of the Airport Lands.

Since the samples of rim sherds from these sites are small, this prevents any definitive statement about the sequence of occupation of these sites. However, based on our current knowledge, there tends to be a northward movement of villages away from Lake Ontario. This was demonstrated by my research in the Crawford Lake area (Finlayson 1998b) and research by MacDonald (2002). This might suggest a movement from Carl L. Murphy to Pearse to Hoar, with Wonowin being a sister village to Carl L. Murphy.

The Middleport occupation of West Duffin Creek is also interesting because there seems to be a continuity of the occupation of the central and eastern branches of the creek while the Black Creek substage occupation is located on the western branch of the creek. This, however, may also be a function of the fact that parts of the drainage have not been subject to archaeological assessment and perhaps more sites will be found in the future.

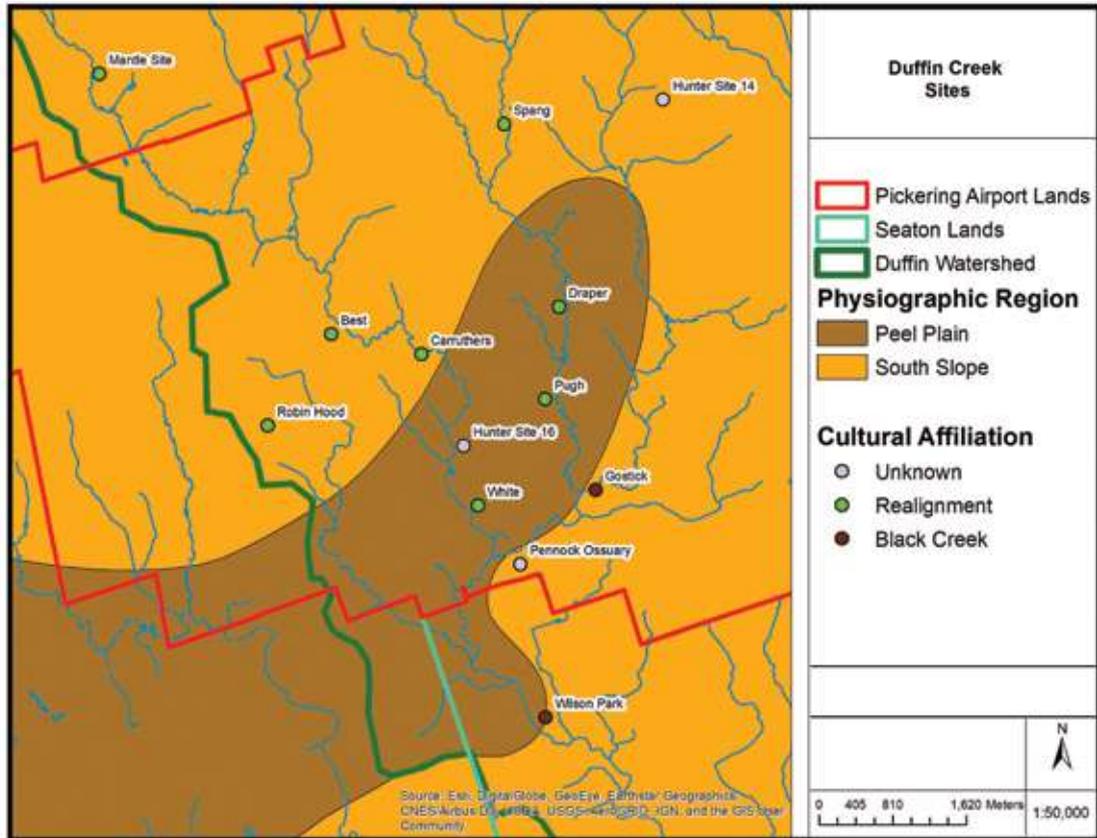
The occupation of Duffin Creek by Middleport people is also different than the occupation by preceding Pickering people and similar to the Uren substage in that we find a special purpose site comprised of a single longhouse at the Salgo site (A.M. Archaeological Associates 1998 Figure 4, as illustrated in ASI 2013 Figure 1). During the Pickering substage, special purpose sites appear to have been of a very transient nature exhibiting no evidence of house structures or other features such as hearth floors. The Salgo site is of interest since it may be, as is the Peter Webb I Uren substage special purpose site, a forerunner of sites such as White, Carruthers, and Robin Hood which are interpreted as seasonally occupied hamlets of the Alignment substage.

During the Middleport occupation there is a further decreased use of Onondaga chert (33.8%) compared to the preceding Uren and Pickering occupations. There must be a reason for this decrease in the use of these high-quality cherts, a topic beyond the scope of this study. There is also the minor use of Lockport (0.6%), Selkirk (0.1%), Bois Blanc (0.4%), and Haldimand (0.4%) cherts as was the case during the Uren occupation, but there is also evidence of minor use of Ancaster (0.3%) chert for the first time. Also, we see the continued use of small amounts of Kettle Point (0.7%), probably representing trade with neighbouring groups further to the west. There is also a significant increase in the use of Balsam Lake (42.2%) and Trent Valley (2.7%) cherts and a slight use of Bobcaygeon (0.1%) chert. Again, I question whether this is obtained from the local till or from trade with people to the north. Local cherts used include chalcedony (0.2%), chalcedony-like material (0.4%), quartz (0.4%), and quartzite (1.0%). There is the first evidence for the use of Collingwood (0.1%) chert and continued use of very small amounts of Mercer (0.0%, 1 piece) cherts from Ohio, Bayport (0.0%, 1 piece), chert from Michigan, and Hudson Bay Lowland (0.1%) cherts, albeit in very low numbers. These cherts were probably also obtained by trade, possibly through intermediaries.

Chert source data for each of the sites are presented in Tables H.5 and H.6 in Appendix H.

4.6 Black Creek Substage Sites

Figure 4.5: Location of Black Creek Substage Sites on Duffin Creek



One of the important questions about the occupation of Duffin Creek during the Late Stage of the Ontario Woodland Tradition is the classification of the known sites.

In his synthesis of “Huron” archaeology almost 30 years ago, Peter Ramsden presented a significant revision to a portion of the Ontario Iroquois Tradition as initially defined by James V. Wright. This involved the replacement of the Southern Division of the Huron-Petun branch with two periods: Black Creek-Lalonde period (A.D. 1400–1500) and a Realignment period (A.D. 1500–1600) (Ramsden 1990, 381, 382).

Characteristics of the Black Creek-Lalonde period “possessed certain distinctive ceramic styles. These styles included a high frequency of complex neck decoration and the occurrence of high collared, particularly Ridley’s Lalonde High Collar, pottery types” (ibid., 381). Ramsden goes on to delineate variation in several regions. For the

Toronto area he notes that neck decoration varies from 33–67%, high collared wares from 5–20% and punctates below the collar 5–20% and interior decoration less than 10% (ibid., 381). He also suggested that the first occupation of Draper may relate to this period (ibid.). For purposes of this study, I classify Draper as a Realignment substage village.

Given the data currently available for Duffin Creek, I believe that Wilson Park is the earliest Black Creek substage village and that a perhaps yet-to-be-located site north of Wilson Park and south of Gostick are also Black Creek substage sites (Figure 4.5).

The Realignment period, as defined by Ramsden, had the following significant characteristics: “the restructuring of traditional tribal groupings, population migrations and the coalescence of small villages into large cosmopolitan ones” (ibid., 382). Ramsden notes the following trends characteristic of this period:

the general decrease in neck decoration, an increase in the popularity of Simple collar motifs at the expense of most others, a decrease in interior and sub-collar punctates, an increase in lip decoration, and an elaboration of castellation styles manifested by an increase in popularity of such types as turret and grooved varieties. Also of note is the appearance of “foreign” ceramics on Huron-Wendat sites, the most prominent among which are distinctive St. Lawrence Iroquoian types, which, along with occasional other St. Lawrence artifacts, undoubtedly reflect an intensification of trade or population exchange, through marriage, alliance or warfare, with the St. Lawrence Iroquoians (Pendergast 1985; P. Ramsden 1977a, 1978, 1988a 1988b). Pipe styles in this period are also more varied than previously, and include, in addition to the earlier trumpet and ring varieties, types such as coronet, mortice, collared ring and several styles of effigies.

Perhaps most diagnostic of the period is a change in settlement pattern. In many parts of south central Ontario there is a trend towards an increase in village size, apparently produced by the coalescence of several small villages, or segments of villages, into large cosmopolitan town of 10 or more acres (Damkjar 1990, Finlayson 1985, P. Ramsden 1978, 1988a, 1988b, Warrick 1984a). ...A concern with defense, or with community integrity is manifest in extensive multi-row palisades and evidence for trauma and mutilation in skeletal remains. The placement of houses in these towns indicates a

degree of community planning, and probably also reflect the establishment of "ethnic" house clusters or barrios, which often appear to be arranged around open areas or plazas (Finlayson 1986, Finlayson et al. 1987, Knight 1987, Warrick 1984).

On the Duffin Creek drainage, the challenge is to assign the known sites to either the Black Creek substage or the Realignment substage. As defined by Ramsden, Draper is, at least in large part, a Realignment period site. However, given the reassessment of Draper in this study, I would argue that Draper in its entirety is a Realignment period site as are Spang and Mantle.

One key question is whether Pugh, located less than one km south of Draper, should also be included in this period. This question is difficult to address due to the very small sample of artifacts from the presumably earlier Gostick site and the lack of significant settlement pattern data from Pugh. However, the presence of collared ring pipes (19.1% of 21 artifacts) (Timmins 1981, 36) and Incipient Turret, Broad Turret, Turret, and Grooved and Notched castellations (51.5% of 35 specimens) (*ibid.*, 31), Lalonde High Collared pottery (2.4%), and other foreign sherds (Dutch Hollow Notched (0.5%), Roebuck Low Collared (2.9%) (Birch et al. 2016, Table 4.1), suggests that Pugh can be assigned to the Realignment substage. The apparent absence of a palisade surrounding the southern part of the site I excavated in 1978 suggests that the settlement pattern at Pugh may not involve palisades surrounding the village, but that there may be houses outside the palisades as was the case at Draper where the palisades may have been on the slope below the tableland on which the village was located as at Keffer (personal observation). The presence of a single very well-defined cluster of sweat bath post moulds in the southern part of a longhouse that was subject to very limited excavation is also suggestive of a village in which sweating was an important function, as at Draper.

Another question is the relationship of the White site, which is interpreted as a hamlet seasonally occupied over a prolonged period. Given the possible contamination of some of the White houses, it would appear that White can be classified as a Realignment period site based on the frequency of neck decoration on collared pots (53.8% for the Lower Area and 56.2% for Upper Area) (Tripp 1978, 107), of Simple decoration on collared vessels (62.3% for the Lower Area and 59.1% for the Upper Area) (Tripp 1978, 104), of the presence of Turret castellations (0.5% for the Lower Area, absent for the Upper Area), and Grooved and Notched castellations (0.4% for the Lower Area, absent for the Upper) (*ibid.*, 143). Thus, it certainly appears that the

White site can, at least in part, be assigned to the Realignment period. This also suggests that the increased complexity in settlement patterns during this period represents the use of seasonally occupied hamlets as part of the settlement system at this time. This was not apparent for the earlier Black Creek substage but hints of which were seen in the preceding Uren and Middleport substages.

Given these observations, for the purposes of this study, Wilson Park and Gostick are considered Black Creek substage sites. Given the spacing between Wilson Park and Gostick and the presence of a stand of white pine with few trees, it is certainly possible that one village may be present between Wilson Park and Gostick (Figure 4.5). Basic descriptive data on these sites is presented in Appendix G.

4.6.1 Observations on the Black Creek Substage Occupation of Duffin Creek

The occupation of Duffin Creek changed significantly during the Black Creek substage. The occupation shifts west to the western branch of Duffin Creek, thus abandoning the occupation of the central and eastern branches which had been occupied since the Miller and Boys sites. The shift also results in the occupation north of both the Peel Plain and the South Slope physiographic regions.

Current evidence suggests at least two villages, Wilson Park and Gostick, can be assigned to the Black Creek substage as defined by Ramsden (1990) and adopted here. Spacing of these villages suggests the possibility of one intervening village between Wilson Park and Gostick which is certainly possible given the reduced survey coverage of the Airport Lands south of Gostick. However, given existing data on the generally northward movement of sites away from Lake Ontario as detailed by myself, Finlayson (1998) and Macdonald (2002), a sequence of occupations of Wilson Park to a yet to be discovered site to Gostick is a reasonable working hypothesis which can only be tested by additional field survey and test excavation. It is also possible that there are earlier villages located south of Wilson Park given the documented presence of pine stands south of Wilson Park (Figure 2.3).

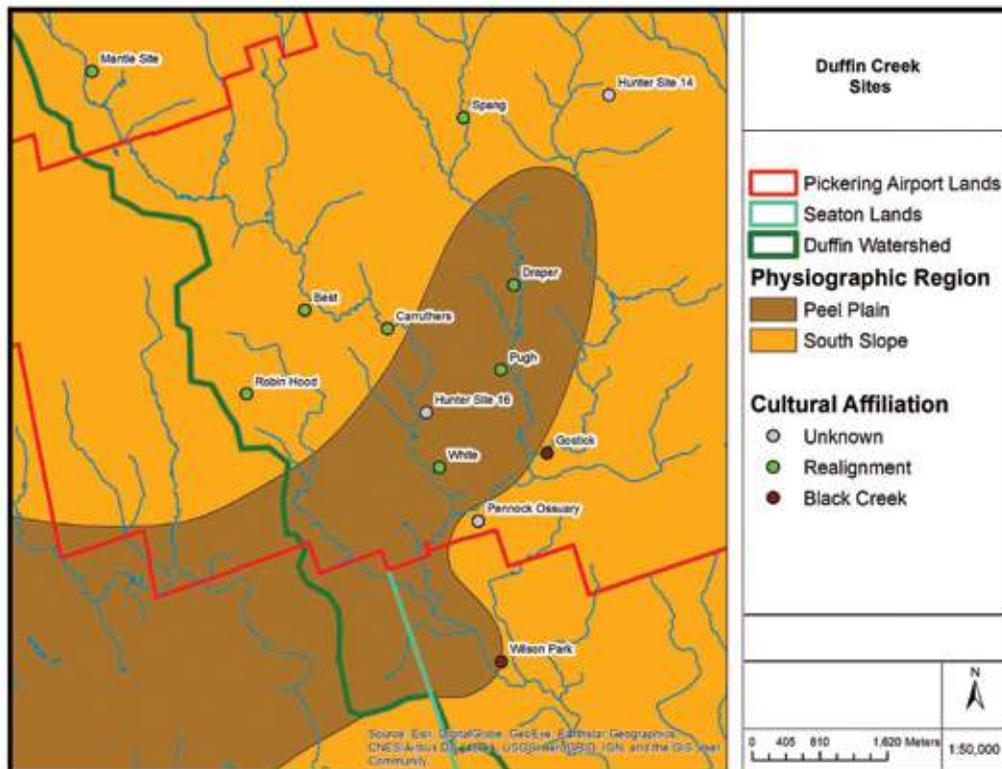
It is noted that Wilson Park is estimated to be 2.4 ha in size, larger than the later Gostick site (1.2 ha) (DRPA 2006, 117). It is further noted that Wilson Park produced an extremely large sample of artifacts from surface collections (3,806 artifacts) with evidence of four major concentrations of artifacts suggestive of middens (*ibid.*, Figure 5) while the surface collection of Gostick produced only 232 artifacts (Poulton 1978). One wonders if there is a difference in the length of occupation of these sites and whether Wilson Park split into two separate villages, one of which relocated to Gostick, the other elsewhere.

One of the other significant changes during the Black Creek substage was in the kinds of cherts used. For the three villages, almost all chert is Onondaga (89.3%) with minor occurrences of Bois Blanc (0.3%), Kettle Point (0.3%), and Hudson's Bay Lowland (0.1%) cherts, local till cherts (0.4%), and quartz (0.2%), Balsam Lake (0.2%), and Huronian (0.6%). Absent are Trent Valley, Collingwood, Mercer, and Bayport cherts which were present in varying quantities in the preceding Uren and in particular, Middleport substages. Clearly this represents access to cherts from the north shore of Lake Erie in quantities larger than present on the earlier Pickering substage sites where it was a majority. Is it possible that this is indicative of an early version of the alliance which existed in the 17th century between the Black Creek substage Iroquoians in south-central Ontario and the Iroquoians in southwestern Ontario which provided, among other things, safety in transit for the former crossing territory of the latter? Or does this represent increased trade between these two groups.

Chert source data are presented in Table H.7 in Appendix H.

4.7 Realignment Substage Sites

Figure 4.6: Location of Realignment Substage Sites on Duffin Creek



As was indicated in the section on Black Creek substage villages (see pages 212–216) the challenge was to refine Ramsden’s characteristics of both the Black Creek and Realignment substages to allow the classification of the sites on Duffin Creek as belonging to either Black Creek or Realignment substage. The criteria used will not be repeated here.

For purposes of this study, five sites—Pugh, Draper, Best, Spang, and Mantle—are interpreted as Realignment substage villages and three sites—White, Robin Hood, and Carruthers—are considered Realignment substage hamlets occupied on a seasonal basis (Figure 4.6).

Unlike previous sections of this chapter, the descriptive data on the Realignment substage villages are presented in the text. This is done since these are very important sites, many of which have large samples obtained from more extensive excavations than the earlier sites. Further, the sites provide essential information necessary to the understanding of the Frontier Coalescent construct provided as a major aspect of this study. Chert source data are presented in Tables H.8 and H.9 in Appendix H.

4.7.1 Realignment Substage Villages

4.7.1.1 PUGH REALIGNMENT SUBSTAGE VILLAGE (ALGT-87)

Pugh is located 1.2 km north of Gostick on the west bank of the west branch of Duffin Creek. The site was located by the 1976–1978 airport survey. Initial estimates of site size based on a surface collection suggested it was 2.6 to 3.0 ha (6.5 to 7.5 acres) in size (Timmins 1981, 2). My georeferencing of the site map suggests that a maximum size might be 1.7 ha and a more likely size is 0.9 ha.

Poulton’s initial assessment of the site recovered 10 rim sherds, four fragmentary rim sherds, one castellation, 116 other fragments of pottery vessels, nine pipe fragments, three projectile points (all pre-Iroquoian), 72 other chipped lithics, 17 ground and rough stone artifacts, and four bone artifacts.

Test excavations were initiated at the site as part of the 1978 archaeological survey of the New Toronto International Airport (Poulton and Finlayson 1978; Poulton 1978a, 1978b). In 1978 Poulton excavated 86 1 x 1 m squares primarily in two middens. A University of Toronto Field School at the site taught by me in 1978 resulted in the excavation of an additional 36 1 x 1 m squares in middens and 27 2 x 2 m squares in a trench along the southern edge of the site to look for palisades. No evidence of a palisade was found. The excavation of four metres of one end of a house structure was found with a very distinct circular cluster of 73 sweat bath post moulds.

Peter Timmins produced a report on all artifacts from Pugh including those from the initial assessment. Included were 382 rim sherds, 117 castellations, 145 pipe fragments, 61 juvenile vessels, four projectile points (one Archaic), four scrapers, 154 other chert artifacts, eight celts, 12 hammerstones, two manos, one hammer-anvil, two metate fragments, four abraders, one stone bead, one stone pendant, 16 miscellaneous ground and rough artifacts, 31 bone artifacts including five modified deer phalanges, 13 bone beads, and three antler projectile points (Timmins 1981).

The analysis of the 311 rim sherds indicated that 26.4% of the necks were undecorated (Timmins 1981, 20). This suggests that Pugh was earlier than Draper where the overall sample from the 1975 excavations had 52.8% decorated necks. This earlier placement of Pugh is also supported by its location further south on Duffin Creek.

The presence of five Lalonde High Collared rim sherds (2.4% of the assemblage analyzed by Wojtowicz and Pradzzynski (Birch et al. 2016, 121, Table 4.1) is considered significant as is the presence of Turret and a single Grooved and Notched castellation and the presence of a single well-defined circle of sweat bath post moulds.

Additional testing involving the excavation of trenches at intervals in a north-south direction across the site would be needed to confirm the nature and extent of the Pugh site and the presence of palisades. Only when this is completed will we have a better understanding of the internal composition of the Pugh site and its relationship to Draper which is located just 0.8 km north of Pugh.

4.7.1.2 SPANG REALIGNMENT SUBSTAGE VILLAGE (ALGT-66)

The Spang site is located 2.1 km north of Draper. It was discovered by the 1976–1978 survey of the New Toronto International Airport (Finlayson and Poulton 1978a, b; Poulton 1978a, 1978b). The controlled surface survey of the site suggested a site area of 3.2–3.6 ha (8–9 acres).

Artifacts recovered by the NTIA survey included 47 rim sherds, three castellations, 364 other fragments of pottery vessels, four juvenile vessel fragments, and three pieces of ceramic pipes. Poulton notes the low frequency of pipe fragments and suggests it is the result of work on the site by a local collector.

Only 16 chert items were recovered including one projectile point or drill. Ground and rough stone items included a fragment of a limestone pipe, 13 celts and fragments, four hammerstones and fragments thereof, an abradar, and a fragment of a bone netting needle (Poulton 1978).

Test excavations were undertaken in 1978 and 1979 with students from Villages de Hurons, Lorette, Quebec. Archaeological field direction was provided by Claude Pinarde in 1978 and Bob Mayer of the Museum of Indian Archeology in 1979. Indigenous students were managed by Regent Sioui in 1978 and Conrad Sioui in 1979. In 1978, a test trench 3 m wide and 40 m long was excavated by hand in one m squares to search for settlement patterns. This trench was expanded up to 10 m to the west to explore the presence of longhouses. Excavations were begun in one midden to the west of this trench. In 1979 the trench was widened to 5 m and excavated a further 50 m to the north. Additional excavations were undertaken in the midden excavated in 1978 and a second midden was excavated as well. The data from Spang was used for a M.A. thesis (Carter 1981).

These excavations discovered the partial remains of five longhouses and five rows of palisades, although the convergence of these rows suggests the possibility of the presence of an entrance to the village in this location. I note that my map of excavations at Spang represents a more accurate placement of the excavations since the test trench completed in a north-south direction across the site ended at the top of the break in slope not at its bottom as indicated in the map used by Carter (1979). Also of note, is the absence of the really well-defined clusters of post moulds indicative of temporary sweat lodges seen in the central corridors of the houses at Draper. This suggests that the very well-defined concept of use of space allocated for the construction and use of sweat lodges in the Draper houses, an observation made by Tyyska (1969, 1972), was not as well-defined in those found in Spang houses. Could this represent a decreased emphasis in the use of sweating to integrate the male occupants of the Spang Site occupied about 30 or more years after the creation of the original Coalescent Village at Draper? Given the extremely small number of sweat lodges found at Mantle, this matter needs further consideration.

The excavations produced a total of 1,095 rim sherds, 86 castellations, 64 pipe fragments, 60 chipped stone items including one possible Middle Woodland side-notched knife, 43 ground and rough stone artifacts, and 95 bone artifacts (*ibid.*, 28, 29).

Of the rim sherds, 96.1% were collared (*ibid.*, 48). Collar height varied from 10–52 mm (average 17.0 mm) (*ibid.*, 50) indicating the presence of high collared vessels which were not discussed separately. Collar decoration involved motifs on 68.2% of the rim sherds (*ibid.*, 55) and 50.0% of the necks were undecorated (*ibid.*, 56). These data suggest that Spang was occupied after Draper.

Other artifact frequencies of interest were the presence of 25 modified deer phalanges, all of which were recovered from middens (Carter 1981, 28) and 37 bone beads, 31 of which were recovered from middens.

At Spang, all identified cherts were Onondaga (87.5%) (Appendix H.9).

Recently, work was conducted by Jennifer Birch at the Spang site. This involved the use of “magnetic gradiometry, magnetic susceptibility and soil phosphate analysis to help infer the settlement structure of the Spang site” (Birch 2016, 102). The results of this work can only be confirmed with significant excavations at the site and until such excavations are undertaken to substantiate the results of this study, systematic test trenching of such Ontario Woodland Tradition sites such as was done at Draper as previously described, is the only way to provide conclusive results about the presence and location of settlement features such as longhouses and palisades and sweat baths.

In a recent paper, Birch and her co-authors present a reanalysis of the Spang site rim sherds using a typological approach which indicates the presence of no Lalonde High Collared rim sherds.

Birch and colleagues have also run a series of C14 dates which significantly alter estimates of the date of occupation of the site. These are discussed below (Manning et al. 2018).

4.7.1.3 BEST REALIGNMENT SUBSTAGE VILLAGE (ALGT-67)

The Best site is located 2.5 km west of Draper and was also discovered by the NTIA surveys. Two surface collections suggested a site four to five acres (1.6 to 2.0 ha) in extent (Poulton 1979). Minor test excavations involving four 1 x 1 squares and one 0.75 x 0.75 m square were undertaken in one midden (Poulton 1978).

Artifacts recovered included 71 rim sherds of which three were high collared (Birch et al. 2016a, Table 4.1), 10 castellations, 560 other pieces of ceramic vessels, 17 juvenile vessel fragments, eight pieces of ceramic waste from the manufacture of pottery vessels, and 42 pipe fragments. Chipped stone artifacts included a knife, 16 scrapers, 35 wedges, 39 utilized flakes, a biface fragment, five biface trimming flakes, five core fragments, and 98 pieces of chipping detritus. Data on decoration of necks on analyzable rim sherds revealed 72.7% were undecorated while data on all available necks (including those on fragmentary rim sherd, neck sherds, and neck-shoulder sherds) revealed 66.8% were undecorated (Poulton 1978). This suggests that Best may be a village that, along with Spang, was occupied after Draper.

The recent consideration of the rim sherds from Wilson Park, Pugh, Best, Draper, Spang, Mantle, and Aurora sites (Birch et al. 2016, Table 4.1) suggest a placement of the Best site earlier than Draper. I prefer to see it as the site with Spang which followed Draper although this remains a matter for further consideration once there has been a complete reanalysis of the Draper site collection. I note that the Draper rim sherd data is an amalgamation of typological analyses from earlier excavations used by Birch et al. (ibid.). They used this data without noting they are taken from a handwritten report by Pihl (1984, Table 1) submitted to me at the Museum of Indian Archeology and that Pihl's table combines typological data from James V. Wright (1966), Ramsden (1968, 1973), and Arthurs (1979).

Poulton notes that 94% of the chert is Onondaga. One piece of Collingwood chert, one piece of Balsam Lake chert, and 10 others described primarily as indeterminate by colour are present.

4.7.1.4 THE MANTLE REALIGNMENT SUBSTAGE VILLAGE (ALGT-334)

The Mantle site is the only other Ontario Woodland Tradition stage village on Duffin Creek to be subject to almost total excavation. This has resulted in a wide variety of publications. Accordingly, more information will be presented in this section about this work. My goal is not to undertake a detailed review of these publications but to focus on the Draper-Spang-Mantle sequence of relocations as a coalescent community. Further there have been three book reviews, two by Peter Ramsden (2013, 2014) and one by Alicia Hawkins (2015) and comments by Jeff Bursey (2018) which contribute to our understanding of the site and some of the problems with its presentation. As a result, there is no need for a reconsideration here at this time.

4.7.1.4.1. LOCATION

The Mantle site is currently the northern-most known and latest Ontario Woodland Tradition village on the West Duffin Creek. It is located 4.5 km northwest of Spang and 5.7 km northwest of Draper.

4.7.1.4.2 EXCAVATION

Mantle was investigated by Archaeological Services Inc. between 2003 and 2005.

4.7.1.4.3 SOURCES

There are three major sources of data about Mantle and its position and significance in the occupation of the Duffin Creek drainage and beyond:

1. A Ph.D. dissertation by Jennifer Birch (2010a) which develops the concept of Coalescent Villages using the Draper and Mantle sites on West Duffin Creek;
2. Detailed licence reports on the Stage 2/3 investigations and the Stage 4 salvage excavations which are on file with Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (ASI 2012a); and
3. A major publication by Birch and Williamson (2015) entitled *The Mantle Site: An Archaeological History of an Ancestral Wendat Community*.

In addition, there are a number of articles in journals and other sources (e.g., Birch 2008a, b, 2010b, 2012, 2015a, b, 2016, 2018; Birch and Williamson 2013b, 2015). For purposes of this study, the focus will be on Birch's Ph.D. thesis, the licence reports on the Mantle site excavations and the book on Mantle by Birch and Williamson. It is not my intent to review and critique the myriad of articles by Birch and Williamson. There are several reasons for this including the fact many of the articles contain insufficient research and/or present incorrect data. For example:

- In a number of articles Birch attributes the origins of Coalescent Villages to the "ancestral Wendat" on Duffin Creek. She does not reference my study of the Iroquoian occupation of the Crawford Lake area where there is clear evidence of Coalescent Villages during the Pickering, Middleport, and historic Neutral substages;
- Comments are made about the presence of slate beads/pendants at Draper attributed to Bill Fox (2004) yet Birch (2016, 126) is apparently unaware of the fact that I defined the presence of a Neutral longhouse (#45) in my 1985 publication on the Draper settlement pattern data (see also pages 183, 184);
- Site sizes vary. Mantle is said to be 4.2 ha in size yet the licence report clearly defines it as 2.9 ha in extent. Similarly, Draper is said to be 4.2 ha in extent (e.g., Birch et al. 2016, 122), but the Draper Main Village is actually 3.42 ha in extent;
- Information is presented which is taken without any citation or from questionable sources. For example, Birch et al. (2016, 122) cites a report by R. Pihl (1984) indicating it as the report on the complete Draper rim sherds yet fails to note that this is a handwritten report submitted to me as director of investigations at Draper and rejected as having numerous problems (see page 221);

- Data are also presented without adequate description of where they were obtained. Birch et al. (2016) data are presented on 2,384 typed rim sherds from the Draper site. What is not stated is that these data are taken from the Pihl (1984) handwritten report, and represent a composite typological analysis of four different collections from the site by three different analysts (James V. Wright 1966, Ramsden 1968, 1973, and Arthurs 1979). Who knows what the differences in typological analysis of the different archaeologists were, but combining the data as Pihl has done may be misleading? Also, the use of types ignores the problems of typological analysis and the arguments for attribute analysis by a number of authors (e.g., James V. Wright 1980); and
- As a further example of this, rim sherd data on the Wilson Park site are cited as being from ASI 2012 [sic] are actually from D.R. Poulton and Associates (2006). Work by ASI (2015b) represents the final report on the 2011 investigations which was accepted by the Ministry of Heritage, Sport, Tourism and Culture Industries, but these data are not incorporated into the results of the work by Poulton.

I will note, however, it is increasingly the case in research during this second decade of the 21st century, that the emphasis in archaeology has changed significantly. In the past, the goal of archaeology was to describe, analyze, and interpret data recovered through excavation. It is now apparent that the goal, at least for some, has changed to pursue problems of broader anthropological interest using selected archaeological data which is frequently obtained by a superficial examination of available literature, often using only that which is available online or in secondary sources. Such studies tend to use a variety of new statistics and mapping programs which provide support for the problems being pursued whether appropriate or not. This does not bode well for the future of archaeology in the province or beyond.

4.7.1.4.4 EXTENT OF EXCAVATION AND SIZE OF THE MANTLE SITE

According to the Stage 4 licence report on the site “approximately 4.5 hectares were Exposed” (ASI 2012, 11). My georeferencing of the site map suggests that the area of the Stage 4 excavation was 3.6 ha.

The stated size of the Mantle site has varied depending on which author(s) and reports or publications are referenced. In a conference presentation Birch states that “the village covers 9 acres” (2008b, 5) or 3.6 ha, while in her Ph.D. dissertation states that “The total area of the site covers 4.2 ha” (2010, 109). In her 2010 publication,

Birch again states that Mantle is 4.2 ha in extent (Table 1, page 39). In her 2012 publication in *American Antiquity*, Birch presents Mantle as being “the largest Iroquoian village excavated to date in the Lower Great Lakes region” (2012, 648) and again uses 4.2 ha as the site size (ibid., Table 1, page 653). This site size is also used in the Wikipedia article (as of May 3, 2020).

In contrast to these varying estimates in site size, the licence report in the section of the report authored by Andrew Clish and Jennifer Birch and accepted with the Ministry of Heritage, Sport, Tourism and Culture Industries clearly states that “the Mantle site enclosed an area approximately 236 m (north-south) by 140 m (east-west), covering a maximum of 29,100 square m (2.9 hectares) during the early phase of occupation” at which the site is at its greatest size (A.S.I. 2012, 19). This correct site size of 2.9 ha is also used in Birch and Williamson’s book on Mantle (2015, 63).

As we will see, the use of an incorrect size of the Mantle site negatively affects a variety of interpretations made about population movements from Draper to Spang to Mantle.

4.7.1.4.5 PHASES OF OCCUPATION

It has been suggested that the occupation of Mantle began with the construction of two houses (#13 and 26) which may have served to house those who came to clear the site area and begin construction of the village (Birch and Williamson 2015, 69).

Mantle was also unusual in the changes to its palisades and, accordingly, the size of the village. It is reported that the original palisades encompassed 2.9 ha (A.S.I. 2012, 19; Birch and Williamson 2015, 71) or 2.8 ha (ASI 2012, 98) and were comprised of one to three or perhaps four rows of posts. In a first rebuilding and village contraction, two rows of palisades were added inside the original three rows along the northern and southern extents while along the eastern side of the village two new rows of palisades were added about 10 m inside the original one to three rows in this area. There was another major rebuilding of the palisades with three rows of new palisade posts erected up to about 17 m inside the second stage palisades along the northern and northeastern sides of the village. Along the central portion of the eastern rows of the second phase of palisades, three additional rows of posts were added just inside the two rows from the second phase palisades. In the southeastern corner, the third phase palisades were moved inward for up to about 10 m. Along most sections of this third stage of palisades, there was a borrow ditch which provided soil to construct earthworks at the base of the third phase palisades (A.S.I. 2012; 96–102).

A total of 96 longhouses were discovered at Mantle with all but 14 being overlapped by one or more houses or being extensively rebuilt and in three cases being overlapped by the third set of palisades. These house patterns have been interpreted as an early phase and a late phase. In the early phase the houses are placed in a radial pattern extended outward, often in double rows, from a plaza in the east-central part of the early village. In the late phase, village houses were placed in a much more random fashion with significant rebuilding of many longhouses.

4.7.1.4.6 VILLAGE PLAN

The Stage 4 licence report on the Mantle site contains excellent colour plans of the longhouses, palisades including phasing, entrances, activity areas, middens, and population estimates. The plans of the longhouses, etc., provide the basic descriptive data required for other researchers to conduct their own investigations of the Mantle site settlement patterns. This provides the opportunity to counter some of the interpretations made in the various reports and publications and/or to make observations about the site not recognized or discussed by the authors.

For example, one report focuses on the presence of a hillside midden (#1) and the trench midden created by dumping refuse in the borrow pit which provided soil for an inferred earthwork. This is then used to infer that “specific energies were directed at managing refuse disposal practices, channeling waste out of the village and into, first, Midden 1 (and any other now-destroyed hillside middens) and later, the trench surrounding the palisade” (ASI 2012, 119). The report further notes “the social and political implications of these decision-making processes were discussed in greater detail by Birch” (2010, 136–137).

However, the licence report describes 15 refuse-filled depressions scattered around the village which were defined as middens and were mapped as “small middens” in the site plan (A.S.I. 2012, 14). These were subsequently redefined as depressions filled with refuse associated within activity areas. While such a reinterpretation supports Birch’s social and political assertions, the original interpretation of these as middens and the fact that more than 18,000 artifacts were collected from the surface of the site (Birch and Williamson 2015, 64), provides further evidence that there were middens in various places within the village at the time of occupation. This negates the authors’ arguments regarding their assertion that the designated use of certain areas for discarding refuse indicated control of refuse disposal by the occupants of the site.

4.7.1.4.7 DATING OF MANTLE, SPANG, AND DRAPER

Birch initially accepted a date of “1450–1500 Finlayson (1985)” for Draper and notes that five C14 dates “averaged A.D. 1430+/- 34 (based on MacDonald 2002, 297)” (2010, 199, Appendix A). In her 2012 article, Birch refines her estimated dates for the occupation of Draper from 1450–1500 to 1450–1475 based on recalibration of C14 dates and dates Mantle 1500–1530 (2012, 657–8).

A similar dating is presented in the 2012 ASI licence report. Carbon dates on maize suggest occupations between A.D. 1462 and 1642 (Beta-217158) and A.D. 1446 and 1530 or 1539–1635 (Beta-217159). They note the problem of multiple intercepts but still use these dates to support an occupation “around the turn of the sixteenth century” (2015, 321).

The recently published study of 84 C14 dates from three sequentially occupied Coalescent Villages (Draper-Spang-Mantle) on West Duffin Creek in southern Ontario, by Sturt Manning and 10 other co-authors present new evidence which indicates that Mantle was partially contemporaneous with Warminster, the latter of which is often interpreted as the historic Huron-Wendat village visited by Samuel de Champlain in 1615. This study included a C14 date from a preserved post from the Warminster site which was also subject to dendrochronological analysis.

The study concludes that the Draper-Spang-Mantle sequentially occupied villages date ~1530–1615 (68.2% hdp ranges) (*ibid.*, 5) with Draper dating 1525–1555, Spang dating 1513–1593, and Mantle dating 1596–1618. This suggests that Mantle is contemporaneous with Warminster (1585–1624) (*ibid.*, 3).

The authors note that:

The revised dates from the Draper, Spang and Mantle sequence already suggest substantial changes in the previous understanding of the pace and timing of indigenous social, economic and political changes in North America, such as the processes of coalescence and conflict, substantially shortening the previously assumed time frame and moving these transformations later into the contact-era period in the 16th century (*ibid.*, 2018:6).

They also note that this “raises fundamental questions about the role of European contact in transforming or influencing fluctuations in indigenous economic and sociopolitical networks during the 16th century” (*ibid.*).

It is unfortunate that this paper further promulgates the notion that Mantle is the “largest, most complex, completely excavated Iroquoian site in southern Ontario” (Manning et al. 2018, 3). Draper is the larger site and, like Mantle, was almost

completely excavated. The complexity of Draper is different than Mantle and one which can be subject to a vast myriad of research questions due to the huge samples of artifacts recovered from undisturbed parts of the site.

4.7.1.4.8 VILLAGE POPULATIONS

The licence report uses a formula devised by Casselberry (1974) to produce a “momentary population of the Mantle village as 1,339 persons” (ASI 2012, 123). No data are provided to support this assertion, making it impossible to assess.

Birch, in her Ph.D. dissertation, provides population estimates based on the roofed area of houses using the Draper site and the total area of roofed space in the village. From these estimates, Birch suggests that the early phase population of Mantle was 1,510 individuals and the late phase was 1,111 individuals (*ibid.*, 126). Once again, no data are presented to support this assertion. Birch concedes that “it is entirely possible that the village lost a portion of its population, and possibly as many as 400 individuals... [or that] there was a greater degree of settlement ‘packing’” (*ibid.*, 126). Clearly, there may be a nearby village or satellite village which was created by the “as many as 400 individuals” (*ibid.*) who may have decamped Mantle. This suggests that more survey in the environs of Mantle is required.

In the book on Mantle, a population estimate for Mantle of 1,523 is used (2015, 99). These differing estimates for the population of Mantle need clarification.

4.7.1.4.9 CERAMICS

Detailed descriptions of the rim sherds, using both types and attributes, provides interested researchers with comparative data which can, to a limited extent, be used in other comparative studies.

Perhaps most disturbing about the ceramic analysis in the 2012 licence report (ASI 2012, Table 53) is that it contains data on the intra-site distribution of attributes from the Draper site taken from tables in the handwritten report submitted to me as director of investigations of Draper by R. Pihl (1984), the latter of which was never published for a number of reasons.

4.7.1.4.10 CHIPPED STONE TOOLS

Of particular note was the recovery of three pre-Iroquoian projectile points (ASI 2012a, 216).

4.7.1.4.11 FAUNAL ANALYSES

Chapter 6 of the licence report presents a detailed analysis of the faunal remains including bone artifacts. Of interest was that white-tailed deer bones and bones most

likely deer comprised 61% of the mammal bone assemblage. Deer and dog are interpreted as the most important food sources but it is noted that:

there seems to be an emphasis on the mass capture of fall-spawning fish that are amenable to storage, namely lake trout, whitefish, Atlantic salmon and eel. Another focus is on suckers, which are most readily caught during their spawning run in the spring but can be caught at other times (Needs-Howarth 2012, 294).

In the book *The Mantle Site: An Archaeological History of an Ancestral Wendat Community*, the authors provide detailed investigation of the numbers of deer and the deer habitat required to produce the amount of deer hides needed by the occupants of the Mantle site on an annual basis. While this is an interesting speculative exercise, it seems excessive especially since the historic Huron-Wendat in their homeland (in what is now Simcoe County), with an estimated population of 30,000 had access to the vast numbers of deer hides they required, in part, through trade with neighbouring Algonquians who wintered in or near their villages.

4.7.1.4.12 PLANT REMAINS

In Chapter 5 of the book on Mantle, the authors discuss the *Necessities of Life*. The authors summarize the results of the collection of plant remains from the Mantle site. They note that maize is most important followed by small quantities of bean, squash, sunflower, and tobacco (ibid., 88). Yet strangely, there are no comparisons with the Draper site, where large quantities of plant remains were recovered by the massive use of a flotation technique. Also lacking in this discussion is a consideration of the large quantities of fruit seeds found at Robin Hood, originally interpreted as a summer cabin site (Williamson 1983) and discussed by Moncton in the ASI licence report. Yet, this published information on the seasonal occupation of Robin Hood is ignored, since this site and others need to be villages in order to provide the number of individuals required to populate the Draper site from sites only on Duffin Creek. More on this below.

4.7.1.4.13 CHERTS UTILIZED

At Mantle, 97.7% of the chert was Onondaga with very small amounts of Bois Blanc (.03%), Kettle Point (0.7%), Balsam Lake (0.1%), chalcedony (0.2%), and other (0.6%) (ASI 2012, 797).

4.7.2 Realignment Substage Special Purpose Sites

Three sites are considered seasonally occupied hamlets—White, Carruthers, and Robin Hood. The White site is classified as a Realignment substage site based on the presence of high collared rim sherds in numbers slightly less than Draper and the presence of small numbers of Turret and Grooved and Notched castellations. Given the location of Carruthers and Robin Hood north of White, these are also classified as Realignment substage sites.

4.7.2.1 WHITE REALIGNMENT SUBSTAGE SPECIAL PURPOSE SITE (ALGT-32)

This site was subject to preliminary investigation by the 1972 archaeological survey by Victor Konrad of the Department of Geography, York University (Tripp 1978, 6), and subsequent test excavations as part of the Ontario Archaeological Society contract with the Archaeological Survey of Canada, National Museum of Man for work at Draper and White. This work was directed by Patsy Cook and involved the excavation of 32 2 x 2 m squares at the site (Cook 1974) (*ibid.*).

The almost complete excavation of the White site was undertaken by Grant A. Tripp between 1974 and 1976 (Figure 4.7) As overall director of investigations of archaeological studies at the NTIA between 1976 and 1979, I oversaw the 1976 excavations and the subsequent analysis and report preparation.

Tripp prepared a very thorough descriptive report on the White site artifacts at a time when detailed comparative data was not available from the 1975 and 1978 work at Draper or from the sites investigated by the NTIA surveys. Thus, he was limited to making comparisons with existing data from sites outside the airport and internal comparisons between the houses on the upper and lower terraces.

In this section, I will provide a very brief overview of Tripp's report which is on file at the Canadian Museum of History and may be accessed there.

Tripp's excavations revealed the presence of seven longhouses in the Lower Area and four houses in the Upper Area. One house in the Upper Area was separated from the other three by a single row of post moulds indicating the presence of a wall of posts. One of the most important results of Tripp's work was the documentation of house structures, many of which exhibit very significant differences from the house structures discovered at the Draper site. To illustrate this point, Tripp included two plans of each house, one showing all features and the other showing house walls and hearth floors. As shown in (Figure 4.8), the differences include very large densities of wall post moulds and clusters of small hearth floors in the central corridors rather than single large hearth floors documented in the Draper houses.

Figure 4.7: Plan of the White Site (from Tripp 1978)

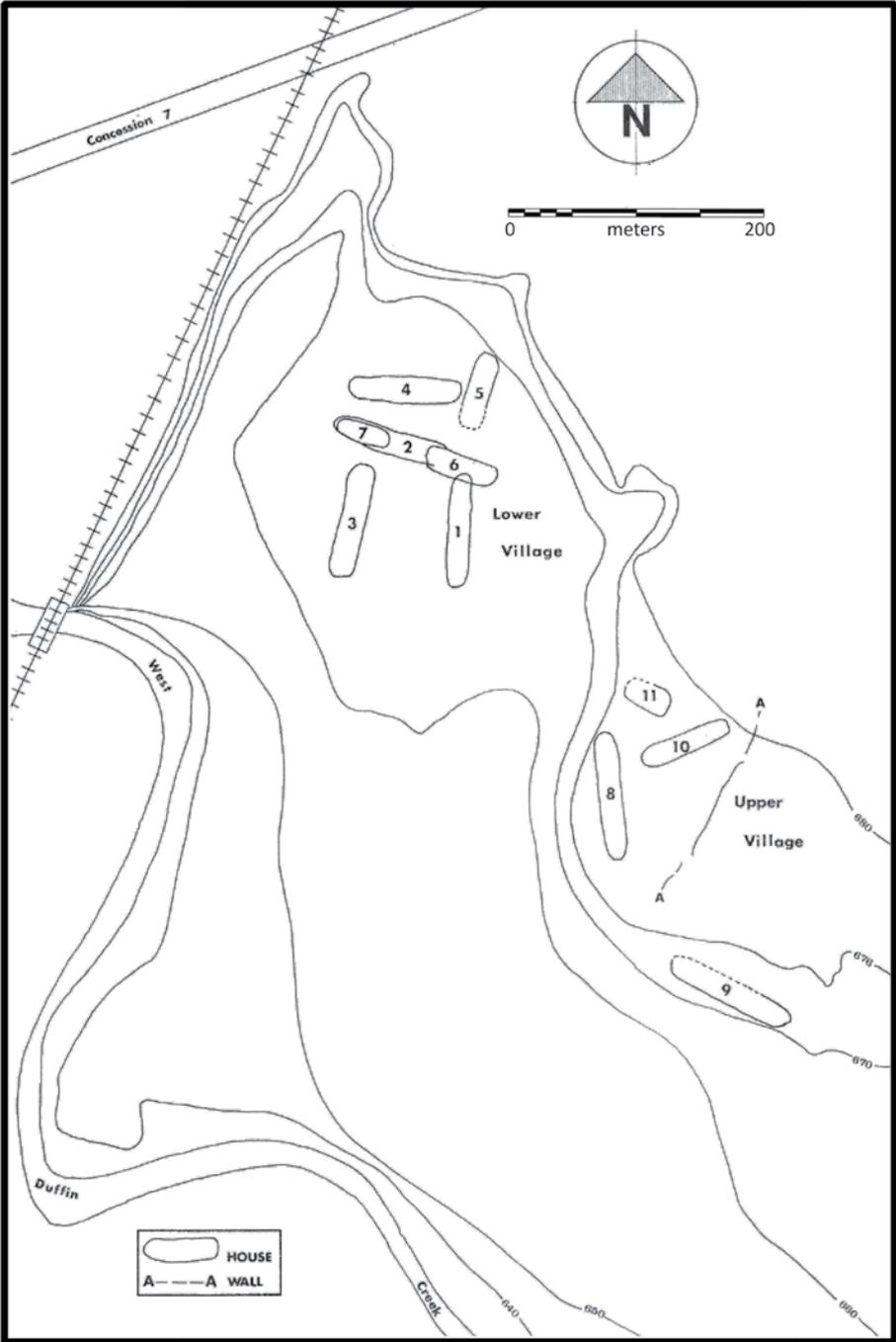
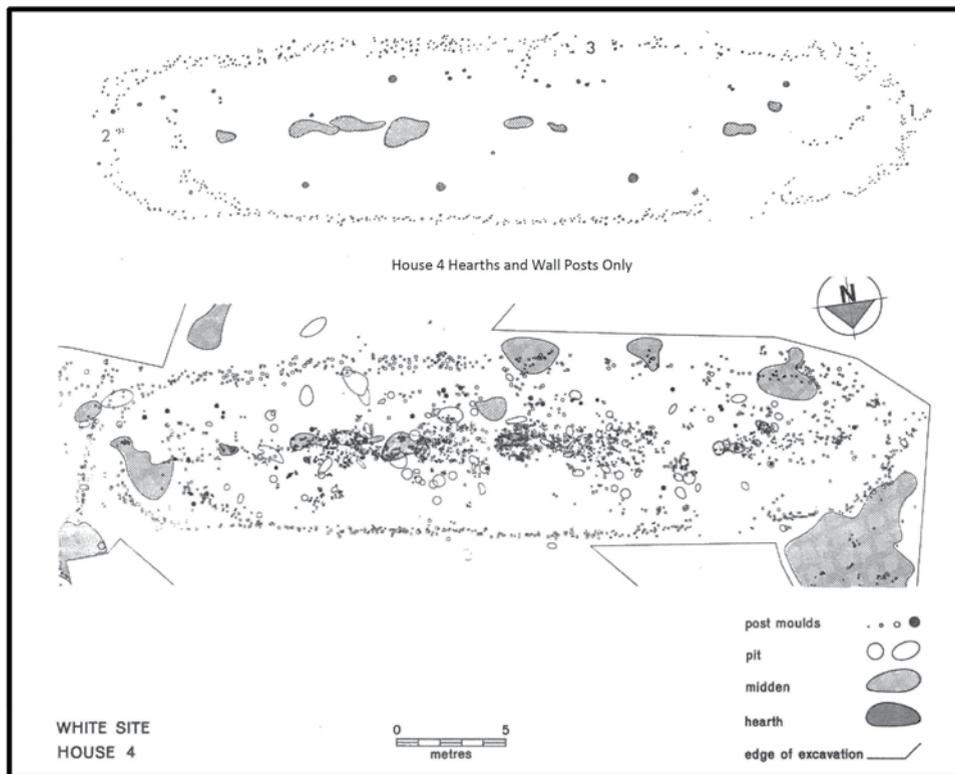


Figure 4.8: Two Plans of House 4 from the White Site (from Tripp 1978, 39, 42)



A very large sample of artifacts was recovered including 1,684 analyzable rim sherds, 150 castellations, 302 pipe fragments including 114 which could be typed according to established Iroquoian pipe types, 451 chipped lithic artifacts including seven side notched and three triangular projectile points, 43 scrapers, seven blades, four drills, 39 utilized flakes, and 347 pieces of chipping detritus; 80 ground and rough stone artifacts including 47 celts, three pendants, and one ground stone circular disc bead of limestone, stone pipe blank, 13 abraders, eight hammerstones, three metates, two anvil stones and two abraders, and 158 bone, antler, and shell artifacts including 42 modified deer phalanges, three awls, seven netting needles, two modified moose phalanges, 48 beads and 12 pieces of bead wastage, six modified beaver incisors, and nine miscellaneous pieces. Antler artifacts included one harpoon and two flaking tools, while one shell scraper and shell pendant were recovered (Tripp 1978, 83–150).

Another valuable aspect of Tripp's report is that he presents data on the collar and neck motifs of the analyzable rim sherds (Tables 4.3 and 4.4). This provides some preliminary insight into the chronological placement of the houses and upper and lower terraces and suggests, at least in part, contemporaneity with Draper.

Table 4.3. Frequency of Collar Design Motifs for Houses and Areas at the White Site (from Tripp 1977, 104)

| House | 1 | 2/7 | 3 | 4 | 5 | 8 | 9 | Lower Area | Upper Area | Both Areas |
|--------------|----------|------------|----------|----------|----------|----------|----------|-------------------|-------------------|-------------------|
| | % | % | % | % | % | % | % | % | % | % |
| Motifs: | 637* | 126* | 110* | 292* | 79* | 121* | 107* | 1426* | 242* | 1684* |
| Simple | 64.2 | 58.7 | 63.6 | 62.0 | 64.6 | 57.0 | 58.9 | 62.3 | 59.1 | 61.9 |
| Crossed | 10.2 | 9.5 | 6.3 | 5.1 | 10.1 | 2.5 | 10.3 | 8.4 | 4.9 | 7.7 |
| Notched | 5.5 | 6.4 | 7.2 | 6.9 | 13.9 | 13.3 | 6.3 | 6.7 | 9.4 | 7.0 |
| Horizontal | 3.0 | 2.4 | 2.7 | 2.4 | - | 2.5 | - | 2.7 | 1.2 | 2.5 |
| Opposed | 5.2 | 4.8 | 7.2 | 8.6 | 2.5 | 7.4 | 11.2 | 6.4 | 8.3 | 7.3 |
| Complex | 0.9 | 1.6 | 1.8 | 2.4 | 2.6 | 1.7 | 0.9 | 1.5 | 1.2 | 1.4 |
| Plain | 4.1 | 5.6 | 2.7 | 5.5 | - | 0.8 | 3.7 | 4.1 | 2.5 | 3.7 |
| Other | 6.9 | 11.1 | 8.2 | 7.2 | 6.3 | 14.9 | 10.3 | 7.9 | 12.4 | 8.4 |
| Total | 100.0 | 100.1 | 99.7 | 100.1 | 100.0 | 100.1 | 101.6 | 100.0 | 99.0 | 99.9 |

* = Total Frequency

Table 4.4. Frequency of Neck Design Motifs for Houses and Areas at the White Site (from Tripp 1976, 107)

| House | 1 | 2/7 | 3 | 4 | 5 | 8 | 9 | Lower Area | Upper Area | Both Areas |
|------------------------|----------|------------|----------|----------|----------|----------|----------|-------------------|-------------------|-------------------|
| | % | % | % | % | % | % | % | % | % | % |
| Motifs: | 637* | 126* | 110* | 292* | 79* | 121* | 107* | 1426* | 242* | 1684* |
| None | 35.2 | 40.5 | 32.7 | 43.5 | 38.0 | 25.6 | 39.3 | 37.4 | 31.0 | 36.3 |
| Horizontal | 20.5 | 17.5 | 20.0 | 15.1 | 16.5 | 15.7 | 17.7 | 17.8 | 17.0 | 17.5 |
| Horizontal/? | 0.8 | 0.8 | - | 0.7 | 2.6 | 1.7 | 0.9 | 0.8 | 1.2 | 0.9 |
| Oblique | 18.6 | 12.7 | 20.0 | 19.9 | 17.8 | 21.5 | 11.2 | 18.8 | 17.3 | 18.6 |
| Opposed | 11.5 | 12.7 | 11.8 | 11.0 | 12.7 | 16.5 | 14.9 | 12.5 | 16.1 | 13.1 |
| Horizontal/ Oblique | 3.0 | 2.4 | 4.5 | 1.3 | 5.1 | 4.1 | 1.9 | 3.0 | 2.9 | 2.9 |
| Horizontal/ Opposed | 0.7 | 0.8 | 0.9 | 1.0 | 1.3 | 0.8 | 2.8 | 0.9 | 1.7 | 1.0 |
| Indeterminate | 10.0 | 12.7 | 10.0 | 7.5 | 6.3 | 14.0 | 11.2 | 9.1 | 12.8 | 9.9 |
| Total | 100.3 | 100.1 | 99.9 | 100.0 | 100.3 | 99.9 | 99.9 | 100.3 | 100.0 | 100.2 |

*Total Frequency

Tripp also presents data on collar height. From this it was possible to extract preliminary data on the presence of high collared vessels at White. The Upper and Lower Area deposits each produced 4.3% high collared pottery vessels.

Tripp completed several analyses to understand the occupation of the Upper and Lower Areas and their relationship to the Draper site. His comparison of the various houses using Ramsden's (1977) chronologically sensitive attributes provides varying orders of the houses from earliest to latest but does clearly indicate that the Upper Area is earlier than the Lower Area. He also correctly notes that the attributes defined by Ramsden do not necessarily apply to Draper and White and other sites on Duffin Creek.

Preparation of Measures of Distance for White compared to the sites used by Ramsden in his study of 28 Huron-Wendat sites; the White site compares, as would be expected, most closely to Draper with a Measure of Distance of 122.1 (Tripp 1978, 171).

Clearly, a major problem with the attribute analysis process used for Draper, White, and Spang almost 40 years ago is that it does not separate out foreign sherds as well as Lalonde High Collared and other high collared vessels.

Tripp's report also contains a section on three burials and fragments of human bone with 15 separate catalogue entries. Feature 30 was an adult burial inside House 6, Feature 4 was a child burial within House 4, and Feature 23 was a bundle burial comprised of five individuals: one sub-adult and four adults. Details on these burials and their pathologies are contained in Appendix 1 by Shelley Saunders.

Of most importance is that Tripp proposes that White is a farm hamlet based on the following:

1. Unusual site location;
2. Absence of defensive planning;
3. Absence of village planning;
4. Absence of planning in house construction;
5. Length of occupation;
6. Low pit density within houses;
7. Absence of storage pits within houses;
8. Variable hearth location;
9. Presence of corn fields; and
10. Floral and faunal analysis (Tripp 1978, 266).

As noted elsewhere, Poulton supports the interpretation of White as a hamlet and attributes a similar function to Robin Hood and Carruthers.

The White site report and interpretation of the data recovered was prepared in 1977 after the completion of the excavations in 1976. As noted elsewhere, Tripp did not have access to the results of the completion of excavations at Draper and the subsequent final analyses of most of the data recovered. Accordingly, there are aspects of the analysis of the White site which need be reconsidered. One of these would be a reanalysis of the rim sherds, separating out the foreign sherds which could be assigned to St. Lawrence Iroquois and New York State Iroquois, to explore the numbers and significance of these sherds.

At the same time, there should be a detailed analysis of the distribution of the rim sherds and other artifacts within each house. The purpose would be to search for possible contamination of house deposits by the super position of houses on previously formed middens, the creation of middens on previously occupied houses, or a very prolonged occupation of certain houses. The need to undertake such a study is raised by the very large number of rim sherds (637) recovered from House 1 (e.g., *ibid.*, 104) which was 38.0 m long and 7.2 m wide. With an approximate area of 274 sq m, this indicates the recovery of 2.3 rim sherds per sq m of house. When compared to House 12 at the Draper site which was 53.6 m long and 7.9 m wide with an approximate area of 423 sq m and produced 502 rim sherds (Smith 1989, 30), this gives a recovery rate of 1.2 rim sherds per sq m. This suggests either a very prolonged occupation of House 1 at White or a contamination of the living floor deposits as suggested above.

Most of the chert from the White site is Onondaga (93.7%), quartz (4.3%), Bobcaygeon chert (0.2%), quartzite (0.7%), and indeterminate (1.1%). Thus, White is like other Black Creek and Realignment sites in the predominant use of Onondaga chert.

4.7.2.2 ROBIN HOOD SITE REALIGNMENT SUBSTAGE SITE (ALGT-96)

This site was discovered by the NTIA archaeological survey. Artifact distributions determined two loci of occupation. A small collection of artifacts was surface collected including four rim sherds, 41 other fragments of pottery vessels, five pipe fragments, 47 chipped lithics including two Archaic projectile points and eight ground and rough stone tools (Poulton 1979).

Poulton suggested that based on two loci of occupation and the indefensible location of the site, tentatively interprets Robin Hood “as a hamlet used as a base for tending agricultural fields and occupied over a number of summers by the inhabitants of a single village” (Poulton 1979, 311). Poulton goes on to state:

Further support for the above interpretation lies in the location of the Robin Hood site at the centre of the former location of a pine stand which is believed to represent an abandoned cornfield. This pine stand appears to be related to the Best site..., a Late Iroquoian village which is situated 1.1 kilometers north-east of Robin Hood. Best is the nearest village to Hood (sic), and their apparent mutual association with this pine stand strongly suggests that the two sites are related (1979, 312).

Ron Williamson returned to the Robin Hood Site and undertook Stage 4 excavations for his M.A. degree. These excavations revealed four longhouses in the Eastern Locus, three of which were partially excavated and the other had its walls trenched. Three trenches in the Western Locus did not reveal any house structures. The house structures in the Eastern Locus were like those on the Draper site but lacked hearth floors. Two circular sweat baths in House 3 are somewhat similar to those at Draper. These houses are distinctly different than most of those at the White site suggesting a shorter length of occupation.

Ceramics recovered included 18 rim sherds, 37 other fragments of pottery vessels (excluding 995 grams of fragmentary sherds), 31 miscellaneous ceramic objects, nine pipe fragments, 116 chipped lithics including two pre-Iroquoian projectile points recovered by Poulton during the discovery of the site, 20 ground and rough stone artifacts including 16 celts, two hammer-manos and two abraders, and 10 bone artifacts including three modified beaver incisors, one modified deer phalanx, one perforated antler, one bone bead, three miscellaneous modified bone pieces, and one shell artifact (Williamson 1983, 44–54). Williamson concluded that Robin Hood is a seasonally occupied rural cabin site related to the tending of corn fields (1983, 57).

Most of the chert from the Robin Hood site is Onondaga (87.9%) with a small amount of quartz (8.6%) and other materials (3.4%) (Williamson 1979). Thus, Robin Hood is like the White site in this respect.

More recently, Birch and Williamson arbitrarily reclassify the Robin Hood site as an Ontario Woodland Tradition village. This stems from their preconceived notion that drainage basins on the north shore of Lake Ontario were occupied by a single community of Late Iroquoian peoples. Accordingly, White, Carruthers, and Robin Hood need to be villages, not seasonally occupied hamlets, to provide the numbers of individual residents within Duffin Creek drainage necessary to account for the population of Draper site. As we shall see below, there is a viable alternate hypothesis for the creation of the Draper site.

4.7.2.3 CARRUTHERS REALIGNMENT SUBSTAGE SPECIAL PURPOSE SITE (ALGT-97)

This site was discovered by the archaeological survey of the New Toronto International Airport Lands. It is estimated to be 0.6–0.8 ha (1.5 to 2 acres) in size with the presence of three plough-disturbed middens indicated by concentrations of artifacts found during a controlled surface survey. Poulton noted:

Carruthers may be a small village, but it is presently considered more likely to be a hamlet. The basis for this interpretation rests in the small size of the site and its location in the heart of what was once a large pine stand or pre-historic cornfield. The nearest Iroquoian sites are the Best site (one kilometer to the northwest) and the White site (1.75 km to the southeast) and the Draper site (0.8 km to the east(sic)). Best and White are located on the same creek which flows past Carruthers. It has been suggested that White itself was a hamlet (Tripp 1978). If this were true White would have to be eliminated from the list of villages to which Carruthers as a possible hamlet, could be related. This would leave Draper and Best as possible parent sites. The Best site is closer and therefore, more probable, but the assumption of a relationship between Carruthers and Best would involve the acceptance of the possibility that Best could have had two hamlets as the Robin Hood site has already been considered as hamlet associated with the occupation of Best. Obviously, the matter cannot be resolved with the present data (1979).

The investigations produced a small sample of artifacts including four rim sherds, three castellations, 35 other pieces of ceramic vessels, two biface fragments, two scrapers, five utilized flakes, three wedges, and 11 pieces of chipping detritus. Ground and rough stone artifacts included three celt fragments and one whetstone. Of note were the presence of two Archaic projectile points. The small sample of chert collected by Poulton revealed most was Onondaga (87.2%), quartz (4.3%), and other (8.5%). Chert use was similar to that at White and Robin Hood.

4.7.3 Observations on the Realignment Substage Occupation of Duffin Creek

The Realignment substage sites on the Duffin Creek reflect three major changes in the Ontario Woodland Tradition occupation of the drainage. The most significant change in this substage is the development of Coalescent Villages, a term coined by Brian Hayden for Draper, used by Ramsden to describe Draper, and used as the defining characteristic of the Draper-Spang-Mantle sequence of villages by Birch and Williamson.

The Coalescent Village concept has been reviewed above for Mantle and developed and enhanced by Birch and Williamson. It will be further discussed below in the context of Frontier Coalescent Villages as applied to the Draper to Spang to Mantle sequence but also applied to other Iroquoian villages including Kraus and Centre Track, thus making Frontier Coalescent Villages one of the defining characteristics of the Pickering substage of Ontario Woodland Tradition sites on the north shore of Lake Ontario.

Another of the significant changes in the settlement pattern during the Black Creek and subsequent Realignment substage is the presence of the substantial special purpose sites—seasonally occupied hamlets—White, Carruthers, and Robin Hood. As noted elsewhere, White is particularly interesting given its prolonged occupation as evidenced by houses with massive numbers of wall post moulds, multiple small hearth clusters in the central corridors of most longhouses rather than larger hearth floors typical of Draper, and very substantial numbers of artifacts from some of the houses, indicative perhaps, of the dumping of refuse on previously occupied houses. As was the case with most of the special purpose sites occupied during the Early and Middle stages, these sites are located to the west of the villages suggesting a frontier to the east. Given the location of the lower component of the White site, it is certainly possible that more such sites exist in similar locations which were not subject to assessment during the Airport Lands surveys. The reported location of Hunter Site 14 may also represent another hamlet, something which can, again, only be investigated by further field work.

One of the very interesting results of the archaeological survey of the Pickering Airport Lands and the excavation was the recovery of pre-Iroquoian projectile points or knives from Draper (12), Spang (1) knife, Mantle (3), and Robin Hood (2). The relatively large number of pre-Iroquoian projectile points and other artifacts recovered from Black Creek and Realignment sites on the Duffin Creek raises the questions around whether this practice occurred in other communities of precontact Iroquoians who occupied the central north shore of Lake Ontario at these times. Clearly this is an aspect of the Late Iroquoian occupation of south-central Ontario that needs further research.

Finally, it is noted that there was a very significant change in chert sources utilized during the Realignment substage with virtually all chert being Onondaga chert (97.5%). Other cherts used were Bois Blanc (0.2%), Collingwood (0.1%), Balsam Lake (0.1%), Trent Valley (0.1%), chalcedony (.1%), chalcedony-like (0.1%), quartz (0.4%), Kettle Point (0.7%), and indeterminate (0.6%) (Table 4.2).

4.8 Ossuaries

Three ossuaries have been recorded in the vicinity of the Black Creek and Realignment substage sites within the Pickering Airport Lands—Pennock Ossuary, Draper Ossuary, and Hunter Site 16. Only the Pennock Ossuary has been subject to investigation.

4.8.1 Pennock Ossuary (AlGt-55)

The Pennock Ossuary was first documented by Konrad and Ross (1974, 51) based on a report from a local resident and was also reported to Poulton's survey crew. It is located about one km southeast of the White site. A visit to the site in 1976 documented human bone fragments over an area of approximately 100 sq m. In 1977 a total of 332 bone fragments were recovered from an area about 20 m in diameter (Poulton 1979).

4.8.2 Hunter Site 16

Andrew Hunter's Archaeological Sites of Ontario County, records an ossuary about 7.5 km north of the White site. Hunter notes that "it was eight or ten feet in diam. and contained hundreds of skeletons" (Hunter n.d.). Hunter provides the name of the landowner at the time the ossuary was found which should facilitate its relocation.

4.8.3 Whitton Ossuary

Information on this ossuary, associated with the Draper site, has been compiled by Dana Poulton as detailed above (see page 61).

With the exception of the Whitton Ossuary, it is uncertain how the Pennock and Hunter Site 16 ossuaries relate to the known village sites.

4.8.4 Garland Ossuary

This ossuary is located 5.3 km south of Wilson Park. As noted (page 195), its location is an anomaly which can only be resolved by more research.

4.9 *Duffin Creek—An Ontario Woodland Tradition Special Purpose Site (AlGs-380)*

Discovered by Andrew Murray Archaeological Assessments in 2009, the site produced five pieces of pottery and 12 chert artifacts from 14 test pits and was interpreted as a Pickering site based on the presence of one small dentate stamped sherd and another with ribbed paddling on the surface of a body sherd (AMAA 2011, 8,17).

Stage 3 test excavations were undertaken by ASI which involved the excavation of 32 1 x 1 m squares and the excavation of eight test trenches 5 m wide (ASI 2016, 5). Artifacts recovered included 55 lithic artifacts of Onondaga chert and two fragmentary sherds (ibid., 8, 9). The site was classified as a Late Woodland site (ibid., 10).

Stage 4 excavations involved the excavation of 121 1 x 1 m units and the stripping of the site area with a gradall (ASI 2017a, 6). The excavations produced 15 pieces of ceramic vessels including two classified as Huron Incised indicating a Black Creek or Realignment substage occupation, six biface fragments, two projectile point fragments, and 1,171 pieces of chipping detritus. Chert types of artifacts were Onondaga (97.0%), Lockport (2.5%), chalcedony (0.4%), and quartzite (0.1%) (Table H.10 in Appendix H).

It was “concluded that the Duffins Creek site represents a small Late Woodland site likely occupied during the Late Iroquoian period (1400-1650 A.D.)” (ibid., 14).

Given the location of this site in proximity to Lake Ontario compared to the Black Creek substage and Realignment substage villages and hamlets on the western branch of Duffin Creek which are located about 12 km north of the shore of Lake Ontario, along with the unusual nature of the artifact assemblage comprised of relatively large quantities of chert flakes, a few chert artifacts, and a few pieces of pottery vessels, it is suggested that this may represent an Algonquian special purpose site, perhaps an inland winter camp. This cultural affiliation is speculative and might be further investigated by more detailed study of the few pieces of ceramic vessels recovered. It is clear, however, that this site does not fit within the criteria used in this study to qualify as a Black Creek or Realignment substage site.

4.10 Chapter Summary

This chapter has summarized the Ontario Woodland Tradition occupation of the Duffin Creek drainage as it is currently known, primarily from unpublished reports from cultural resource management projects, although earlier publications on Miller (Kenyon 1968) and Boys (Reid 1975) provide substantive data.

This occupation may be summarized as follows:

1. On the east branch of Duffin Creek there are one, possibly two Pickering villages, three special purpose sites, one Uren village and one special purpose site, and one Middleport village;

2. On the central branch of the Creek there are four known Pickering villages, 15 special purpose sites, one Uren village and two special purpose sites, four Middleport villages and four special purpose sites; and
3. On the western branch of Duffin Creek there are two Black Creek villages and four Realignment substage villages and three special purpose sites. There are also two villages documented by Andrew Hunter and two ossuaries, one known and one documented by Hunter.

It is clear from this review that for the eastern and central branches of the Creek, a number of sites must have been destroyed or have yet to be located.

Given the importance of the Mantle site and its role in the initial definition and subsequent elaboration of the concept of Coalescent Villages, there is a more detailed discussion of some of the aspects of this site in the following chapter.

Chapter 5

Frontier Coalescent Villages on West Duffin Creek

While much has been written about Mantle and Draper as Coalescent Villages, there are several aspects of these villages and their assemblages of artifacts which have been overlooked or not considered adequately and therefore merit investigation. As previously indicated, there have been three book reviews of Mantle (Hawkins 2015 and Ramsden 2013 and 2014) and one comment (Burse 2018) which provide varying insights into this site to which the interested reader is referred.

5.1 Limitations of the Data

I begin with a review of the limitations of the data. There are two aspects to this matter. First, as mentioned briefly, the archaeological surveys of the Duffin Creek drainage have been relatively extensive compared to other watersheds on the central north shore of Lake Ontario. This is primarily a result of the survey of the lands expropriated for the construction of a second airport for the City of Toronto and the expropriation of the Seaton Lands south of the Pickering Airport Lands to create a new planned city. Additional areas have been assessed for a variety of proposed developments such as housing subdivisions and highways. Yet I would estimate that less than 30% of the watershed has been subject to archaeological survey, with virtually no lands being surveyed on a research basis. As a result, we do not know how many sites might remain to be located.

Further, it is important to remember that the location of one of the components of the White site (Lower Village, Figure 4.7) is on an intermediate terrace of the tributary of the Duffin Creek. Since areas such as these are not subject to assessment because they are not to be developed, we have no inkling of how many more such sites might exist in areas like the White site Lower Village.

Our consideration of the sites is also significantly limited by the fact that only the Miller, Draper, White, Robin Hood, and Mantle sites have been subject to major or almost total excavation. Most others are only known from limited test excavations (e.g., Spang, Pugh, Best, Boys) and the remainder from the collection of artifacts from

the surface of the sites which were being farmed or from test excavations where the focus was not to obtain analyzable samples of artifacts and data. The limited data are best for Spang but less so for the others test excavated due to the archaeological surveys of the Pickering Airport or Seaton Lands. Thus, we cannot fully understand the nature and extent and time or duration of occupation of most of these sites. For example, one estimate for the Pugh site suggest that it is 2.6 to 3.0 ha in size (Timmins 1981, 2). However, as I suggested previously (see page 217), it is also possible that Pugh is much smaller (0.9 h) with an outlying cabin such as occurred at Draper or other settlement features not typical of regular villages.

Also of importance are the interpretations by Birch and Williamson that eight sites contributed to Draper. In these interpretations, Birch and Williamson dismiss the well documented existence of a variety of settlement types for the historic Huron-Wendat and for earlier Ontario Woodland Tradition sites. These included villages, satellite villages, seasonally occupied hamlets and cabins, as well as fishing camps and deer yards, among others. They also missed the significance of the recognition of these settlement types as an important step in the development of Ontario archaeology as detailed by Trigger (e.g., 1985). One of the noteworthy advances in studies of Ontario Woodland Tradition archaeology in southern Ontario since the 1970s was moving beyond Chronological Archaeology with its focus on cultural affiliation and dating of sites and the widespread incorporation of Spatial Archaeology with its emphasis on different site types associated with settlement systems (Trigger 1985). This was indeed a major step forward in our understanding of Ontario Woodland Tradition peoples and their occupation of the land.

The interpretations of the Robin Hood site by Birch and Williamson also overlooks the previous explanation by Williamson that the Robin Hood site was a seasonally occupied cabin site situated in the agricultural fields at some distance from the village where the occupants lived during the winter months. In the discussion of the White site, there is little doubt that White was most likely a seasonally occupied hamlet that was inhabited over many decades as this different settlement type is clearly demonstrated by the large number of entrances to many of the houses and the very high densities of wall post moulds. Further, I have noted that Dent Brown is located on a tributary of the Rouge River. Its inclusion as a site contributing to Draper simply because it was found during the same surveys as the other Iroquoian sites located during the Pickering Airport surveys is simply not justified without significant comparisons of the ceramic collection to sites on both the Rouge and Duffin drainages.

The above limitations of existing data could be overcome by large-scale research surveys of the Duffin Creek drainage. While such surveys could be conducted on federal and provincial lands, the extension of such surveys to private properties, which constitute the largest portion of lands on the drainage would be more difficult. As I have noted elsewhere (Finlayson 2018), the discovery of an Iroquoian village on someone's private property raises a whole series of ethical questions. First and foremost, the discovery of such a site would negatively impact the value of the landowner's property. This is a direct result of the very significant costs of digging such a site prior to the development of the land. Such costs would be deducted from the purchase price of the property by proponents who are increasingly searching for such sites as part of their due diligence before purchasing a property. Such costs are a direct result of the extremely detailed excavation, description and analysis and reporting requirements of the 2011 Standards and Guidelines of the Ministry of Heritage, Sport, Tourism and Culture Industries, but also the increasing demands of First Nations to be involved in such excavations. Such engagement costs are increasing and may well soon, exceed the cost of doing the archaeology. The alternative of preserving the site also has significant costs including the lost profits from not being able to develop the lands on which the site is located as well as lost profits from the houses which could not be built and the perpetual loss of tax dollars not available to municipalities. As I have stated elsewhere (*ibid.*), I will no longer undertake archaeological surveys on lands in private ownership. The net result in the long run is the inability to investigate the history of the occupation of Duffin Creek and all adjacent areas of south-central Ontario by Ontario Woodland Tradition peoples. This also severely limits the research problems which can be subject to investigation through archaeological field studies even if significant funds were available.

5.2 On Ontario Woodland Tradition Frontiers on the North Shore of Lake Ontario and Environs

Another important aspect of the Ontario Woodland Tradition occupation of Duffin Creek is that it was a frontier at least two different times during the Ontario Woodland Tradition. However, the nature of the frontier was different. In the case of the Miller site, it appears that these early Iroquoians settled in Algonquian territory with a subsequent settling on the Bronte Creek about 80 km to the west. In this instance, the settlements were in territories which were isolated but in which there were no

apparent significant conflicts with the original occupants of the area. In the case of the Draper-Spang-Mantle occupations, it is clear that the creation of the coalescent Draper village was a response to hostilities with populations to the east and that this was the cause for coalescence. Exactly what the nature is of occupation of drainage systems immediately to the east remains poorly known, yet it is the St. Lawrence Iroquoian and League Iroquoian populations much further to the east which appear to have prompted the frontier settlements of Draper-Spang-Mantle. Much more research is needed of the lands between the Duffin Creek and the lands of the St. Lawrence Iroquoians to the east to better understand this frontier.

It is proposed that the Miller site is the earliest Pickering occupation of what is now the Greater Toronto Area and current evidence suggests that those people who occupied it arrived from further east in south-central Ontario (James V. Wright 2004). There are three aspects of the Miller site that are crucial to this placement in time and space. First, as Wright has argued, Miller dates to about A.D. 800 based on the ceramics recovered from the site. He also notes that the existing carbon date is too late to properly date the site. I would suggest that a later date of about A.D. 1000 may not be unreasonable. This will require more radiocarbon dates to be processed in order to resolve this matter. Second, Miller has several large storage pits which suggests a transition to a society whose subsistence is becoming increasingly based on agriculture but still relies on storage of foodstuffs in large pits which are absent from later sites on the drainage. Finally, as I have noted, Miller was probably occupied for at least one century if not substantially more. This being the case, Miller served as a site on the frontiers of lands which had been, and continued to be, occupied by Algonquian speakers. With the growth in population associated with food production, the Pickering people moved northward on Duffin Creek. However, in the first century of the second millennium A.D., there was a new Pickering frontier established on the Bronte Creek which ultimately led to the occupation of 16 sequentially occupied Pickering, Uren, and Middleport sites in the Crawford Lake locality below and on top of the Niagara Escarpment (Finlayson 1998b).

It is unclear the extent to which the occupation of the Duffin Creek may have been a frontier to lands to the east during the Middle Ontario Woodland stage. The large size sites such as Sebastien, Miindaamiin, Pearse, and Hoar suggests that these may be frontier sites, but more data on their size and internal nature of houses and presence or absence of palisades is necessary before this can be anything more than speculation worthy of further research.

It is clear however, that beginning with the Pugh, Draper, Spang, and Mantle site sequence and perhaps even earlier with the Wilson Park site, sites on the Duffin Creek represent an eastern frontier for sites in what is now the Greater Toronto Area. As such, the frontier location becomes one of the key factors in the creation of these later (and perhaps earlier Coalescent Villages) on the Duffin Creek.

It is likely that Parsons, a Coalescent Village on the Humber River, was a frontier village in relation to the contemporaneous Ontario Woodland Tradition occupations to the west, where, for example, the Irving-Johnston site may well represent a contemporaneous Neutral village on the eastern frontier of the Neutral occupation of this area.

As noted for the Crawford Lake area, the Early Pickering substage Kraus and Centre Track sites, each 1.9 ha in extent and dating to A.D. 1120 to 1150 and A.D. 1150 to 1180 respectively (Finlayson 1998b, 372) represent the western-most frontier of the Pickering substage with the Glen Meyer Algonquians (James V. Wright 2004). In addition, the late Middleport Acheson site appears to represent a Coalescent Village on the newly formed frontier to sites on the Humber River while the coalescent historic Irving-Johnston village may have served a similar function.

From this consideration of Coalescent Villages on the north shore of Lake Ontario, I propose that a concept of Frontier Coalescent Villages be used for those very large sites such as Draper, Spang, Mantle, Parsons, Kraus, Centre Track, Acheson, and Irving-Johnston sites, and that sites such as Keffer, a Ontario Woodland Tradition satellite/hamlet which evolved to become a full-fledged village, be considered under a different rubric. As such, Frontier Coalescent Villages can be defined as villages which were established on, or came to be on, the boundary with another cultural group which resulted in subsequent significant increase in the village population, this being due to the addition of other villages or segments of villages in order to provide greater protection of the original occupants and perhaps greater numbers of warriors to pursue warfare with those groups. It is clear that Frontier Coalescent Villages were a characteristic of the Iroquoian occupation of south-central Ontario as early as the middle of the 12th century A.D. in the Crawford Lake area (Finlayson 1998b, 372).

With the aforementioned review of the data from the Draper site, Mantle, and other nearby sites mostly on West Duffin Creek, attention will now be turned to the concept of coalescent communities originally developed by Birch (2008, 2010) and subsequently subject to refinement and elaboration in a series of papers, some co-authored with Williamson. It is essential to reiterate that the Mantle site is an

extremely important site and that the concept of coalescent communities applied by Birch to Mantle, Spang, and Draper represents a vital contribution to our understanding of these Realignment substage Ontario Woodland Tradition sites despite some of the problems with Mantle previously presented. Yet there are also issues with the coalescent concept as presented by Birch and sometime co-author Williamson.

5.3 Coalescent Communities—The Original Concept

Coalescent as a descriptor for the Draper site was first used by Brian Hayden in his publication on the 1973 salvage excavations at Draper. After discussing the implications of the coalescence of villages in planning his 1973 excavations, Hayden states “that the Draper community represents the coalescence of several independent villages” (1979, 8,9).

In his summary article on the Huron-Wendat occupation of south-central Ontario, Peter Ramsden states in his discussion of the Realignment period which he dates to A.D. 1500–1600: “its major characteristic: the re-structuring of traditional tribal groupings, population migrations and the coalescence of small villages into large, cosmopolitan ones (1990, 382).

The concept of Coalescent Villages in south-central Ontario, which ignored the above cited work by Hayden and Ramsden, constituted Birch’s Ph.D. dissertation (2010). One of the concerns with Birch’s original formulation in her Ph.D. dissertation is that it deals only with Draper and it was suggested that all the occupants of Draper moved to Mantle with no recognition of the intervening Spang site, clearly an intervening village probably occupied by some of the Draper population before moving on to Mantle. A major difficulty with this approach is that it ignores the fact that there was a period of 25 or more years between the occupation of Draper and Mantle in which there were undoubtedly changes in the way of life for Iroquoian occupants of Draper before they moved to Mantle. This matter was resolved in later publications where Spang is incorporated into the discussions.

In reviewing the Mantle site, it must be remembered that Mantle was not the original Coalescent Village on West Duffin Creek—Draper was. As such, the people who inhabited Mantle were one or two generations removed from the occupation of the original Coalescent Village and had lived in and adapted to life in a very large

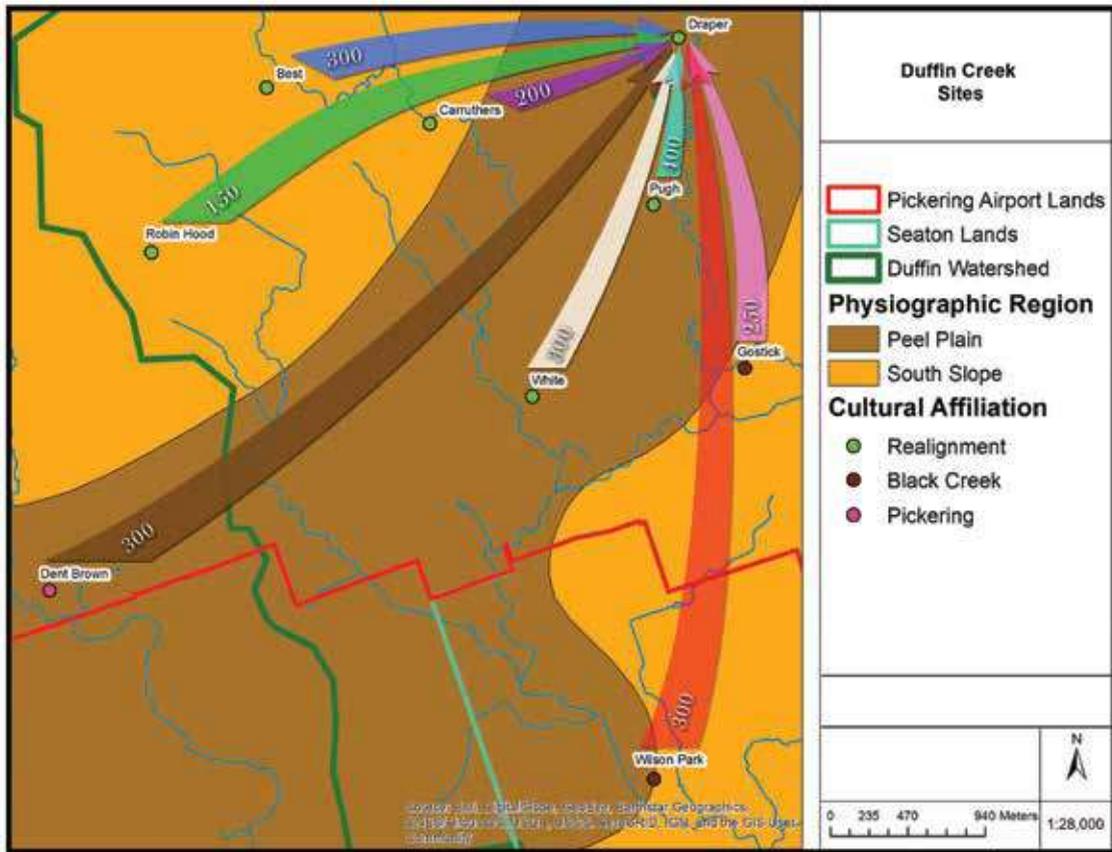
village setting. Further, it is noted that the analytical perspective of Birch (and on occasion Williamson) is that of a village occupied several decades after the original coalescent settlement. While familiar with most of the Mantle data, the author(s) exhibit, understandably so, less familiarity with the Draper data as reflected by such omissions as the lack of consideration of sweat lodges at both sites—in miniscule numbers at Mantle and massive numbers at Draper. Further, the authors seem more interested in the theoretical implications of Coalescent Villages than in the actual raw data available for study. They are further hindered, as noted elsewhere, by more or less and sometimes long-standing preconceived notions about the Ontario Iroquoians and their occupation of the land.

5.4 Origin of Sites Contributing to Draper, Spang, and Mantle

One of the crucial aspects of the concept of coalescent communities as developed by Birch and Williamson is their requirement that all the sites contributing to Draper (and ultimately Spang and Mantle) must have originated within the Duffin Creek drainage. This reflects the broad-scale underlying assumption of the Birch-Williamson approach to understanding the Ontario Woodland Tradition occupation of the central north shore of Lake Ontario in that each of the watersheds was occupied by a single community of ancestral Huron-Wendat which relocated the villages through time within the watershed until the advent of Coalescent Villages on the drainages such as the Humber and West Duffin Creeks. As a result, for the Duffin Creek watershed, the eight known Southern Division Huron sites—Gostick, Pugh, Best, White, Carruthers, Robin Hood, Dent Brown, and Wilson Park—had to be classified as villages. Only in this way could the assertion that the Draper site was created only by people living in the Duffin Creek drainage be supported (e.g., Birch and Williamson 2015, 99). The Birch-Williamson interpretation has been illustrated in Figure 5.1.

This is a continuation of the argument in Birch's Ph.D. thesis which reviews the occupation of the north shore of Lake Ontario from the Humber River in the west, to the Duffin Creek in the east. In describing the occupations of these drainages Birch assigns sites to 50-year chronological periods. In the absence of detailed description and analyses of ceramic seriations and co-efficient of similarity, similar to those presented for the Crawford Lake area (Finlayson 1998b), these suggested occupation sequences have not been convincingly documented.

Figure 5.1: Asserted Movement of “Villages” to Create the Draper Site (based on Birch and Williamson 2015, 99)



This approach is also contrary to more than 50 years of progress in understanding the Ontario Woodland Tradition occupation of the north shore of Lake Ontario and adjacent parts of south-central Ontario. It is also important to note that the coalescent communities discussed by Birch are all Southern Division Huron sites as defined by James V. Wright (1966) and as Realignment substage sites in this study.

As discussed, there is no doubt that White is a seasonally occupied hamlet and the original report on the Robin Hood site specifically defined it as a cabin site (Williamson 1982). It is likely, therefore, that Carruthers, given its location, was also a seasonally occupied hamlet.

Finally, the inclusion of Dent Brown is also puzzling since this site is actually located on a tributary of the Rouge River. Its arbitrary inclusion in the proposed sequence of sites on the Duffin Creek, simply because it was located by the same

archaeological investigations which discovered all of the sites except Wilson Park and Duffin Creek (i.e. the 1974–1979 work at the New Toronto International Airport), is not justified, although it is noted that Warrick, in his hypothetical sequence of villages which contributed to Draper, included not only Dent Brown but also Ken Reesor 2 (see page 7).

Accordingly, some of those groups that occupied Draper had to have either relocated from outside the Duffin Creek drainage (as suggested by Kapches 1990) or from unknown sites within the drainage. There is also the possibility that the expansions of the Draper site may not only have been the result of the addition of complete villages, but also perhaps due to the fissioning of one village with part of another leaving due to internal strife or some other factor, and joining another village. Further examination of the implications of this are presented in the following sections.

The information in this section of this publication clearly reveals that there are problems with the origins of the populations which formed the Draper site. An alternative hypothesis will be presented next, after the discussion of other aspects of Coalescent Villages as presented by Birch and Williamson.

5.5 Highly Organized and Preplanned Villages

One of the characteristics of the Mantle site which contributes to its more evolved status as a Coalescent Village is the argument that Mantle, during its first phase of occupation, was a village, a very organized one, and whose construction involved pre-planning especially in comparison to Draper.

Birch notes that:

Compared to Draper, the earliest iteration of the Mantle village looks dramatically different with its highly organized and clearly pre-planned layout. House clusters disappear, replaced by a village plan which privileged the parallel and/or radial alignment of houses throughout, with no obvious divisions or house groups. The likely presence of a single central plaza can be interpreted as a symbol of the integration of the community, a space through which the complex lines of cooperation and communication could flow (Hegmon 1989, 6) (Birch 2010, 129).

While this argument has merit, it under emphasizes the pre-planning which has been newly recognized for Draper as the currently known original Coalescent Village and

that Mantle was a village comprised of individuals who had lived in the larger, subsequent villages for many years. As noted, this pre-planning at Draper can be seen in the placement of the Core Village up to 30 m back from the break in slope, a placement which I now argue was preplanned and allowed for the addition of Segments A and B which involved the defensive placement of houses and the creation of two small plazas, parts of which were used to create middens at some time after the initial development.

Birch also notes that Mantle is a “tightly packed village plan and what Ron Williamson has called sixteenth-century urban planning” (2008, 7), which ignores the reality that there was significant planning in the construction of the Draper site as it expanded; it was just different planning. Birch also notes that using “Rapoport’s and Ingold’s frameworks that worlds are made before they are built, then the Mantle community must have existed *a priori* of the actual construction of the village itself” (ibid.). However, a close examination of the Draper site plan, particularly the placement of Segment A 30 m back from the top of bank, also suggests that there was a plan for an expanded village at Draper, perhaps one that was less complex in its overall extent, although we will never know if the final extent of Draper was part of an original overall plan.

At the Mantle site, the presence of a large plaza is denoted for the Early Phase of occupation of the site and this is seen as a “space where villagers could gather for events and ceremonies, or perform more mundane tasks such as tool making or preparation of hides, consolidating their new larger sense of community” (Birch and Williamson 2015, 80).

Strangely, Birch and Williamson ignore the presence of plazas, only a portion of which were used as middens, and other large open areas at Draper (see Figure 2.10) which may have served similar functions. That these areas are present in every segment of Draper indicates their importance for a variety of functions. The disappearance of this space in the second phase of the occupation of Mantle suggests changes in the layout of the village and the functions carried out within it.

5.6 Village Defenses

Mantle was also unusual in the changes to its palisades and, accordingly, the size of the village. It is reported that the original palisades encompassed 2.9 ha (Birch and Williamson 2015, 71) and were comprised of one to three or perhaps four rows of

posts. Two rows of palisades were added inside the original three rows along the northern and southern extents while along the eastern side of the village, two new rows of palisades were added about 10 m inside the original one to three rows in this area.

There was a second major rebuilding of the palisades with three rows of new palisade posts erected up to about 17 m inside the second stage palisades along the northern and northeastern sides of the village. Along the central portion of the eastern rows of the second phase of palisades, three additional rows of posts were added just inside the two rows from the second phase palisades. In the southeastern corner, the third phase palisades were moved inward for a distance of up to about 10 m. Along most sections of this third stage of palisades, there was a borrow ditch which provided soil to construct earthworks at the base of the third phase palisades.

Birch and Williamson note that at Mantle the houses are built about 10 m inside the palisades and that this promotes movement within the village (Birch and Williamson 2015, 72). This is in contrast to Draper where two houses (#3 and 45) abutted the palisades thus restricting access within the village with houses assisting in the defense of the village. Yet elsewhere at Draper, the houses were built about 10 m inside the palisades (e.g., House 25, 4, 5, and 45).

In reviewing the palisades at Draper and Mantle, Birch reiterates her rejection of houses as contributing to the defense of the village, which I presented as a hypothesis, not a theory. But the reality is that while the palisades may have been “formidable barriers unto themselves” (2010, 138), there has been no alternative hypothesis to explain the strategic placement of the longest houses at Draper. The return to four rows of palisades in Segment F, as was originally the case in Segment A, clearly indicates that three rows of palisades used in Segments B–E, was not considered a formidable enough barrier, otherwise there would not have been a return to the use of four rows in Segment F. It is interesting to note that the four rows of palisades abut one of the open areas in Segment F, which may have been a factor influencing the return to four rows rather than three.

As we have seen in this discussion of Draper, the palisades were significantly different when compared to Mantle. In part, this was the result of the expansion of the village. But the palisades were comprised consistently of three or four rows of palisades with four rows surrounding the Core Village and Expansion F and three rows surrounding Expansions B–E.

In their discussion of palisades, Birch and Williamson quote Englebrecht (2009, 180) “that any more than three rows would likely have been redundant” (2015, 71). If such were the case, why were there four rows of palisades surrounding the Core Village at Draper and four rows in the fifth expansion? Clearly four rows must have been more effective, otherwise the expenditure of labour required for the additional row would not have been expended in its construction.

Also notable for defensive structures at Draper were the rows of post moulds, interpreted as catwalks, immediately inside the Core Village and Expansion F. Based on evidence from the ethnohistoric data for the historic Huron-Wendat, it is suggested that these were used to assist in village defenses by providing warriors with a place to shoot at attackers with bows and arrows as well as a place for the storage of pots of water used to put out fires set at the base of the palisades and piles of rocks to hurl down on attackers. These defensive features were absent from Mantle.

For Draper, I also noted that the longest longhouses were placed just inside and parallel to the palisades in Expansions B–F, thus assisting in village defenses by creating long, narrow, easily defended corridors within the village should the palisades have been breached by attackers.

Given the above, it is obvious that there were significant differences in the defensive structures at Draper compared to Mantle. Draper would have been a better place to live since defense of the village from attackers who breeched the palisades would have been an easier task. For the intervening Spang site, the limited available information suggests four rows of palisades (Carter 1981) or perhaps three rows leading into multiple rows associated with an entrance to the Spang village. Clearly village defense was more important at Draper than at Mantle.

5.7 Small Structures within Draper and Mantle

One of the significant results from the massive increase in salvage excavation of Ontario Woodland Tradition villages in south-central Ontario has been the discovery of short longhouses which are interpreted as possibly representing the presence of Algonquians residing in Huron-Wendat villages. For example, Trigger noted the ties between the Nippissing and the Huron-Wendat “which historically involved large numbers of Nippissing spending the winter among the Attignawantan or Ataron-

chronon” (1976, 170). Examples of such structures were present at Molson and Dunsmore sites in Huronia (Lennox 2000; Robertson and Williamson 2003). A circular structure adjacent to the east end of House 3 at Keffer may also represent such an occupation (Finlayson et al. 1986).

Birch notes the presence of relatively large numbers of short longhouses or cabins which she suggests “may potentially be related to the presence of non-local visitors such as Algonquian speakers from the north who would winter with Iroquoian communities as was common in the historic period and with whom Ontario Iroquoians had a well-developed associations (Tooker 1967:25, Trigger 1976:170-171)” (2010, 122).

This consideration of short longhouses at Mantle, along with the contributions of Doug Williams (2018) also has led me to reconsider the two pairs of overlapping houses in Expansions B and C at Draper suggesting that these may also represent Algonquian occupants at Draper. This is a suggestion which needs to be the subject of further investigation of the Draper data.

5.8 Implications of Development of Large, Coalescent Villages

One argument in Birch’s 2010 paper entitled *Coalescence and Conflict in Iroquoian Ontario* is that: “The formation of larger communities would have reduced the need for men and women to go beyond the village in search of marriage partners, with the result that ties between communities that had previously helped to diminish conflict would have been weakened” (Birch 2010a, 43). I would suggest that there were continued exchanges of marriage partners among villages across the north shore of Lake Ontario and beyond. Support for this argument is evident in the similarities in the material culture of the Black Creek and Realignment substage sites that can only be explained by the acquisition of marriage partners, notably by the women who made the pots. It must be remembered that the Draper to Spang to Mantle coalescent community existed on Duffin Creek for perhaps a half a century, depending on the length of time each of these sites were occupied, a matter of continued speculation. Until more data are available from these coalescent communities and the chronologies for the occupations of each of the sites in the local sequences, the extent of conflict and its causes must remain a matter of speculation.

5.9 Origins of Ontario Woodland Tradition Coalescent Villages in Northeastern North America

In Chapter 4 of the book on Mantle, Birch and Williamson state that “the formation of the community that occupied the Mantle site represented a process of population aggregation and sociopolitical transformation that, prior to the late fifteenth and early sixteenth centuries, had never before been seen in Iroquoia” (ibid., 53). As noted elsewhere, this statement is simply wrong. My study of the Iroquoians of the Crawford Lake area (Finlayson et al. 1998) clearly demonstrates the coalescence of Pickering people to form the Kraus site which underwent four expansions to become a 1.9-ha village (Finlayson 1998b, 188). The village occupied after Kraus is the 1.9-ha Centre Track site and is clearly another Coalescent Village dating back to the 12th century, approximately three centuries before the Draper-Spang-Mantle sequence of Coalescent Villages. The 5.5-ha Middleport Acheson site also represents another early example of Coalescent Villages in the Crawford Lake area as does the 3.5–4.0-ha historic Neutral Irving-Johnston site (Finlayson 1998b).

Birch and Williamson’s lack of consideration of the results of the Crawford Lake research represents an inadequate level of background research and a disconcerting trend which is pervading the interpretation of the Ontario Woodland Tradition archaeological record.

5.10 Origins of the Villages which Joined Draper

As previously discussed, Birch and Williamson propose that the Draper site was comprised of eight smaller villages within the West Duffin Creek drainage which amalgamated to create the first Coalescent Village on the drainage. I reject this argument for two reasons. Three of the sites—White, Carruthers, and Robin Hood—were seasonally occupied hamlets/cabins located near corn fields some distance from the major villages such as Gostick, Pugh, and Draper. Further, Dent Brown is located outside the West Duffin Creek drainage. As a result, it is very likely that some of the villages which joined Draper came from outside the Duffin Creek drainage, something suggested by Kapches (1990). This, of course, assumes that the majority of the Black Creek substage sites on the Duffin Creek drainage have been found. We simply do not know of the possible role of unlocated settlements in the creation of Draper.

Being cognizant of the above limitations, it is still possible to present an alternative explanation for the origin of the villages which contributed to Draper. The most significant information comes from one piece of ethnohistorical data documented by the Jesuits during their sojourns with the Huron-Wendat in historic Huronia in the 17th century. Of particular importance for our understanding of the growth of Draper was an A.D. 1636 plan by Aenons, a council chief among the Attignawantan, one of the five Huron tribes resident in Huronia “who won the Jesuits’ support for a plan to have the five small villages in the northern part of the Penetanguishene Peninsula, including Wenrio and Ihonatiria, join together to form a single town that could be fortified against the Iroquois” (Trigger 1976, 517). The original reference from the *Jesuit Relations* states:

That is the harangue of this Captain; and, in my opinion, it would, if the subject moved him, pass in the judgment of many for one of those of Titus Livinus; it seemed to me very persuasive. In effect, I replied that he laid us under obligations by the affection he showed for us, which he had made apparent on several occasions, but above all on this one; that we were perfectly satisfied with the idea of transporting our Cabin to his Village; that we had intended doing this for a long time, and had only stayed at Ihonatiria as in a Village which was depending on him, and was keeping apart only for a time; but, nevertheless, we could not yet resolve to pledge our word unless the Captains of the five Villages which were to meet would promise us, in the first place, in the name of all their subjects, that they would be content to receive the Faith... (JR X, 245).

This plan was made, in part, because of the threat of an attack by the League Iroquois south of Lake Ontario. While the plan was never implemented, it is illustrative of the significant decisions which could be made through the complex socio-political organization of the historic Huron-Wendat.

Another example of the efforts to relocate Huron villages from the *Jesuit Relations* states:

Among the villages that wished to have us, the people of Oenrio have entreated us most. This little village, quite near ours, used to be a part of the one in which we were formerly; but we have not judged it expedient for us to stop there this time, simply having recognized it to be best that from this village and from ours one should be formed at some other place, both for their common interests and for our own... (JR VIII, 105).

Using these references in the ethnohistorical literature, particularly the plan to amalgamate five small villages, I suggest that the creation of the Draper site was a decision made by multiple communities, some of whom occupied sites on Duffin Creek and some from elsewhere, to get together to create the Draper village. This suggests a similar complex socio-political organization capable of making a decision to create Draper as was present in 17th century historic Huronia. Whether some of the small “villages” contributing to Draper were located to the east or west of the Duffin Creek drainage, or further afield, is a question beyond the scope of the current study. I wonder whether extant samples of artifacts, predominantly ceramics, from such villages excavated on a CRM basis are of sufficient size or contain the ceramic attributes, have had the relevant attributes recorded, or represent different parts of the site which would allow the investigation of such a hypothesis. It is worth noting that my study of the Middle Iroquoian occupation of the Crawford Lake, Mountsberg, and Kelso Localities demonstrated that the ceramics assemblages did contain attributes which could be used to separate the different contemporaneous communities (Finlayson 1998b). Such may or may not be the case in the 16th and 17th centuries on the central north shore of Lake Ontario.

It is important to stress that all villages or segments of villages which joined together to form the coalescent Draper village were Black Creek substage villages (or what were previously Southern Division Huron villages as defined by James V. Wright (1966). This is yet another argument for the continued use of culture history as an organizational tool to begin the process of understanding the development of Iroquoian socio-political development in the second millennium A.D. As previously indicated, Coalescent Villages are an early diagnostic of the Iroquoian occupation of south-central Ontario as manifested by the presence of the Pickering substage Kraus and Centre Track sites (Finlayson 1998b), something not recognized by Birch and Williamson. Thus, the investigation of Coalescent Villages is not a substitute for culture historical studies, but rather something which can be most profitably studied once the culture history of a region or regions is fully researched and understood.

It is interesting to note that Kapches’ (1990) study of the spatial dynamics of longhouses on selected sites in southern Ontario suggested that Segments C and E represented additions to Draper from non-local groups.

As noted, the pioneering study by Trigger and his associates of variations in the chemical composition of ceramics from Draper and 15 other Iroquoian sites, suggests there is potential for additional studies of this sort on Draper site ceramics, especially

given the new interpretations about the sequence of expansions of the village presented in this study.

Regardless of where the sites that contributed to Draper originated, it is clear that some of these were outside the Duffin Creek drainage and that their coalescence at Draper represented a level of socio-political organization similar to that which existed in 17th century Huronia.

There must also be a discussion of the origin of those who occupied the Core Village at Draper. This consideration must address the ceramic differences between the various houses in the Core Village. As stated previously, these differences led Pearce to state “that after a century of archaeological work in Ontario we still don’t understand ceramics of the Ontario Iroquois” (1978a, 72). But perhaps we have not looked at the data from the right perspective.

In re-examining the longhouses in the Core Village, I noted that three of the longest houses (#6, 10, and 12) were also the widest of all houses in the entire Main Village, being 7.9 m wide. Also, two of these were subsequently shortened (#6 and 10). This leads me to propose that three, or perhaps even four separate villages, contributed to the Draper Core Village. I have suggested that eight houses comprised the original Core Village. There are three pairs of houses (#9 and 10, 29 and 12, and 4 and 6), each of which contained a very wide long longhouse (#10, 12, and 6 prior to its shortening and the additions to 4) and each was occupied by a chief. These chiefs would have helped plan, organize, and implement the construction, not only of the Draper Core Village, but also of some of its expansions. If this were the case, perhaps the shortening of Houses 6 and 10 signifies the relocation of the chiefs who occupied these houses, to other long longhouses in other segments of the Main Village. Only the detailed re-analysis of data on all the rim sherds and castellations from the Core Village might provide further information on this hypothesis (note, however, that a review of the densities of artifacts from the living floors of Houses 6, 9, 10, 11, and 12 have generally similar densities suggesting that these houses were continually occupied during the occupation of the entire site). Though, it would be necessary to re-examine the entire collection of ceramics to search for additional attributes which might contribute to the resolution of this matter. This hypothesis that three clusters of houses might represent individuals from three separate villages who contributed to Draper might be expanded to include a fourth pair of houses (#29 and 11) suggesting that four different villages originally joined together to create the Draper Core Village. While it may be difficult or even impossible to explore this hypothesis, it needs to be considered

as one explanation of the diversity of ceramics documented by Pearce for Core Village houses and his comment that we do not yet understand ceramics from complex villages such as Draper.

Given the exclusion of the White, Carruthers, Robin Hood, and Dent Brown sites as the source of populations that contributed to Draper, the search for the communities providing these populations must extend beyond the Duffin Creek drainage. Were these communities located to the west of Duffin Creek or could they be from watersheds to the east? Or could both areas be contributing populations to Draper? Or could there be sites from further afield that contributed people to Draper, beyond the small group of Neutrals which occupied House 45? It will only be possible to pursue this hypothesis if distinctive attributes can be found for each of the segments of the Draper site which were added to the Core Village and which can be matched with similar attributes of ceramic assemblages on or beyond the Duffin Creek drainage. It is entirely possible however, that such attributes may not exist or may be beyond our abilities to discover their significance. There also remains the issue of the numbers of sites which have not yet been found or sites for which there are not adequate samples of ceramics for comparison. Could it be that the increased complexity of precontact Black Creek and Realignment substage socio-political organization was not reflected in the ceramic assemblages? If this were the case, it would preclude the further investigation of these issues. Further discussion of these matters requires significant amounts of new data both from a restudy of all the Draper site ceramics and from other sites on Duffin Creek and beyond. Such studies are well beyond the scope of this publication.

5.11 Integrating the Villages which Joined Draper

As noted previously, Birch has made an important contribution to our understanding of the precontact Iroquoian occupation of Duffin Creek and the Don and Humber Rivers to the west. Yet her discussion of this matter and subsequent discussions in publications with Williamson, have not addressed the possible ways in which those populations who moved into Draper were integrated into the village. Certainly, the coalescence of several smaller villages to form the Draper site over a period of approximately 25 years would have required the adoption of mechanisms to facilitate the integration of the incoming populations of several hundred people each, especially if some of these populations arrived from outside the Duffin Creek drainage. I would suggest that there are a number of ways in which this integration was accomplished.

In exploring evidence for how integration of incoming communities was achieved for the Draper site, I draw comparisons on the creation and maintenance of alliances between the late Uren, Middleport, and early prehistoric Neutral communities in the Crawford Lake area, 82 km southwest of Draper. These are documented in my 1998 publication on 76 Iroquoian sites in this area, a study not referred to by Birch and Williamson. This study documented the following features in longhouses and how significant changes preserved material culture which relate to the integration of these communities:

- in the presence of evidence of sweat lodges;
- quantity and decorations of high collared pottery vessels;
- decorative techniques and motifs of collared (and collarless?) vessels;
- quantity and decorations and shapes of clay smoking pipes;
- quantity and kinds of modified deer phalanges; and
- quantities of bone beads and the bones from which they were manufactured.

I now examine these integrative mechanisms in relation to the creation of the Draper site as a coalescent community on the West Duffin Creek.

5.11.1 Presence of Sweat Lodges

My study of the Middle Iroquoian occupation of the Crawford Lake area did not focus on the presence of semi-subterranean sweat lodges as an integrating factor in the creation and alliances of the Middleport villages. This was largely a result of the fact that few of the sites I discussed were subject to excavations to recover house pattern data. I note that semi-subterranean sweat lodges were documented for the Unick and Crawford Lake sites (Finlayson 1998b) and had been present at the earlier Bennet and Gunby Pickering sites and the Laurensen and Scout Uren sites (*ibid.*). This clearly indicates the use of sweating as a means of integrating men into villages.

Above ground, temporary sweat lodges were found within the central corridors of 28 of the longhouses in the Draper Main Village and three of the houses in the South Field. Allan Tyyska, almost 50 years ago, gave a ground-breaking conference presentation in which he pioneered the recognition of circular clusters of small post moulds as evidence of temporary sweat lodges as described in the ethnohistorical literature (Tyyska 1972, 2015). In his study, he suggests the presence of these temporary sweat lodges at the Miller site (2015, 73). The presence of such a temporary sweat lodge at the Peter Webb I site (see page 207) supports a long history of the use of these temporary structures on sites on Duffin Creek and beyond.

I note that 19,773 sweat bath post moulds were documented within the Draper site houses (Finlayson 1985). If six post moulds were created each time a sweat lodge was constructed, almost 3,300 separate temporary sweat lodges would have been constructed, used, and disassembled. As Tyyska noted, these were constructed in very specific places in the central corridors of longhouses showing a very well-developed sense of spatial utilization.

For Draper, it is likely that the above number of post moulds is an underestimate of the number of sweat bath post moulds, especially in the Core Village, where the density of sweat bath post moulds was such that not all post moulds would have been visible and recorded because of overlapping in very constrained spaces.

It was noted above that the excavation of about four m of the end of a single longhouse at Pugh produced evidence for a single circular sweat bath with 73 post moulds which is interesting when considering that the entire excavations at Mantle produced only five clusters of sweat bath post moulds with a total of 215 post moulds. It is also notable that the authors of the section on settlement patterns, Clish and Birch, describe four of the five circular clusters of post moulds with descriptions such as: "These posts may have supported a cooking rack or structure or this could be another above ground sweat lodge" (ASI 2012a, 57). When compared to the cluster of sweat bath post moulds at Draper, there is no doubt that these features at Mantle are the remains of temporary above-ground sweat bath structures. There is no discussion of these features in the "Settlement Patterns: Discussion and Summary" section of the report.

Using six post moulds per sweat bath which seems reasonable give the general clustering of sweat bath post moulds in groups of six to form the circular cluster, this suggests only 36 separate sweat lodge uses at Mantle. What is most fascinating is that the houses which contain above-ground sweat lodges cluster in the western portion of the village and that three of the houses (#44, 45, and 59) are considered Early Phase houses (*ibid.*, Figure 7), while only one house (#41) is considered a Late Phase house (*ibid.*, Figure 8) while one (#55) is not assigned to either phase due to inadequate data. Clearly then, it was the residents of only one part of the Mantle village who participated in sweating in above-ground temporary sweat lodges. As will be discussed, this is interpreted as an example of the lack of means of integrating men into large villages such as Mantle, a pattern distinctly different than at Draper. Could this have been one factor in the chaotic pattern of houses in the second phase of Mantle where the means of integrating men at Draper had disappeared at Mantle?

5.11.2 High Collared Pottery Vessels

While complete data are not available, it has been noted that 8.5% of the 881 rim sherds analyzed by Ramsden (1968, 53) and 5.5% of those analyzed by Pearce, represent high collared pottery vessels (Pearce 1978, 45). I have argued elsewhere (Finlayson 1998b) that the dramatic increase in high collared vessels on the Middleport substage sites in the Crawford Lake, Mountsberg, and Kelso localities represents feasting associated with the creation and maintenance of alliances between the Middleport occupants of the Crawford Lake locality, who had occupied the Burlington and Crawford Lake localities since about A.D. 1000, and the Neutral Middleport communities who moved into the areas to the east and west of the Crawford Lake locality villages from further west in Ontario. I contend that these occupations by people from the west were, in part, made possible by the creation and maintenance of alliances through feasting using high collared vessels. Accordingly, the higher percentage of high collared vessels at Draper compared to lower occurrences at the earlier Pugh site (8.6% of the castellations, Timmins 1981, 31) and their absence from the later Spang (Birch et al. 2016, Table 4.1) and Mantle (0.5%, ASI 2012a, Table 8) sites suggests that feasting was less important at these sites than at Draper.

5.11.3 Smoking Pipes

Evidence for the creation and maintenance of alliances among the “proto-Huron” Middleport community and the two “proto-Neutral” Middleport communities in the Crawford Lake area demonstrated that these three groups were also manifested by the very significant increase in the number of ceramic smoking pipes. This was quantified as the number of pipe fragments per 100 ceramic vessels. In the Crawford Lake locality the number of pipes per 100 vessels changed from 28/100 at the latest Uren site (H & R) (Finlayson 1998b, 582) to 45, 117, and 78 per 100 vessels at the successively occupied Middleport Unick, Rife, and Van Eden villages (Finlayson 1998b, 618).

For Duffin Creek, the numbers of pipes for Pugh, Draper, Spang, and Mantle are 47, 32, 6, and 29 pipes per 100 vessels/rim sherd (Timmins 1981, 4, 32; Pihl 1978, Table 77). It should be noted that the number for Draper would be higher if a vessel analysis had been completed. These data suggest that there was an increase in smoking pipes per 100 vessels, but that this began at Pugh, perhaps decreased slightly at Draper, decreased significantly at Spang, and increased again at Mantle. This might suggest that Pugh was also a Coalescent Village preceding Draper, that smoking was less important at Spang, but regained importance at Mantle.

5.11.4 Bone Beads and Modified Deer Phalanges

In the Crawford Lake area there were also significant increases in the numbers of bone beads and modified deer phalanges at the time of the creation and maintenance of alliances between the original Iroquoian occupants of the Crawford Lake area and the incoming proto-Neutral occupants who arrived from the west. In this area the number of bone beads per 100 vessels changed from 1/100 at the latest Uren site (H & R) to 9, 31, and 13 per 100 vessels at the successively occupied Middleport villages Unick, Rife, and Van Eden sites (Finlayson 1998b). In the Mountsberg locality to the west of the Crawford Lake locality, the number of bone beads changed from 32 to 100 per hundred vessels at the successively occupied proto-Neutral Middleport sites of Chypchar and Winking Bull, to 92 at the later occupied prehistoric Neutral Campbell site. In the Kelso locality the number of beads per 100 vessels changes from 16 to 26 to 44 at the sequentially occupied proto-Neutral Middleport Pipeline, Retreat, and Acheson sites.

For the West Duffin Creek sites, the number of bone beads increases from 4 per 100 rim sherds at Pugh to 10 at Draper and drops to 3 at Spang and 0.2 at Mantle.

Similar patterns were present for modified deer phalanges. The number of modified deer phalanges per 100 vessels changed from 5 per 100 at the latest Uren site (H & R) (Finlayson 1998b) and from 13, 25, to 16 per 100 vessels at the successively occupied Middleport villages Unick, Rife, and Van Eden (Finlayson 1998b). In the Mountsberg locality to the west of the Crawford Lake locality the number of modified deer phalanges changes from 1 to 9 at the successively occupied proto-Neutral Middleport sites of Chypchar and Winking Bull to 4 at the later-occupied prehistoric Neutral Campbell site. In the Kelso locality the number of modified deer phalanges per 100 vessels changes from 35 to 7 to 15 at the sequentially occupied proto-Neutral Middleport Pipeline, Retreat, and Acheson sites.

Similarly, for the West Duffin Creek sites, the number of modified deer phalanges was 2 per 100 rim sherds at Pugh and increases to 8 at Draper and declines to 2 at both Spang and Mantle. While the differences are not as pronounced for the Duffin Creek sites as they were in the Crawford Lake, Mountsberg, and Kelso localities, the same general pattern is present and I argue that the increase in the number of bone beads and modified phalanges at Draper represents, at least in part, an attempt to reflect community identities through the display of these items.

5.11.5 Creating a Need for Trading Relationships

As noted above for Draper, Pearce has reported that more than 50% of the complete clay pipes were found in middens as were 85% of the complete modified deer phalanges, 90.8% of the stone pendants, and 85% of the stone discs. Research is currently underway to reexamine selected aspects of the Draper site artifact collection to see if these patterns of disposal hold for other categories of artifacts.

These patterns are unusual, if not unique, and this can be related to the large number of 1 x 1 m squares excavated in undisturbed (and disturbed) middens at Draper. Clearly these patterns need to be explained.

Therefore, the following hypothesis is presented. This hypothesis uses ethnographic data for the Yanomamö of Brazil and Venezuela as documented by Napoleon Chagnon who reports that the initial stages of alliance formation among the Yanomamö involved the creation of a demand for trade for selected items by pretending not to know how to make these items such as pottery vessels. Since this knowledge was supposedly lacking, there was a need to obtain these items (in this example, pots) by trade from a nearby community which had pots to trade. This trade initiates the process of alliance formation, the next step of which is feasting between the two groups that had begun trading. The end stage of this process is exchanging women between the villages.

This hypothesis proposes that the deposition of a wide variety of complete artifacts in middens at Draper and other Realignment sites takes these artifacts out of use and provides a demand for new items which had to be obtained by trade, therefore initiating or continuing the process leading to feasting. In this scenario, this would have provided another means of integrating the different villages which joined Draper. If this is the case, it provides a very compelling argument in support of our decision to expend significant efforts in the complete or almost complete excavation of as many middens as possible in our 1975 and 1978 excavations at Draper. This also is a dramatic counterargument to that of Ramsden who stated, “the equally complex catchment patterns of middens make them all but useless as sources of artifactual samples, for any but the most general of analytical purposes” (1996, 106).

Could these activities be a precursor to the pattern noted by Ramsden (1981) in which trade goods were deposited as grave goods in ossuaries, thus creating a demand for more through trade with the French in the 17th century?

5.11.6 Open Spaces within the Draper Site

Birch argues that the first stage of the occupation of the Mantle site involved the placement of houses to create a sizeable plaza in the eastern portion of the village and that this provided space for the interaction of villagers in the large open area. She also notes that the two plazas I defined for the Core Village and Expansions 1 and 2 were used to dispose of garbage thereby creating large middens which precluded the use of these plazas as meeting places or areas to undertake certain activities. However, as noted, for the two plazas created by the addition of Segments B and C to the Core Village, only a percentage of the plaza areas were used for disposal of garbage.

Further, there are large open spaces in the Core Village and Expansions 3 to 5 which would have served the same function as the plaza discussed by Birch for the Mantle site. Accordingly, these open spaces at Draper would have served the same function as that at Mantle, that is providing a large open area where people would meet and undertake a wide variety of activities associated with the occupation of the village.

5.11.7 Disintegration of the Coalescent Mantle Village

As previously discussed, Birch and Williamson argue that the first phase of the occupation of the Mantle site involved considerable planning with houses placed in a radial fashion, sometimes two deep around the large plaza located on the eastern edge of the village. There was a subsequent second phase with significant rebuilding of houses and overlapping of houses. The presence of a relatively large number of very short houses is interpreted as a possible third phase occupation which incorporated Algonquian speakers. In a recent commentary on Mantle, Bursey has suggested that there may even have been a fourth phase of occupation (2018).

After the well planned first phase, I would characterize the second phase as almost chaotic. What is most important at Mantle, even in its first phase of occupation, is the disappearance of those features which were present at Draper and which I interpreted as being factors which helped integrate the newcomers to Draper. The most important differences between Draper and Mantle are:

- The virtual disappearance of sweat lodges in the central corridors of the Mantle houses. As noted there were only 215 sweat bath post moulds in five of the 96 Houses at Mantle compared to 19,535 post moulds in 31 houses at Draper. Clearly sweating was not a mechanism used to integrate the residents of Mantle;

- The significant decrease in the numbers of high collar vessels at Mantle where there was a single Lalonde High Collared vessel and one high collared vessel comprising 1.0% of the rim sherds (Birch and Williamson 2015, 131). While the number of high collared vessels at Draper varies (5.5% to 8.5%), it is substantially higher than at Mantle suggesting a greater importance of feasting at Draper than at Mantle;
- The decrease in the numbers of smoking pipes at Mantle where there were 28.6 pipe fragments per 100 vessels/rim sherds compared to 46.7 per 100 rim sherds at Draper. Again, there appears to have been a decrease in smoking, perhaps representing less emphasis on activities which would have integrated Mantle; and
- The decrease in the numbers of artifacts such as bone beads, modified deer phalanges, etc., at Mantle compared to Draper. There were 10 bone beads per 100 rim sherds at Draper and only 0.2 bone beads per 100 rim sherds at Mantle. Similar numbers for modified deer phalanges were 8 per 100 rim sherds at Draper and only 2 per 100 at Mantle. Given the arguments presented above regarding the role these kinds of artifacts played in the integration of the people at Draper, it is obvious that these did not play such a role at Mantle.

5.12 A Comparison of Iroquoian Development on the Duffin Creek Drainage and the Crawford Lake areas

The above overview of Iroquoian development on Duffin Creek provides the background for a comparison of Iroquoian development in the Crawford Lake area as presented in detail in my 1998 study of 76 sites in this area.

A re-consideration of the Crawford Lake area not only provides new insights into the development of Frontier Coalescent Villages, but my significantly revised chronology for Iroquoian development, rarely cited by almost all except James V. Wright in his *History of the Native People of Canada, Volume 3, Part I*, has now received additional support from the recent publication of a study of C14 dates from the Draper-Spang-Mantle site sequence and the Warminister (Cahiague) site in historic Huronia (Manning et al. 2018).

In comparing Iroquoian development in these two regions I again stress, as noted, that for the Duffin Creek drainage, it is very likely that not all sites have been found and that for many sites the samples of artifacts is not sufficient to provide even a

preliminary sequence of occupation for the entire drainage. I have also noted that for the Crawford Lake area, not all sites were found. For example, it is clear that some of the occupants of the very large Kraus and Centre Track sites moved to Coverdale, perhaps via an as-yet-to-be-located intervening village, while others must have relocated elsewhere and their villages remain to be found.

The dating of the sites in the Crawford Lake area is based in part on C14 dates for the Pickering substage sites and dating of episodes of field clearance and field abandonment related to villages in the immediate Crawford Lake area based on detailed studies of the varved sediments from Crawford Lake (Byrne and Finlayson 1998b, Table 1.7.1).

Based on this chart, the Crawford Lake sequence may be summarized briefly, as follows. The substantial detail for this can be found in my four-volume study.

The earliest occupation in the Crawford Lake area is by Pickering people who, I believe, moved into the area from the east and settled in the Burlington locality where they occupied four sequential small villages: Tara West, Tara East, Ireland, and Five Acre Field. Villages increase from 0.3 to 1.1 ha in size with population estimates increasing from 50 to 110 to 150 for the Tara West, Tara East to Ireland sites (Finlayson 1998b, 376). These people then moved northwest on to the top of the Niagara Escarpment where they were joined by other early Pickering people at Zumpfe, the earliest known component of the Crawford Lake locality, to form the very large coalescent Kraus site (1.9 h) with an estimated population of 470 (Finlayson 1998b, 189). They subsequently relocated northeast to the equally large Centre Track site. From Centre Track, it would appear that the community split, with some residents ultimately residing at Coverdale and then relocating to Gunby, South Track, and Bennett. It was from Bennett that the Pickering Conquest of Glen Meyer Algonquians to the west began. This Pickering Conquest was initially a hypothesis (James V. Wright 1966), then elevated to a theory (James V. Wright 1992) and then was further substantiated by my additional research in the Crawford Lake area (Finlayson 1998b). James V. Wright further expanded the theory by lumping Glen Meyer with Western Basin in his *A History of the Native People of Canada*, Volume III, Part 1, which remains the only detailed, data-based synthesis of Canada's archaeological history, the chapters on the Ontario Iroquois culture and the Glen Meyer/Western Basin culture being most relevant to this study.

After Bennett, there are three sequentially occupied Uren villages, none of which were palisaded and in which houses were more widely spaced, indicating a lack of

concern with defense, a situation which provides additional support for the Conquest Theory since the frontier with the Glen Meyer had moved west. Of particular interest is the appearance of high collarless and high collared vessels in small numbers, indicative of the first stages of an alliance formation and maintenance which becomes much more apparent in the succeeding Middleport occupations of Unick to Rife to Van Eden with the satellite village Crawford Lake occupied at the same time as the Unick and Van Eden sites. Rife is the first village in the Crawford Lake locality to be situated adjacent to a steep break in slope indicating a concern for defense. These Middleport villages and satellite village have relatively large numbers of high collared vessels, pipes, and other items such as bone beads and modified deer phalanges, interpreted as evidence for feasting related to the maintenance of alliances and community identification. This is a result of the migration into the area from the west of four communities of Middleport people occupying the Chypchar, Winking Bull, Itldu, Pipeline, and Retreat villages. The sites of these incoming communities also have relatively large but varying numbers of high collared vessels, pipes and other artifacts such as bone beads and modified deer phalanges which again are interpreted as evidence of alliance creation and maintenance and community identification compared to the Crawford Lake locality people who had occupied the area since about A.D. 1050. About A.D. 1474 the Retreat and Pipeline people occupy the coalescent Middleport Acheson village while there is no further evidence for villages of the Crawford Lake locality. It is uncertain if these people moved out of the area entirely, amalgamated with those who occupied Acheson or ceased to exist because of warfare or disease.

From Acheson there appears to have been the sequential occupation of three prehistoric Neutral villages: Milton, Cornerbrook, and Fairview with a subsequent occupation of the coalescent historic Neutral Irving-Johnston site. From this Coalescent Village, I proposed a split into two village sequences: Kelso Heights-Carton to Chudleigh, and Milton Heights to Robertson-Spratt to Brown to Fisher.

Further details on this complex occupation of the Crawford Lake area are presented in Finlayson (1998). What is important is that it was possible to trace, at least in a preliminary fashion, the development of one or two Iroquoian communities from an initial occupation in about A.D. 1040 to its disappearance about A.D. 1504. Associated with this was the micro-migration into the area of four communities of Middleport people about A.D. 1420 resulting from alliances with the original community of people, the subsequent disappearance of the original community, and the development of the incoming communities into the historic Neutral occupants of the area.

By way of comparison, on Duffin Creek drainage we see an initial occupation by Pickering people, with the possibility of two communities occupying the eastern and central branches of Duffin Creek. This is followed by an Uren substage occupation, which is poorly represented perhaps by inadequate archaeological surveys. There appears to be a larger occupation of the Duffin Creek drainage by Uren people with perhaps a migration of one community into the area as reflected by the large number of pipe fragments at the Sebastien site. The Late Stage Ontario Woodland Tradition occupation shifts to the western branch of Duffin Creek with the occupation of two, or possibly three Black Creek substage villages prior to the Realignment substage with the Pugh to Draper to Spang, and Best to Mantle occupations. with Draper being comprised by the incorporation of at least five villages, some of which originated outside the Duffin Creek drainage. Given the complexity of the Draper site ceramic assemblage as documented by Pearce (1978a) it may be very challenging to determine the origins of these incoming communities.

Our inability to resolve the matter of the ultimate fate of occupants of the Burlington and Crawford Lake localities from about A.D. 1050 to 1474 indicates that while this is clearly a population of Iroquoians, it was not ancestral to the Huron-Wendat occupation of historic Huronia. This is demonstrated clearly by Williamson's *Archaeological History of the Wendat to A.D. 1651* which completely excludes the Iroquoian occupations of the Burlington and Crawford Lake localities from his discussion. However, this sets a valuable precedent for our understanding of the Iroquoian occupation of the Duffin Creek drainage where the current study documents the only in situ sequence of sites from the Pickering substage to the Realignment substage. Given the recent number of radiocarbon dates which indicate that the Realignment substage Mantle site is contemporaneous with the well documented Huron-Wendat Warminister (Cahiague) site in historic Huronia, it is clear that the Iroquoian occupation of the Duffin Creek, like that of the Burlington and Crawford Lake localities, represents the development of an Iroquoian community over about 800 years, which is not Huron-Wendat. This conclusion raises the very significant question about the origins of the "historic Huron-Wendat" and the social and political events which led to their occupation of historic Huronia. It is clear that our current interpretations will have to be reconsidered, as suggested by Manning et al., but that this re-consideration will be extremely challenging to our current interpretations, many of which exceed the limitations of existing data.

5.13 Chapter Summary

This chapter presents the concept of Frontier Coalescent Villages as a specialized type of Coalescent Village. This represents an elaboration of the concept of Coalescent Villages as detailed by Birch and Birch and Williamson in a variety of articles.

The chapter also explores the evidence from the Draper site as the earliest documented Coalescent Village on Duffin. Draper represents the amalgamation of five or six villages, or parts thereof, to create a very large village which is situated on the frontier with Iroquoian villages to the east and southeast with which there appears to have been varying amounts hostilities. Particular emphasis is placed on the evidence for the means by which these villages were integrated and the lack of these integrative mechanisms at Mantle, a community occupied about 30 years after the coalescence of Draper.

The chapter also presents a preliminary comparison of Duffin Creek with the occupation of the Crawford Lake area detailed in my landmark study (Finlayson 1998b). Of particular note is the presence of Early Pickering, Middleport, and historic Neutral Coalescent Villages, the existence of which was missed by Birch and Williamson and which clearly demonstrates Coalescent Villages as one of the diagnostics of the Ontario Woodland Tradition sites in south-central Ontario.

Chapter 6

The Draper Site and Beyond: Moving Forward

Forty-one years after the completion of the excavations, the Draper site remains one of the most significant excavations of an Iroquoian site in northeastern North America.

This review of the research on the Draper site collections over the past four decades clearly indicates that major advances to our knowledge of the Ontario Woodland Tradition occupation of Duffin Creek and the north shore of Lake Ontario have been made from these major excavations and by the initial and ongoing research of the data collected. Both the artifact collections from the site and the unique settlement pattern with its expanding village, South Field, and Structure 42, provide a unique data base which can be used to further explore the Ontario Woodland Tradition occupation of the site and Duffin Creek drainage and areas beyond. This chapter reviews briefly the potential for future research.

As noted, the Draper site investigations resulted in the excavation of 1,860 1 x 1 m squares and 260 2.5 x 2.5 m squares in and adjacent to undisturbed longhouses. While Houses 12 and 38 have been subjected to study by Angele Smith and her data have contributed a further understanding of activity areas in Houses 12 and 38, these kinds of studies need to be expanded to include the further investigation of Houses 12 and 38 and begin work on Houses 5 and 19–21 which had a significant number of 1 x 1 m squares excavated in undisturbed living floors as well as the area to the northeast of House 38. Similar studies need to be completed for Houses 6, 9, 10, and 11 which had these deposits removed in 2.5 x 2.5 m quadrants.

The excavations also collected artifacts from the plough-disturbed deposits in and adjacent to all of Structure 42 as well as parts of Houses 33, 36, 37, 39, and 40. These artifacts need to be analyzed not only to help understand the relationship of the South Field and Structure 42 to the Main Village, but to assess the productivity of plough soils in an attempt to understand exactly how much information we are losing by removing plough soils by gradall on other Ontario Woodland Tradition sites, especially those on the central north shore of Lake Ontario where the emphasis has been on

collecting settlement pattern data through the removal of topsoil with little examination of plough soils.

My original study of Draper site settlement patterns (Finlayson 1985) and a further consideration of these data in this study have provided yet more insights into the settlement patterns at the site and those of nearby Frontier Coalescent Village sites such as Spang and Mantle. However, my research has not considered the contents of the more than 1,889 pits investigated in the 41 houses in the Main Village, the South Field, and Structure 42 except for the presence of those containing human burials and dog burials. While there were no obvious examples of ritual pits such as the double vessel burials discussed by Joyce M. Wright for Maynard-McKeown, there is certainly the possibility of less noticeable ritual features such as those containing the skull of a single animal.

One of the major deficiencies at present is the lack of a complete study of the Draper site ceramic vessels. As stated, the initial study of the rim sherds from the 1975 excavations produced fascinating insights into the Draper collection and the variations in these ceramics on different parts of the site. While much progress has been made in the four decades since Pearce's statement, I believe there are still many problems to be addressed with the Draper site rim sherd sample. The final analysis of the rim sherds was not completed in an acceptable manner and leaves many questions unanswered. It is unfortunate that the results of the handwritten report by R. Pihl on the complete sample of analyzable rim sherds contain significant errors yet the data in this report are now appearing in print (e.g., Birch et al. 2016).

What is needed, therefore, is a complete restudy of not only the collection of 16,753 rim sherds and 11,172 fragmentary rim sherds recorded in the catalogue from the 1975 and 1978 excavations, but also the 598 rim sherds from the 1972 excavations (Ramsden 1973, 4) and the 616 rim sherds from the 1973 excavations (Arthurs 1979, 64). This would also include the study of the 1,039 castellations from the 1975 and 1978 excavations which have not been subject to analysis and the 51 and 98 from the 1972 and 1973 excavations (Ramsden 1973, 38; Arthurs 1979, 65). Such a study would have to consider the extent of those portions of Houses 1 and 2 not contaminated by midden deposits at the bases of earlier palisades and would provide important data on these two houses which were significant structures in Segments C and E of the village. The study should also include the 816 rim sherds and unknown number of castellations from the initial excavations at Draper (James V. Wright 1966, 148; Donaldson 1962).

The 11,172 fragmentary rim sherds from the 1975 and 1978 excavations need to be integrated into the study of the rim sherds because of the probability of increasing the sample of analyzable rim sherds, especially from those houses and middens with a marginal number of rim sherds from the standpoint of being a representative sample. It is important to remember that the 1975 and 1978 excavations used mechanical screens and water-screening with water from pumps which probably resulted in a higher rate of breakage of ceramics than the use of hand-operated screens generally used today. Such an exercise might result in sherds being reassembled to create analyzable rim sherds from one or more fragmentary rim sherds and to trace patterns of disposal within the village and between the Main Village, the South Field, and Structure 42 in a manner demonstrated by Von Gernet in his study of the ceramic pipes. Also, mends of high collared rim sherds may provide a larger sample of these vessels which in turn could provide additional insights to lifeways of the Iroquoian occupants of Draper and the use of high collared vessels in alliance creation and maintenance.

Such a restudy of the rim sherds and castellations also needs to be done after devising a well-thought-out ceramic attribute code which reflects the specific research problems being investigated. This needs to take into account the experience gained in the existing study of the 1975 rim sherds which incorporated Peter Ramsden's knowledge gained in his study of 8,245 rim sherds from 28 sites for his Ph.D. dissertation (1977, 79–82). Further, it must consider insights gained from Ramsden's study of the Iroquoian occupation of the Kawartha Lakes region of south-central Ontario (Ramsden 1988a, b, 1990, 2006, 2009), Damkjar (1990), C. Ramsden (1989), Sutton (1990), and Patricia Reed's M.A. thesis (1990) with its definition of the Lake Ontario Iroquois. Such a study would record not only detailed attributes of the rim sherds and castellations but would also involve the typological analysis of those vessels which can be attributed to the St. Lawrence and New York State Iroquoians as proposed by Joyce M. Wright (2006). This study should also investigate the numbers of horizontal lines on collars and necks of collared, high collared, and collarless vessels as well as other matters reported by Joyce M. Wright (1999) and my study of the rim sherds from sites in the Crawford Lake area (Finlayson 1998b).

Among the goals of this restudy of the Draper rim sherds and castellations would be to isolate attributes which can hopefully be used to identify the origins of those villages which joined Draper as well as attempting to further explore the presence of clan segments within the Core Village and Segments E and F of the site. Here, my

experience in studying the high collared vessels from contemporaneous villages, some of which had moved into the Crawford Lake area, is instructive. I was able to identify high collared vessels from the Middleport, Crawford Lake locality sites which had an average of 10.8 horizontal trailed lines on high collared vessels (Finlayson 1998b, 265) compared to the contemporaneous Mountsberg locality sites which had an average of 7.8 horizontal trailed lines on the high collars (*ibid.*, 302) and in the Kelso locality 8.2 lines (*ibid.*, 350). In identifying these distinctive patterns of decorations of high collars, it was possible to identify different communities occupying the Crawford Lake region. The process involved in recognizing these patterns required a more in-depth study of the ceramic vessels than is usually undertaken. The typical approach used by others was to generate by computer, the frequencies of different attributes and to undertake an interpretation of the dataset directly. At Crawford Lake I identified the pattern of relatively large numbers of high collared vessels on the Middleport sites and then reexamined all high collared vessels. This involved setting out all the high collared rim sherds on a large laboratory table and submitting them to detailed visual inspection. This allowed me to identify patterns which had not previously been observed by a more traditional attribute analysis of many of the sherds (see Smith 1997). This included variations in the number and thickness of the horizontal trailed lines on the high collars. The big question is whether such patterns exist on the ceramic vessels of Late Ontario Iroquois stage sites such as Draper, its antecedents on Duffin Creek (such as Pugh), and on sites further afield which might have contributed villages or village segments to one or more expansions of Draper. It is entirely possible that the patterns of community identity I discovered in the Crawford Lake area are not present on the Ontario Woodland Tradition ceramic vessels at Draper and related sites. Certainly, these patterns cannot be investigated with a typological analysis of the sherds from sites such as Spang (Birch et al. 2016a) or Mantle with its attribute descriptions by type which do not present data on potentially significant attributes defined by Ramsden more than 40 years ago.

In a similar fashion, the study of the other ceramics (castellations, miscellaneous ceramic objects, etc.) and all other categories of artifacts from the South Field and Structure 42 would provide vital information about the complete artifacts assemblages from these areas of the site and assist in understanding the occupation. This would also include a re-analysis of the large sample of pipe fragments based on the new knowledge gained about smoking and ceramic pipes over the last 30 plus years.

There is also the need to complete the analyses of the Draper site faunal remains. As noted, Tiina Burns reported on the identification of mammal bones from the first 40,000 catalogue numbers in the Draper catalogue. Another 19,582 bones were identified but were subject only to preliminary consideration since the data had not been proofed. These preliminary data were considered in Appendix A of her report, but the results of the two studies were not completely integrated. My recollection is that there should a computer printout of all this data now at the Canadian Museum of History in Hull. This printout could be scanned and the data recovered for error correction and final analysis since the original coding sheets for this data would be in the museum as well. The completion of the faunal analysis including the identification of the non-mammal bone would be a significant contribution to our knowledge of the site. Further work needs to be done in the quantities of bone found in houses versus middens and house floors versus pits under the floors. The initial studies conducted to date reveal significant differences of species such as deer in middens versus houses.

This study has provided further insights into a Neutral component at Draper as represented by House 45. The presence of slate pebble beads discussed by Pearce and subject to further study by Fox has indicated that these are of probable Neutral origin. A study of their distribution at Draper revealed that most are concentrated in the Core Village and Expansion E with only one found near one of the rows of palisades surrounding Segment F. This suggests that these items may have been exchanged by the incoming Neutrals with others in the Core Village and Segment E to facilitate their incorporation into the village. Further, almost all of these beads were complete and were found in middens. Does this suggest the disposal of these items in order to create a further demand for them thus further integrating members of the village? The presence of two modified deer phalanges, a double-mouth juvenile vessel, and foliate bifaces are also indicative of the presence of Neutral influences at Draper, undoubtedly a function of the presence of the Neutral inhabitants of House 45.

Our increasing knowledge of the occupation of Algonquian peoples in large parts of southern Ontario will continue to radically challenge and change our understanding of the Ontario Woodland Tradition occupation of this area. Data supporting this widespread Algonquian occupation includes the presence of Algonquian houses on Ontario Woodland Tradition villages in Huronia such as Molson (Lennox 2000) and Dunsmore (Robertson and Williamson 2003), something well documented in the historical literature. Further evidence has been presented by Fox and Garrad (2004)

who correct the cultural affiliation of sites such as Frank Bay (Ridley 1954) and Dougall (James V. Wright 1972). The discovery of the Algonquian Bradford East site (TLA 2016) provides new evidence about the settlement patterns and material culture not only of the Ontario Woodland Tradition occupation of the site, but its use sporadically since Paleo-Indian times.

The recognition of the possibility of Algonquian and other Indigenous community houses at Mantle (Birch and Williamson 2015a) and also Draper emphasizes the need to consider such possibilities elsewhere in south-central Ontario. Such studies must also address the possibility that early sites such as Eldorado (Kapches 1983) and Auda (Kapches 1987) are actually Algonquian sites and not Iroquoian as assumed by their excavators at a time when this was standard practice.

Of importance are the continuing efforts of the Williams Treaty First Nations to educate archaeologists and others about their agreements with the Huron-Wendat to move into Ontario to grow corn about A.D. 800 (Migizi 2018). These changes have also fostered discussions about our ability as archaeologists to address the issue of ethnicity of past populations in southern Ontario (Jackson 2018).

One of the results of this change in our perceptions is that we now need to explore the possible presence of Algonquians on Ontario Woodland Tradition sites such as Draper. As mentioned, this raises the question about whether Houses 23/32 and 30/34 might be Algonquian house structures. Accordingly, any future studies of Draper site artifacts and these structures will need to search for any artifacts or attributes of artifacts, particularly ceramics, which might indicate an Algonquian presence. My impression from the study of the ceramics from the Bradford East site suggested to me that there were differences but that these were not easy to quantify and should require specialized studies of paste and temper inclusions as well as much more detailed attributes.

Much has been learned about the Ontario Woodland Tradition occupation of West Duffin Creek. Yet, really, we know so little, and fail to appreciate the complexity of these occupations here and on adjacent drainages on the north shore of Lake Ontario. We certainly have good data for Miller, Draper, and Mantle, although further limited excavations at both sites might provide additional insights into their occupations. For Mantle, there is the question about the nature of the earthen ramp leading down the creek and valley bottom. Is this a natural feature or a feature in part created by the Iroquoian occupants of the site? For Draper, the question is whether the gully within the village was altered to facilitate access to the creek beside the site. Such

investigations might lead to further insights into large-scale construction projects required for the occupation of these villages. Further, there should be investigations of the slopes adjacent to Segment D of the Draper site to see if there are hillside middens which we did not search for in our excavations. The valley bottoms adjacent to both sites should also be explored for evidence of use of these areas in proximity to the villages.

More importantly, the data on Spang as a Coalescent Village probably occupied by some of the Draper occupants before some moved on to Mantle remains extremely limited. Recent attempts to further investigate Spang through the use of soil chemistry tests and geophysical prospection methods (e.g., Birch 2016b) may provide very limited information on the layout of this village, but this volume has demonstrated the need to have detailed excavation information of settlement features such as sweat lodges defined by circular clusters of post moulds in the central corridors of longhouses. When the presence of such features was not recognized by the principal investigators at the completely excavated Mantle site, what hope is there that these would be found by soil tests or geophysical methods? What is needed is the excavation of a series of systematic test trenches across the plough disturbed portion of the Spang site which are at least 5 m wide and spaced at 10 or 20 intervals. This would begin to provide insights into the occupation of this important site. A similar approach would be necessary to assess the Pugh site and whether it was a small village with outlying cabins as suggested or a large site as originally suggested by Poulton and Timmins. Surveys should also be undertaken to search for the sites reported by Andrew Hunter.

Similar investigations would also be needed at Gostick and Best to assess their place in the occupation of West Duffin Creek and their relationships to Pugh, Draper, Spang, and Mantle.

With regard to the White site, there needs to be a detailed floral and faunal analysis of the data collected by Grant Tripp between 1974 and 1976 and further studies of selected artifact categories not reported by Tripp such as miscellaneous ceramic objects. As noted, the extremely large numbers of rim sherds in one house indicates a need to map the distributions of artifacts in the living floors excavated by Tripp. Also relevant to our knowledge of this cluster of seasonally occupied hamlets/satellites there should be test excavations at the Carruthers site.

The conclusion of this study that the Draper-Spang-Mantle sequence of Frontier Coalescent Villages, which is, in part, the end product of the development of Pickering-Uren-Middleport-Black Creek Realignment sites on Duffin Creek over a period of more

than seven centuries, are not Huron-Wendat. They are not part of the Huron-Wendat Confederacy sites in their well-known territory in what is today Simcoe County. This should have a significant impact on the ability to explore those sites which are located on federal and provincial lands.

Beyond the known sites on West Duffin Creek, we have to understand that there are areas within both the Pickering Airport Lands and Seaton Lands which have not been subject to archaeological assessment, particularly the intermediate terraces of the Duffin Creek valley, the potential location of sites such as White, areas not typically subject to CRM survey since they are not to be developed.

As I have noted elsewhere (Finlayson 2018), there will likely be increasing reluctance to undertake or allow archaeological survey of such private land holdings given the negative impact on property values.

The very significant revision of the dates for the occupation of the Draper-Spang-Mantle sequence of village relocations (+/- A.D. 530–1615) (Manning et al. 2018, 7) needs to be confirmed by additional dates from these sites, including multiple dates from each of the different segments of the Draper site and from the earlier Pugh and the possibly later Best sites.

But what is most important is the acceptance of the reconsideration of the cultural affiliation of the Iroquoian peoples who occupied Duffin Creek. If the Mantle site is contemporaneous with Cahiaque and its occupants, then the only logical conclusion is that these Iroquoian occupants of Duffin Creek were not part of the Huron-Wendat Confederacy as defined by Heidenreich (1971, Map 17), Trigger (1976, Map 1), Warrick (2008, Figure 7.8), and Sioui (1999, Map A9), since the Huron-Wendat Confederacy of tribes were confined to a limited portion of what is today Simcoe County. One question is whether Draper can be, at least in part, a site to be included in the Lake Ontario Iroquois concept as defined by Reed (1990). There is also the question about what happened to this community of Iroquoians who occupied the Duffin Creek since about A.D. 800. Were they eradicated by the diseases which must have had significant effects on the Ontario Woodland Tradition populations of southern Ontario after the arrival of Europeans on the east coast of Canada in the late 15th and 16th centuries?

Our work at Draper, as well as at other Ontario Woodland Tradition sites on the Duffin Creek drainage, also brings to the fore the need for a major rethinking of the occupation of parts of southern Ontario before the arrival of the Iroquoians at sites such as Miller and the more elusive occupations of this area and those beyond by Algonquian peoples. The most interesting matter relating to existing data is the need

for further studies of the small sample of ceramic sherds from the Duffin Creek site using petrographic or other studies with comparisons to sherds from other sites within the drainage. The restudy of the entire Draper collection also needs to be cognizant of the likelihood of Algonquian and Neutral ceramics mixed in with the collection.

We must also discard our traditional preconceived notions, based on the last century of research into the Indigenous occupation of southern Ontario, that all the sites we investigate are Iroquoian and in south-central Ontario, ancestral Huron-Wendat. This is no longer acceptable as indicated by researchers such as Lennox (2000), Fox and Garrad (2004), Jackson (2018), Kapyrka (2017) and Migizi (2018).

While remarkable progress has been made in our understanding of the Indigenous occupation of the Duffin Creek drainage and adjacent parts of the north shore of Lake Ontario and beyond, we must acknowledge that most of the recent archaeological studies have been undertaken by private, for-profit archaeological consulting firms. The staff of these firms may have varying amounts of expertise in studying the material culture, settlement patterns, and other data of the Indigenous sites they must study in the operation of their companies.

It must be reiterated that there has been very limited archaeological field work, description and analysis, and rigorous interpretations of the artifactual and other data collected both in the Duffin Creek drainage and adjacent drainage systems which is problem-oriented research as was my research study of the Crawford Lake area. In that area as well as in the current study I note that I incorporated the results of work by various avocational archaeologists as well as an examination of collections of artifacts and data by CRM firms and agencies which agreed to share their data (Finlayson 1998b).

In considering the results of this study, it is now clear that referring to the occupants of the Bronte and Crawford Lake localities as proto-Huron-Wendat was incorrect. Going forward, the occupants of these two localities will be referred to as the Crawford Lake Iroquoians, and considered as yet another group of Iroquoians, who, like the Lake Ontario Iroquoians and those on Duffin Creek, cannot be considered as ancestral to the Huron-Wendat who occupied historic Huronia after about A.D. 1600.

There is the need for a very detailed comparative study of the non-Huron-Wendat occupations of Duffin Creek drainage with the similar occupation by non-Huron-Wendat of the Bronte and Crawford Lake localities. In the latter, 16 sequentially occupied villages have been documented in detail using relatively large samples and

analytical techniques such as seriation charts and Coefficients of Similarity tables, something lacking from comparable sites on the Duffin Creek with the exception of the studies of Draper and White site rim sherds (Pearce 1978; Tripp 1976) completed more than 40 years ago. The investigation of the various matters raised in this chapter will provide yet further insights into the occupation of the non-Huron-Wendat Iroquoians and their Algonquian neighbours during the Ontario Woodland Tradition period.

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Appendices

These appendices present selective data used in this study which are supplementary to the information presented in the main body of the text. These provide additional information about these topics. Further information can be obtained in the original publications (e.g., Finlayson 1985) or in the licence reports that are available from the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries. The presentation of this information here is an attempt to optimize the key content of the main body of the text.

Appendix A

Previous Excavations at the Draper Site

This section of the appendices summarizes the previous excavations at the Draper site in 1953, the 1960s, 1972, and 1973.

A.1 The 1953 Excavations

The Ontario Archaeological Society conducted excavations at the Draper site in 1953. About 233 sq m were excavated in midden deposits on the site (Donaldson 1962). The results of these excavations at Draper were used by James V. Wright in his monograph, *The Ontario Iroquois Tradition* (1966), to assist in the definition of the Southern Division of the Huron-Petun branch of the Late Ontario Iroquois Stage of the Ontario Iroquois Tradition (1966, 68–72). James V. Wright notes that Draper was seven acres (2.8 ha) in size (*ibid.*, 69). Ceramic comparisons suggested it was closest to Doncaster and Black Creek (*ibid.*, 71). His ceramic data indicates that 3.0% of the ceramics were Lalonde High Collared (*ibid.*, 148).

A.2 Excavations in the Early 1960s

Peter Ramsden returned to the Draper Site in the 1960s to undertake excavations to be used for his master's degree thesis. While there is a probable typographical error in his estimate of the size of Draper, it would appear that Draper was 5.7 acres in extent (Ramsden 1968, 2). He conducted limited test excavations with units ranging from 1.5 to 5 feet square (0.2 to 2.3 m square) in size. This involved excavations in 16 middens and two non-midden areas to look for house patterns (Ramsden 1968, 10). The ceramics analysis indicated that 1.4% of the rim sherds were Lalonde High Collared (*ibid.*, 59). His graph of collar heights suggests that other ceramic types had high collars which he defined as being higher than 33 mm (*ibid.*, 54). Ramsden's excavations produced 15 pieces of human bone representing the remains of four different individuals. Three of these pieces had modified edges which may be parts of skull cap gorgets or rattles. One piece of skull exhibited "a very small roughened ridge of bone.

Below this, the bone surface is compact and shiny, while above it the bone is minutely pitted” (ibid., 119). Ramsden suggests that “the ridge of bone may represent a healed scalping wound” (ibid.), an interpretation supported by Professor James Anderson of McMaster University. Other human bone fragments suggest the presence of ritual cannibalism as posited by James V. Wright (1966, 83) (ibid., 120). Ramsden also provides the first faunal analysis for Draper with white-tailed deer being most common (36.7%) of all bones found (ibid., 122). Floral remains recovered included corn, squash, and a possible cherry pit (ibid., 123).

Ramsden’s ceramic analyses indicated varying degrees of closeness with nearby groups. This might imply that the clan organization documented for the historic Huron-Wendat may have been present at Draper. He also notes trading relationships with the Neutral-Erie and Onondaga and contact with the Mohawk and Seneca (ibid., 125). The recovery of two Archaic projectile points is interpreted as possible “protective or hunting charms” (ibid., 125). A date of A.D. 1450 to 1500 was postulated for the occupation of the site (ibid., 126). Ramsden observed that Draper was one of the sites which probably gave rise to historic Huron-Wendat sites in Huronia such as Cahiague (ibid.).

A.3 The 1972 Salvage Excavations (Figure 2.1)

Salvage excavations at the Draper site were initiated after it was learned that the site would be destroyed by the proposed construction of a New Toronto International Airport in Pickering. The 1972 excavations were completed under the auspices of the Ontario Archaeological Society and were directed by Marti Latta, a graduate student in the Department of Anthropology at the University of Toronto. These excavations resulted in the investigation of about 546 sq m (5,875 sq. ft.) of the site (Figure 2.1). Much of one house was excavated and parts of others found while excavating middens on the site.

There were problems with this excavation including “the loss of most of the 1972 field notes” (Ramsden 1973, 1). It is important to mention that, based on the 1975 and 1978 salvage excavations, House 1 was found to be part of Expansion 2 of the Draper site Core Village, while the midden excavated to the east of the house was probably created by the occupants of House 1 and of House 16, a part of Expansion 1 of the Core Village. Of most importance is the report on the excavations prepared by Peter Ramsden in which he notes “that there may be significant spatial distributions of

certain pottery types within the site and this possibility warrants re-checking the two previously analysed collections and extracting the relevant data” (Ramsden 1973, 10).

Ramsden also summarizes the faunal remains recovered from the excavations identified primarily by Jim Burns. Ramsden notes that there was “a strong dependence on the hunting of large mammals, and a lesser emphasis on fishing” (ibid., 19). Corn and beans were recovered as were plum seeds (ibid., 46).

A.4 The 1973 Salvage Excavations (Figure 2.1)

The 1973 excavations were also organized by the Ontario Archaeological Society and conducted by Brian Hayden, another graduate student in the Department of Anthropology at the University of Toronto (Figure 2.1).

Hayden’s work focused on the investigation of settlement patterns which involved the use of a theoretical framework. He argued that without a theoretical framework the archaeologist may collect data which are of no use and fail to collect data which could be used in reconstructions and investigation of cultural processes. “In digging sites blindly, one may well destroy a site for minimal results in the name of ‘saving’ it” (Hayden 1979, 6).

Hayden recognized that a small gully in the middle of the site might have divided it into two separate areas. Accordingly, he started digging to the south of this ravine and dug about two thirds of the first house he encountered. Hayden’s strategy for excavating the site was based on the assumption that this very large site had been occupied all at the same time. His work involved the excavation of 50 cm squares in 3 cm levels which, more than 40 years later, remain the most detailed excavation methods ever used to dig an Iroquoian longhouse.

Unfortunately, Hayden selected a house for excavation which had been constructed on top of a set of palisades which surrounded part of the original village in an area where garbage had been disposed of by dumping it at the base of these palisades (subsequently dismantled to allow for an expansion of the village). Thus, a large part of the information that Hayden collected involved a pattern of garbage disposal which was not recognized. Hayden analysed his data in two m squares, not the 50 cm squares originally excavated (Finlayson 1985, 31–34), probably a function of the lack of sophisticated computer mapping programs which are available today.

It is important to note that Hayden (1982) is correct that his excavations of House 2 in the areas beyond those contaminated by midden deposits at the base of the

palisades surrounding the Core Village did show evidence for activity areas. A detailed reconsideration of Hayden's data is beyond the scope of this study.

As previously mentioned, Hayden was the first to use the term Coalescent Village to describe the Draper site (Hayden 1979, 8). What is perhaps most surprising is that there have been no attempts to adopt and refine the strategy and methods developed by Hayden in 1973 in the study of any other Ontario Iroquoian villages.

Alexander von Gernet, in his editorial comment to *Ontario Archaeology No 60: Revisiting Sites and Meals*, comments further on Hayden's 1972 excavations and compares them to my own. He queries:

I sometimes wonder what would have happened if our understanding of the Draper site (AlGt-2) had depended solely on the results of limited investigations conducted in 1953 by the OAS, in the 1960s by Peter Ramsden, in 1972 by Marti Latta or in 1973 by Brian Hayden, rather than on the extensive excavations directed by Bill Finlayson in 1975 and 1978. A comparison between the 1973 and 1975/1978 excavation is particularly instructive. By now, most have probably forgotten Hayden's (1979:25) pardonable identification of a set of palisade posts as part of a latrine; after all, he has left Ontario to make valuable contributions in other parts of North America. Yet, his 1973 excavations serve as a lingering reminder of how overly ambitious analyses of limited data and premature conclusions can prove to be embarrassingly erroneous. Finlayson (1985:31-34) who attributed Hayden's failures to flaws in the problem-oriented approach to the New Archeology, accumulated enough new evidence to confidently declare that all of Hayden's interpretations were invalid. Similarly, my analysis of the over 4,000 pipe fragments recovered during the 1975/78 excavations demonstrated that David Arthurs' (1979:81-89) conclusion about the 55 fragments retrieved during the 1973 investigations were entirely unfounded (1995, 1).

Appendix B

Selected Aspects of the 1975 and 1978 Excavations at the Draper Site

The excavations at the Draper site were unique in Ontario archaeology in that we scheduled the 1975 field work after having more than a year to prepare. We knew that given the large size of the site, vast quantities of catalogue and settlement pattern data, artifacts, and ecofacts could be recovered. Accordingly, we developed, probably for the first time in Canadian archaeology, a custom set of computer programs for processing of artifact catalogues and the mapping of settlement pattern data. We also developed a set of computer-based codes for the generation of descriptive and analytical statistics using the Statistical Package for the Social Sciences (Nie et al. 1970). Plans were also made for a field laboratory and facilities to house and feed crews of 40 to 60 individuals. A summary of these more esoteric aspects of the investigations, are presented here.

B.1 Getting Ready for the 1975 Rescue Excavations

When I was contacted by James V. Wright about undertaking the excavations at Draper, he indicated that the National Museum of Man was not pleased with the results of the 1972 and 1973 excavations at the site. He made it very clear to me that the museum wanted the complete excavation of Draper and would provide the funds, through Transport Canada, to do the job. Thus, in accepting the job, I knew that we would have to dig at least two dozen longhouses and more than a dozen middens based on previous work at the site. Peter Ramsden agreed to join me as co-director of the 1975 excavations.

In planning the excavations at the Draper site, I considered these to be rescue excavations, not salvage excavations. In making this distinction, I believed that our excavations at Draper could be undertaken in ways that allowed us to collect, describe, and analyse data beyond a simple salvage excavation. Salvage excavations in Ontario had been undertaken since Emerson's work at the Middle Woodland Ault Park site

(1956, 1958) during the construction of the St. Lawrence Seaway and had more recently been undertaken on two Ontario Woodland Tradition sites, specifically the Nodwell site by James V. Wright (1974) and by me early in 1975 at the Unick site (Finlayson 1998b, 84). These excavations were undertaken in advance of the imminent destruction of these sites (or part of the site in the case of the Unick site) and had been disturbed by farm activities which had minimized the presence of undisturbed deposits of middens and living floors of longhouses and adjacent areas within the site. These salvage excavations were relatively simple, involving the stripping of the plough zone and the recording of the generally undisturbed features in the subsoil. Budgets for work at Nodwell and Unick were limited.

At Nodwell, James V. Wright produced the very detailed study of an Ontario Woodland Tradition (Middleport Iroquoian) village (1974) at the beginning of the modern era of salvage excavations which have proliferated in subsequent years.

In 1974, as we planned the Draper site excavations, our artifact catalogues were being written out by hand, and if resources were available these were then copied by typewriter to produce a more readable and permanent copy. Since I expected the Draper site excavations would produce several hundred thousand artifacts, it was clear that this process had to be computerized.

Also, in 1974, computer processing of the description and analysis of artifacts recovered was in its infancy. Using computerized processing, Professor Norman Wagner had published his study of ceramics from the Moyer site, a precontact Neutral village near Waterloo (Wagner et al. 1973). My own study of ceramics from the Middle Woodland Donaldson, Thede, and Inverhuron sites had, for the first time in Ontario archaeology, used the Statistical Package for the Social Sciences (SPSS) (Nie, Bent, and Hull 1970) to describe and tabulate extremely detailed data about these ceramic collections of 523 vessels comprised of 2,768 sherds (Finlayson 1977). More than 40 years later, this remains one of the most detailed studies of Middle Woodland ceramics ever undertaken.

Therefore, in anticipation of the 1975 rescue excavations at Draper, we decided to develop computer-based methods for mapping and analysis of settlement pattern data, for processing and listing of artifact catalogues, and for the description and analysis of the various different categories of artifacts. The latter included rim sherds, castellations, juvenile vessels, miscellaneous ceramic artifacts, ceramic pipes, chipped stone tools, ground and rough stone tools, bone, antler and shell artifacts, and floral and faunal remains. In doing this, my previous experience with the ceramics for my

Ph.D. dissertation was invaluable. Peter Ramsden, who served as co-director in 1975, had extensive experience with Huron-Wendat ceramics and thus played an important role in the development of the code for recording the Draper site ceramics prior to the initiation of excavations. We were also fortunate to have access to the Social Science Computing Laboratory in the Faculty of Social Science at The University of Western Ontario which had been established to assist academics such as myself in developing such computer-based systems.

Accordingly, we pioneered a comprehensive set of computer applications to be used in the investigation of Ontario Woodland Tradition archaeological sites. This included a customized program for processing catalogue data and another program to produce maps of the houses, palisades, and units of excavations. We used SPSS to describe and analyse most categories of data needed for our publications. A more detailed description of these computer-based procedures and the results are presented briefly below.

Fast forward several decades, we now have at our disposal very advanced, easy-to-use technology (relatively speaking) which greatly facilitates the excavation, recording, description, analysis, and reporting of our data from archaeological projects. In the field we have gradalls which remove the topsoil from sites with greater accuracy and which usually leave the subsoil surface relatively smooth, thus reducing the need for further exposure of features in the subsoil by hand using a shovel-shining technique. We have D-GPS units which are accurate to less than a cm, removing the need to record features in the subsoil by measuring the distance from two corners of a 5 m square, a technique called triangulation. From the GPS units, the data can be downloaded to a mapping program such as ArcGIS and preliminary maps can be produced in minutes by computer. These maps can be printed on colour printers and scaled using the Mapbook feature in ArcGIS to produce detailed close-up plans showing information such as feature numbers (e.g., TLA 2017, 39–41). We have Version 23 of SPSS which operates on personal computers and which provides an easy-to-use program for the description and analysis of artifact data. And finally, I have access to a Windows-based mapping program which plots the distribution of artifacts in 1 x 1 m squares from the Draper site in seconds.

We recognized that the Draper site was different due to the large area of the site which had not been disturbed by ploughing. We were also aware of relatively recent research by Allen Tyyska at the Maurice (BeHa-2) and Robitaille (BeHa-3) sites where his detailed excavations of one longhouse at each site had revealed “three artifact

distribution levels in each house” (Tyyska 1969, 77). We also had reports on the 1972 excavations by Latta (Ramsden 1973) and the 1973 excavations by Hayden (1973, 1975). As a result, we were able to plan the excavation of some undisturbed houses in 1 x 1 m squares and others in 2.5 x 2.5 m quadrants. While this did not compare to the detailed studies undertaken by Tyyska and Hayden, it did provide large quantities of information on the nature and distribution of artifacts in undisturbed houses. Further, given the significant levels of funding for the work at Draper, we were able to plan a variety of specialized studies including soils investigations by two students, Frazer Mark (1983) and Ann Bohdanowicz (1978a, b), the processing of several thousand flotation samples by Charlies Turton and a study of some of these (Fecteau 1978a, b), and the identification of more than half of the mammal remains recovered by Jim Burns and their reporting by Tiina Burns (1979). Collectively, these additional studies would mark a major advance in the collection of information compared to earlier salvage excavations such as those at Nodwell and set the stage for the large number of salvage excavations which have been conducted in southern Ontario over the past 40 years where, unfortunately, the emphasis has been largely on the removal of plough zone by power equipment with limited attempts to recover artifacts from plough-disturbed deposits. A significant exception was my 1985 and 1988 salvage excavations at the Keffer site (Finlayson et al. 1986, 1988).

We spent 1974 and the first few months of 1975 developing these procedures and computer programs for dealing with the massive quantities of artifacts and data which would be generated by the complete excavations of the site.

In undertaking this preparatory work, we were extremely fortunate to have access to the Social Sciences Computing Laboratory which had been established to assist scholars in adapting to the new and ever-changing computer technologies for social science research.

A program for processing artifact catalogues (DRAPER) was developed with the help of Don Teare of the Computing Lab. We designed a catalogue form which was to be filled out by the cataloguers in our field laboratory using a set of guidelines. This custom-printed form was printed as two pages, with the second creating a copy of the first without using a sheet of carbon paper in between to create the copy. We also prepared a form which assigned ranges of catalogue numbers to the different catalogues so that duplicate numbers were not assigned. Once a batch of catalogue forms had been filled out, we shipped these to our lab at the university where the data

were entered directly into a PDP10 time-sharing computer and stored on disk. In 1978, data were transferred to key punch cards for entry into the computer, since a new computer was being installed. In 1978 we took two key punch machines into the field laboratory and had the data key punched daily. These data were transferred to a Cyber batch-processing computer and with the help of another custom-designed program (ARCMAN), were integrated with the settlement pattern data.

A second program (ARCMAN) was created by Stanley Lopata of the Computing Lab to handle settlement pattern data—pits, hearth floors, etc., post moulds, and edges of excavations. This program was field-tested in 1974 when I taught a small field methods class to students in a reading course in the Department of Anthropology at The University of Western Ontario. We excavated the southern half of House 2 at the Crawford Lake site (Finlayson 1975b).

In the field, settlement pattern data were recorded for each 5 x 5 m square on one of four forms:

- a post mould form;
- two feature record forms; and
- a post and pit summary form.

These forms were transferred to our field laboratory where they were checked for accuracy. In 1975 the data on these forms were transferred to a set of colour-coded pencil-marked computer cards. In 1978 we took two key punch machines into our field office and entered the data directly onto key punch cards. The computer cards were shipped back to our lab at the university and used to create a master file. This file was used by ARCMAN:

- to check for errors;
- to generate line printer plots to allow data checking and composite plots of adjacent squares such as one longhouse or one segment of the village (Figure 2.5);
- to create plots of individual houses or segments of the village (Figure 2.6);
- to create a data file which could be used by SPSS to generate statistics such as the range and mean diameter of posts or the range and mean length of hearth floors;
- to generate cross-tabulations of data such as the plan versus profiles of pits;
- to generate intra- and inter-site comparative data such as coefficients of similarity;

- to create plots of artifact distributions as well as other studies (Figure 2.7); and
- to allow the studies of sampling procedures.

A more detailed description of the capabilities is present in a number of manuscripts on file at the Canadian Museum of History (Finlayson 1975c, 1976 d, e).

B.2 Facilities for the Excavations at the Draper Site

In order to achieve our objectives, we hired large crews in both 1975 and 1978. At one point we had more than 60 people working on the excavations. We were fortunate in that there were some unoccupied buildings on the airport property, and we were able to access some of these for the accommodation of our field lab and facilities for our large field crews.

In 1975 we used the Glasgow School for our field office and labs. One classroom was used for cataloguing artifacts (Plate 2.1) which had been cleaned outside using a commercial pressure washer. The other classroom was used for completing the pencil marked computer cards and as a dining hall. The staff room for the teachers and the utility room were converted to a kitchen and we hired a cook and a cook's assistant to feed our crews. The janitor's closet became a darkroom. The boys' and girls' washrooms were used by the staff and an outdoor shower facility was built beside the school. In 1975 some crew pitched their tents on the school grounds while others camped around an abandoned house which was largely unusable due to a fire.

In 1975, when planning the excavations, we discovered that The University of Western Ontario maintained a surplus equipment warehouse from which we could get tables, chairs, and other office and laboratory equipment for the cost of transporting it to our field headquarters. Most valuable to us were 12-foot library tables which were excellent as laboratory tables and dining hall tables.

In 1978 we also had use of the Glasgow School (Plate 2.1), as well as a wonderful heritage home which was no longer occupied. Senior staff lived in the latter, and the two key punch machines were placed here too (Plate 2.1).

B.3 The Crews

In 1975, initially, our crew comprised of 41 full-time individuals and one part-time person. Part way through the summer, when it was discovered that the site was larger than previously thought, additional funding was acquired, and additional staff hired,

bringing the crew size to 61 full time and one part time. A reduced crew of 8 to 10 individuals continued excavations after most students returned to school in late August. Excavations stopped for the year in December.

In 1978 the crew comprised 51 to 55 individuals. For two weeks during the summer, about 20 volunteers from the National Museum of Man joined the excavations to get experience in archaeological field work. In addition, I taught, with the help of an assistant, an eight-week field school at Draper for Anthropology, Erindale College, University of Toronto. Students completed the excavation of House 15 and participated in the excavation of Midden 79.

Appendix C

Original Interpretations of the Expansion of the Draper Site

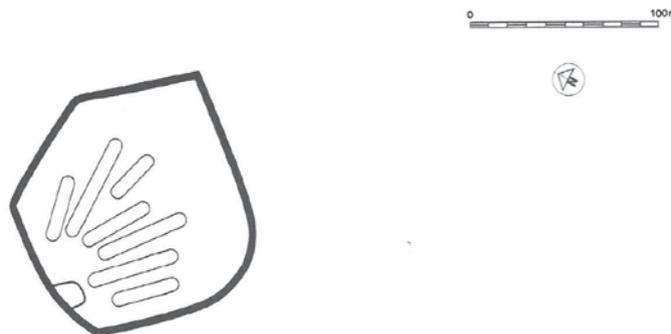
In my 1985 publication, I presented a proposed sequence of expansion of the Draper site based on settlement pattern data. This is summarized below. Additional information is available from that study (Finlayson 1985). A more up-to-date interpretation is presented in the main body of this study, *The Draper Site, An Ontario Woodland Tradition Frontier Coalescent Village: Looking Back, Moving Forward*.

C.1 The Expansions of the Draper Site—The Original Interpretation

As noted in the main body of the text in my 1985 study of settlement patterns, I proposed an explanation on the sequence of expansions of the Draper Main Village. This was based on settlement data including densities of wall post moulds, pits, sweat baths, etc. It did not include a consideration of artifact data.

C.1.1 Core Village

Figure C.1: Core Village (from Finlayson 1985, 422)



Segment A is the original Core Village which was initially comprised of at least eight houses. It occupied an area of 1.19 ha and had an estimated population of at least 396 people (*ibid.*, 422). The village was surrounded by four rows of palisades and had galleries or catwalks on two sides of the palisades to provide for the defense of the village (Figure C.1). The interpretation of these features as galleries or catwalks is based on historical accounts for such features attached to the inside of palisades of historic Huron sites (e.g., Heidenreich 1970, 139). This Core Village was situated up to 30 m southwest of the break in slope, thus providing an open area which had to be crossed by attackers. In the southeast and northwest parts of the village, the houses were placed well back from the palisades.

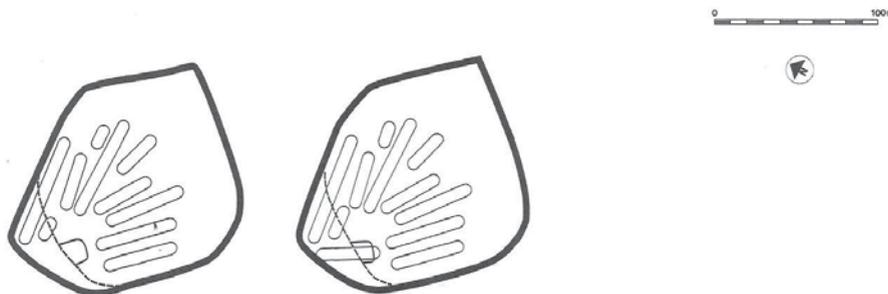
I have also noted that there are two orientations of houses which cluster together (#4, 6, 12, and 29 versus 9, 10, 11, and 24) and interpret these as evidence for two clan segments occupying Segment A, and that each originally had one very long longhouse which I considered chiefs' houses. These were the widest houses in the entire village. It is interesting to note that in the Core Village, these chiefs' houses were situated near the centre of the village. In later expansions these houses were situated along the outer edges of the village to assist in its defenses and House 4 was ultimately extended three times to make it a very long structure which aided in village defenses. These two clusters of houses, based on orientation, had estimated populations of 228 and 168 people, respectively.

Abutting the northwest segment of palisades there was a rectangular structure which I interpreted as a structure to house visitors to the village.

The area per person was 30.0 sq m and the area of the village devoted to housing was 20.1% (*ibid.*, 423).

C.1.2 Expansion 1

Figure C.2: Expansion 1 (from Finlayson 1985, 423)

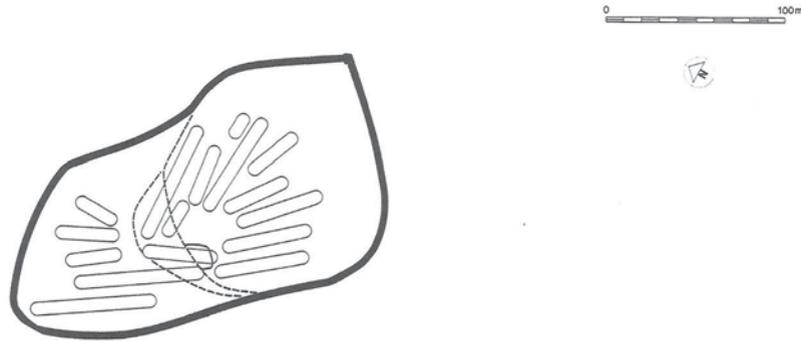


This expansion added Segment C to the Core Village (Figure C.2). During the village occupation this involved:

- the removal of 80 m of four rows of palisades at the west end of the village;
- the removal of the visitor's structure and one set of look-out platforms southwest of House 3;
- the construction of three rows of palisades up to 26 m outside the original village;
- the addition of 0.12 ha of new space within the village bringing its total size to 1.31 ha;
- the construction of one very long longhouse (#1), perhaps a chief's house, very close and parallel to the palisades along the northwest side of the village. This is interpreted as a change from previous strategies used in the construction of the village to this placing long longhouses at the outer edges of the village to assist in its defense by creating very lengthy, easily defended corridors between these houses and the palisades;
- the addition of two more new houses (#15 and 3), one of which (#3) abutted the palisades and helped define a plaza, access to which was limited by the defensive placement of the houses. All three houses (#1, 3, and 15) were constructed over the palisades surrounding the Core Village and House 3 was constructed over the special structure attached to the palisades surrounding the Core Village;
- the extension of the northwestern end of House 4 to reduce the distance between it and House 3. This also utilized the new strategy for placing the longest houses on the outer edges of the village; and
- the addition of 180 people to increase the total estimated population to 504 people; the area per person within the village decreased to 25.9 sq m, and the area devoted to housing increased to 23.1% (ibid., 423–425).

C.1.3 Expansion 2

Figure C.3: Expansion 2 (from Finlayson 1985, 425)

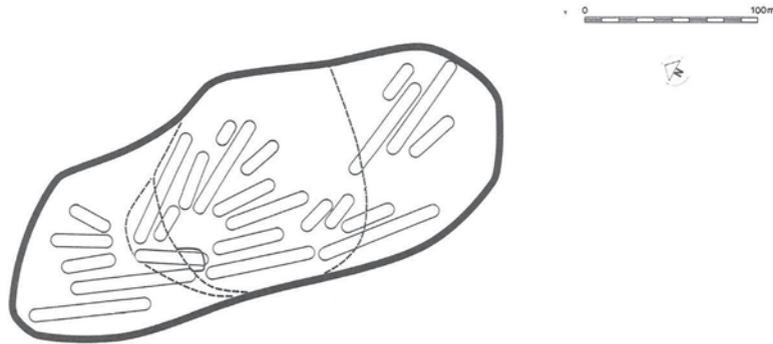


Expansion 2 added Segment D to the Village (Figure C.3). This involved:

- the dismantling of about 75 m of palisades of Segment A and all of the palisades of Segment C and the building of about 320 m of three rows of palisades at a distance of up to 60 m outside the palisades of Segment C;
- the addition of 0.77 ha of space enclosed by palisades, increasing the size of the village to 2.85 ha;
- the new rows of palisades were set back from the break in slope at the northeastern end of the village and abutted the break in slope for about 50 m before joining the palisades surrounding the original Core Village;
- the placement of two very long longhouses (#8 and 25), chiefs' houses, parallel to the palisades along the southeastern side of the village. This continued the new strategy of placing the longhouses to assist in village defenses;
- the addition of three houses (#7, 41, and 38) to create a plaza also enclosed by Houses 1 and 3. There was also a large open area between Houses 38 and 1;
- the creation of an entrance to the village at its new northeast corner; and
- the addition of an estimated 324 individuals to bring the total estimated village population to 828 individuals; the area per person decreased to 25.1 sq m; the area devoted to housing increased to 23.3% (ibid., 425, 426).

C.1.4 Expansion 3

Figure C.4: Expansion 3 (from Finlayson 1985, 427)



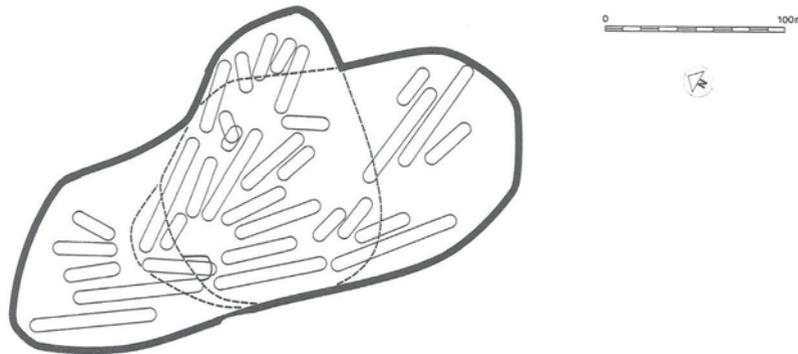
Expansion 3 resulted from the addition of Segment E to the Village (Figure C.4). This involved:

- dismantling about 130 m of four rows of palisades which surrounded the southeast portion of the original Core Village and the construction of about 320 m of three rows of palisades at a distance of up to 77 m beyond its original location; it is not known whether the new palisades crossed the small ravine located near the middle of the site or whether it followed the edge of the ravine parallel to House 2. The northeastern edge of these rows of palisades probably paralleled the break in slope along the eastern edge of the site, although parts of these rows had been destroyed by the creation of a borrow pit to provide fill for the construction of the railroad in the 19th century;
- the addition of 0.77 ha of space to the village, bringing its total size to 2.85 ha;
- the construction of House 5, a very long longhouse, probably a chief's house paralleled the palisades at the southeastern edge of the village while two similar houses (#2 and 17) paralleled a small ravine to their north. The positioning of these houses indicates the continued use of houses to assist in village defenses as seen in other parts of the site by using the placement of this house to create another barrier to limit access to the interior of the village;
- the placement of six houses (#5, 13, 26, and 27) in this expansion and the extensions of Houses 4 and 6 in the Core Village) created a small plaza and also served to reduce access to this plaza by the narrow space between Houses 4 and 5;

- the creation of two clusters of houses with generally similar orientation. Four houses (#5, 13, 26, and 27) cluster in the southwestern part of this addition while six houses (#2, 14, 17, 26, 27, and 31) cluster in the northeastern part of the addition. I suggested that these represent two different clan segments within this part of the village. The houses were placed to create a large open area to the southeast;
- the addition of an estimated 408 individuals to the village bringing its total estimated minimum population to 1,236 individuals; the area per person decreased to 23.1 sq m; the area devoted to housing increased to 25.9% of the whole village; and
- the creation of a visitor's house (#22) adjacent to the palisades in a fashion similar to the in the Core Village (*ibid.*, 427–428).

C.1.5 Expansion 4

Figure C.5: Expansion 4 (from Finlayson 1985, 429)



Expansion 4 added Segment B to the village (Figure C.5). This involved:

- the removal of about 90 m of four rows of palisades along the northeastern edge of the Core Village and the construction of three rows of palisades adjacent to the break in slope in this area of the site;
- the addition of 0.18 ha of space to the village, bringing its total size to 3.31 ha;
- the placement of five new houses (#16 and 18–21) oriented such that the spaces between them were restricted and this placement created a plaza to the southwest. I suggested that two of these houses (#16 and 21) may have been

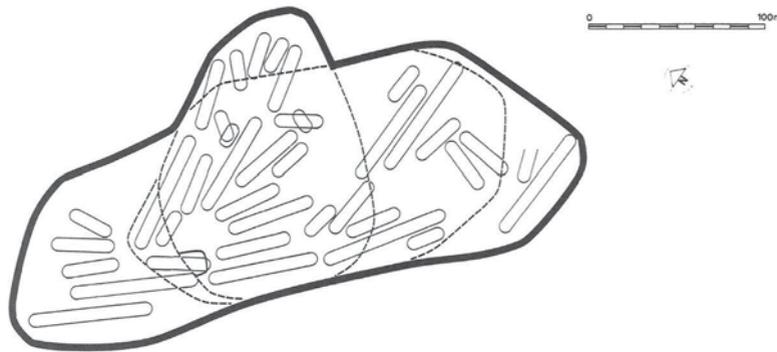
chiefs' houses although these were not as long as proposed chiefs' houses in other parts of the village; and

- the construction of House 30 and rebuilding of House 32. These two houses further reduced access to aforementioned plaza. Thus, once again, the placement of the houses served to assist the defense of the village.

The population of the village increased by an approximate 216 individuals resulting in a total estimated population of 1,464; the area per person within the expanded village decreased to 19.5 sq m; the area of the village devoted to housing increased to 29.3% of the entire village (ibid., 429–430).

C.1.6 Expansion 5

Figure C.6: Expansion 5 (from Finlayson 1985, 430)



Expansion 5 added Segment F to the Village (Figure C.6). This involved:

- the dismantling of about 220 m of the three rows of palisades around Expansion 4;
- the construction of about 280 m of four rows of palisades placed up to 42 m beyond the palisades of Expansion 3;
- the addition of 0.39 ha to the village resulting in a total size of 3.42 ha;
- the construction of at least four new houses within the palisaded village;
- the placement of one long longhouse (#45) parallel to the southern edge of the village to assist in village defenses; and
- the placement of three longhouses (#28, 35, and 43), an edge of one (#43) of which was destroyed by the borrow pit, to create a very large plaza in the southeastern part of the village. Unlike other expansions, there was a large

space between the two long longhouses (#5 and 45), but this segment of the village was protected by four rows of palisades similar to the original Core Village. There was evidence for catwalks to assist in village defenses along the southern and southeastern rows of palisades and there appears to have been an entrance to the village through the palisades.

While some houses had been destroyed by the borrow pit, I estimated that 312 people were added to the village at this time bringing the estimated population to 1764 individuals. I also noted that some houses had been expanded during the occupation of the village and that this may have added another 180 people to the village, bringing its total estimated population to 1944 individuals.

As was the case with other large expansions of the village, there were two orientations of houses, Houses 43 and 45 forming one group and Houses 28 and 35 and the two inferred houses forming the second group. The area per person was, at a maximum, 20.8 sq m and the area devoted to houses was perhaps 34.2% (*ibid.*, 430, 431).

Based on these expansions of the village, there are some interesting observations and trends in the village composition as it grew:

- as the village expanded, estimated minimum populations increased from 396 to 504 to 828 to 1,464 to 1,764 to 1,944 individuals;
- as the village grew, the village size expanded from 1.19 to 1.31 to 2.85 to 3.31 to 3.42 ha;
- originally, the two longest longhouses, interpreted as chiefs' houses, were placed near the centre of the village, while for all expansions these types of houses were placed adjacent and generally parallel to the palisades to assist in village defenses by creating long linear corridors between the houses and the palisades which could be easily defended by individuals armed with bows and arrows;
- houses were often placed to create central plazas, which often served as the locations of middens;
- houses were often placed, or extended, to provide narrow spaces between adjacent houses to again restrict access to central plazas;
- houses were sometimes placed to create large open spaces within the village;
- houses abutted the palisades in two locations (#3 and 45) to restrict movement within the village;

- the village was surrounded by palisades, originally four rows, then three rows for all the expansions except the last which again had four rows;
- two structures within the village were interpreted as visitor's structures within the village;
- as the village expanded, the area per person changed from 30.0 to 25.9 to 25.1 to 23.1 to 19.5 to 20.8 sq m excluding any consideration of houses destroyed by the borrow pit; and
- the area devoted to housing increased 20.1 to 23.1 to 23.3 to 25.9 to 29.3 to 34.2%, the latter number excluded the possibility of hypothetical houses destroyed by the borrow pit (*ibid.*, 430–431). These latter two changes probably related to escalating stresses due to the increased warfare which is the likely cause of the amalgamation of several villages to create the very large Draper site.

Appendix D

Pickering Substage Sites on Duffin Creek

In this Appendix and in Appendices E to G, summary data are presented on the sites on Duffin Creek which have been discovered and subject to various extents of preliminary investigation through culture resource management projects. The sections on Realignment substage villages and special purpose sites have been left in the main body of the text of this study since they contain important data on key sites which have undergone major investigations and are most relevant to the current discussions.

This review involves the early surveys and test excavations at the New Toronto International Airport funded by Transport Canada and managed by the Archaeological Survey of Canada, National Museum of Man, National Museum of Canada, which I oversaw between 1976 and 1979. It also involves work on the Seaton Lands managed by Infrastructure Ontario and its predecessors as well as projects funded by the private sector on these and adjacent lands. These studies are presented in these appendices to provide the reader with a selected summary of the work done. This work has, all in all, produced relatively small samples of artifacts, most of which are too limited to permit comparisons between other sites on the Duffin Creek drainage. The most notable exceptions of the studies since 1978 are test excavations at the Bolitho site by David Spittal (1978) and Mary Ambrose (1980) and the controlled surface survey at the Wilson Park site by Dana Poulton (DRPA 2006).

In presenting the data for each site I have lumped some categories of data together such as neck and shoulder sherds, body sherds, and fragmentary sherds into a single category. I have also excluded some categories such as faunal and floral remains since the numbers are generally not significant. The interested reader can get this information from the licence reports.

D.1 Pickering Substage Villages

There are six villages—Miller, Boys, Delancey, Bolitho, Winnifred, and Ginger, as well as Carleton and perhaps Decker's Hill which are reported to have been destroyed. Miller and Boys are discussed in the main body of the text in Section 4.1.

D.1.1 Delancey Pickering Substage Village (AIGs-101)

This site, Delancey, was investigated by David Spittal's *Urban Stage One Archaeological Survey* and was found to be severely disturbed by sand and gravel operations. The Stage 2 investigations involved the excavation of 50 positive test pits. This resulted in the recovery of "only 40 intact [analyzable] pottery sherds...in addition to several hundred destroyed crumbs and sherdlets and a small lithic and faunal sample" (Spittal 1978, 13) and suggested a Pickering site.

This site was also subject to test excavations in 1980 by Mary Ambrose (1980). These excavations explored 51 sq m of the site including one undisturbed midden and the recovery of 6,586 artifacts (Ambrose 1980, 16). Recovered were 6,586 artifacts including 29 rim sherds (*ibid.*, 17), three castellations (*ibid.*, 19), one pipe fragment, one miscellaneous ceramic object, 267 chipped lithic items including two scrapers, a biface, a projectile point base, 262 pieces of chipping detritus, and four fragments of celts. It was interpreted as a Pickering substage village (*ibid.*, 96). Site size is estimated as 0.5 ha in extent (Poulton 1994).

D.1.2 Bolitho Pickering Substage Village (AIGs-102)

This site, Bolitho, was also found by Spittal's 1978 survey and was test excavated by Ambrose (1980). The Stage 2 investigations involved the excavation of test pits across an area of about 0.5 ha of the site, much of which had been disturbed. The Stage 2 assessment recovered 177 artifacts: 158 pieces of pottery including three rim sherds, many fragmentary sherds, and 19 lithic artifacts (Spittal 1978, 16).

Subsequent Stage 3 test excavations by Ambrose investigated 80 sq m of the site (Poulton 1994, 24) and found evidence of a house structure the walls of which could not be delimited due to the sandy soil (*ibid.*, 33), a midden deposit, and several other features (Ambrose 1980, 5). A very large sample of artifacts was recovered comprising about 40,000 artifacts (Poulton 1994, 24) including 123 analysable rim sherds and 16 pipe fragments with the earliest evidence to date for a human effigy pipe. Lithics included six projectile points, two knives, 13 scrapers, 58 cores, and 1297 pieces of chipping detritus, eight celts, one anvil-hammer, five steatite pipes, and a steatite pendant. Chert source data was not tabulated but textual descriptions indicate that Onondaga chert consisted of about 85% of the assemblage with Balsam Lake chert and quartz comprising most of the remainder of the collection except for a single piece of Upper Mercer chert from Ohio (*ibid.*, 59). Among the bone artifact assemblage was a bone harpoon, a netting needle, two bone projectile points, and a turtle carapace

pottery marking tool (*ibid.*, 64–66). Faunal analysis indicated that “Small mammals, such as the squirrel family and the muskrat seemed to have been a popular food source. The incidence of deer is noticeably low and consists mainly of extremity bones suggesting preselection of animal parts after the kill, prior to bringing the game back to the village” *ibid.*, 68). Deer remains comprised only 4.9% of the bone identified.

The site has been interpreted as a Pickering substage village about 0.52 ha in size (Ambrose 1980, 31).

D.1.3 Winnifred Pickering Substage Village (AIGs-103)

This is another site, Winnifred, found by Spittal’s 1978 survey and tested by Ambrose in 1980. Spittal’s Stage 2 assessment involved a combination of visual survey and test pitting (Spittal 1978, 22). Poulton indicates a site size of 2 acres (0.8 ha) while Williamson suggests 0.5 ha (1990, 197). Spittal’s investigation resulted in the recovery of 719 pieces of pottery including 31 analysable rim sherds, 90 lithics, and 25 faunal remains (*ibid.*, 23). What is most important about Spittal’s investigations is that his ceramic analysis suggests that the occupation of the Winnifred site is later than Miller and earlier than Boys (*ibid.*, 35).

Excavations by Ambrose explored 46 sq m of the site, found several subsurface features, and recovered 416 artifacts including 10 analysable rim sherds and 45 lithics (*ibid.*, 77, 81).

D.1.4 Ginger Pickering Substage Village (AIGs-104)

This village site, Ginger, was also documented by Spittal. His investigations involved surface collecting the site and excavating 12 1 x 1 m squares, four in a midden and eight within the confines of the site (1978, 36). Much of the site has been destroyed by the Metro Sanitary Landfill and the CPR railway. The midden investigations recovered 2,450 pieces of pottery, 135 lithics artifacts, and 67 pieces of faunal material (*ibid.*, 38).

Most important was the recovery of 41 rim sherds and fragmentary rim sherds, the ceramic analysis of which indicated that 56% were dentate stamped. Comparisons to Miller, Winnifred, and Boys revealed declining occurrences of dentate stamping from 67% at Miller to 56% at Ginger to 40% at Winnifred and 29% at Boys (*ibid.*, 57). Spittal further suggests that his ceramic analysis combined with an A.D. 800 date for Miller and a A.D. 975 date for Boys that Ginger would date to A.D. 884 and Winnifred to A.D. 904 (*ibid.*, 57).

M.M. Dillon conducted test excavations on a portion of the Ginger site in 1993. Ten test pits produced a total of 36 pieces of ceramics (DRPA 1998, 3,4).

Dana Poulton returned to the Ginger site in 1997 and undertook a controlled surface survey of the site and dug 23 test pits which produced artifacts (DRPA 1998, 4). These investigations produced 218 artifacts including 32 analysable rim sherds, 119 other pieces of ceramic vessels, a fragment of a juvenile vessel, four chipped lithic pieces, a ground stone fragment, 16 faunal remains, and 43 pieces of human bone (*ibid.*). Poulton notes that his sample of ceramics was like that previously recovered by Spittal. Poulton's sample did not change the proposed ordering to the site proposed by Spittal noted above.

The early investigation of Pickering substage sites on Seaton Lands by Spittal resulted in the recovery of generally small rim sherds selected attributes of which were used in a novel way to generate estimated dates for Ginger and Winnifred utilizing known C14 dates for Miller, Boys, and Bennett. Spittal used the varying frequencies of occurrence of exterior decorative tool, lip, and interior decoration on rim sherds which were not all completely analysable for all three attributes in order to increase the sample size (Table 4.1). As indicated, his results suggested dates of A.D. 884 for Ginger and A.D. 904 for Winnifred (*ibid.*, 86). Ambrose continued Spittal's approach and estimated dates of A.D. 909 for Bolitho and A.D. 1073 for Delancey. The major problem with this approach was the size of the samples, with only Bolitho having 126 rim sherds and the rest having less than 50 analysable rim sherds. The rim sherd attribute data presented by Ambrose, which includes Spittal's data is presented in Table 4.1.

As will be seen further in Appendix D, what is most important to note is that there may have been a relocation of sites on the central branch of the Duffin Creek consisting of the movement of the occupants of the Miller site 1.3 km northwest to the Ginger site, then a further 1.0 km northwest to the Winnifred site, then 0.6 km north to the Bolitho site, and finally 0.2 km northwest to the Delancey site. This sequence of site relocations involves moving further north each time, a pattern noted later in the Woodland Tradition sites on Duffin Creek and elsewhere (MacDonald 2002) and in the Crawford Lake area (Finlayson 1998b). In this scenario, Boys and perhaps the destroyed Carleton Site may represent a separate sequence of village relocations on the eastern branch of Duffin Creek.

D.2 Pickering Substage Special Purpose Sites

There are 19 special purpose Pickering substage sites.

D.2.1 Anniversary Pickering Substage Special Purpose Site (AIGs-194)

The Anniversary site was discovered as part of DRPA's 1997 study of the Lamoreaux and Duffin Heights Neighbourhoods of the Seaton Lands. Visual survey and limited test pitting produced 26 pieces of ceramic vessels including one rim sherd of a juvenile vessel (DRPA 1998, 26). Poulton interprets the site as "an Early Iroquoian cabin site occupied ca. A.D. 800-1300" (ibid., 27). It "probably represents a seasonally occupied special purpose cabin site which was used for hunting and/or gathering or for the tending of agricultural fields" (ibid.).

D.2.2 Ashbridge Pickering Substage Special Purpose Site (AIGs-143)

The Ashbridge site was initially discovered by the 1978 archaeological survey of the Seaton Lands by David Spittal (1978) but was originally considered to be part of the Ginger site, one of the Early Iroquoian villages discovered (Spittal 1978), as both were situated in two adjacent fields. Work in 1992 discovered artifacts in four test pits in the western field (M.M. Dillon 1993).

Archaeological survey of the Duffin Heights and Lamoreaux Neighbourhoods segment of the Seaton Lands by Dana Poulton test pitted the eastern field in which Ashbridge was located which resulted in the discovery of both Early Iroquoian and Middle Woodland ceramics (DRPA 1998, 12).

A Stage 3 investigation of the site by Dana Poulton resulted in the excavation of 87 1 x 1 m squares and the recovery of 116 Indigenous artifacts. Included were parts of six Early Iroquoian vessels and one Middle Woodland vessel. Chert artifacts included 16 pieces of Onondaga chert and "a flake of red material which resembles jasper" which Poulton suggests may be derived from Berks County, Pennsylvania (DRPA 2012, 29). A second piece of chert is tentatively identified as Norwood chert, possibly from Charlevoix County in Michigan (ibid., 28). It is suggested that both these exotic cherts might be from the Middle Woodland component of the site.

The northwest locus of the Ashbridge site was subject to Stage 2 test excavations resulting in the discovery of a single small piece of pottery similar to those of other nearby components of the Ashbridge site (GTALa 2016, 29). Stage 3 test excavations involved the excavation of 32 1 x 1 m squares resulting in the recovery of 12

fragmentary sherds, two body sherds, and two flakes of Onondaga chert (GTALb:2016, 32–33).

Stage 4 excavation of the site was undertaken by Ground Truth Archaeology in 2013 and 2016 (GTAL 2020). A preliminary report was received after the cut-off date for inclusion in this publication.

D.2.3 Cara Pickering Substage Special Purpose Site (AloGs-343)

The Cara site was discovered by AAL in 2005 and subject to Stage 2 and 3 archaeological assessment. The Stage 2 assessment produced a single fragment of pottery (AAL 2005d, 34). The Stage 3 assessment involved the excavation of 14 1 x 1 m squares which produced 63 fragmentary sherds and a single body sherd (*ibid.*, 36). The site was interpreted as an Early or Middle Iroquoian “short term campsite which was used for hunting and/or gathering, or for the tending of agricultural fields” (*ibid.*).

Stage 4 salvage excavations were undertaken by GTAL and involved the excavation of 123 1 x 1 m units and the stripping of topsoil from an area approximately 35 x 37 m. Artifacts recovered included 44 chipped lithic artifacts and 420 ceramics including 10 fragmentary rim sherds and a ceramic pipe fragment (2016c).

It was concluded that Cara was a Pickering site; it “is either a campsite for day use while attending to adjacent horticultural plots or a short duration camp focused on the harvesting of a local resource” (GTAL 2016d, 42).

D.2.4 Cinnamon Girl Pickering Substage Special Purpose Site (AIGs-191)

The Cinnamon Girl site was discovered by D. R. Poulton and Associates in 1997 (DRPA 1998). A visual survey and two positive test pits produced 29 artifacts including six chert artifacts and 23 pieces of pottery (AAL 2005a, 22).

Archaeological Assessment Ltd. undertook a controlled surface survey in 2005 which produced 14 artifacts from 14 different locations. The Stage 3 investigations included the excavation of 29 1 x 1 m units and produced 330 artifacts including two fragmentary rim sherds, five body sherds, 304 fragmentary sherds, a pipe stem, and 18 chert artifacts (*ibid.*, 23).

The site was interpreted as a cabin site pertaining to the Early Iroquoian of Duffin Creek. “The site probably represents a seasonally occupied special purpose cabin site which was used for hunting and/or gathering, or for tending of agricultural fields” (*ibid.*, 23).

D.2.5 Eastwood Pickering Substage Special Purpose Site (AIGs-198)

The Eastwood site was discovered during a Stage 2 assessment in 1997 by D.R. Poulton and Associates (1998). The site is 0.6 km northwest of the Ginger site. Artifacts found included one fragmentary sherd and six pieces of chert (D.R. Poulton and Associates 1998, 32).

The 2005 Stage 3 controlled surface survey and excavation of 12 1 x 1 m units recovered five pieces of pottery and 23 pieces of chert. A neck sherd had a push-pull horizontal decoration and a body sherd had a check stamped exterior surface (Archaeological Assessments Ltd. 2005, 5) suggesting a Pickering affiliation.

ASL returned to the site in 2015 and excavated an additional 20 Stage 3 1 x 1 m units and recovered an additional nine pieces of chert.

It was concluded:

that the Eastwood site represents the location of a temporary campsite which was probably used for hunting and/or gathering, or for the tending of agricultural field for a brief period. The small size of the site and the artifact assemblage suggests that this site was occupied for a relatively short period of time by a very small group of individuals. The site probably represents a satellite campsite associated with one of the large Early Iroquoian village sites which are in this area. It is also possible that the existing site area represents the northern section of a larger site which has been partially destroyed by the borrow pit to the south. (Archaeological Assessments Ltd. 2015, 8).

ASL undertook Stage 4 excavations which involved the digging of an additional 31 1 x 1 m squares and the stripping of an area of 23 by 30 m to search for subsurface features. These investigations produced one piece of pottery and 32 chipped stone artifacts (AAL 2016).

D.2.6 Gidaaki Pickering Substage Special Purpose Site (AIGs-337)

The Gidaaki site was found in 2005 by AAL. The Stage 3 controlled surface collection recovered 16 artifacts while Stage 3 test excavations of 29 1 x 1 m units (AAL 2005d, 28) recovered 40 fragmentary sherds, four body sherds, seven chert flakes and the tip of a chert biface (ibid.). The site was interpreted as a “short term Early Iroquoian cabin or special purpose site occupied circa A.S. 900-1275” (ibid., 29).

Stage 4 excavations were undertaken by Ground Truth Archaeology and involved the excavation of 153 1 x 1 m squares in two different loci on the site. Subsequently,

the two loci were stripped of topsoil to search for features. These areas were approximately 35 x 40 m and 34 by 43 m in extent. A total of 609 fragments of pottery were recovered. Four vessels were inferred, and 55 chert artifacts recovered. The excavations suggested this was a Pickering substage “campsite for day use while attending to adjacent horticultural plots or a short duration camp focused on the harvesting of a local resource” (GTALc, 2016, 48)

D.2.7 Kujo Pickering Substage Special Purpose Site (AIGs-190)

The Kujo site was discovered through the recovery of four pieces of ceramics which included a Pickering substage fragmentary rim sherd by D.R. Poulton and Associates in 1997 (DRPA 1998, 21).

A Stage 3 CSP by Archaeological Assessments Limited discovered an additional piece of pottery while test excavations which involved the excavation of 24 1 x 1 m units recovered an additional 43 pieces of pottery vessels (AAL 2005a, 20). AAL concluded that “its artifact assemblage and location, indicate that it was an Early Iroquoian camp occupied ca A.D. 900-1275. The site probably represents a seasonally occupied special purpose site which was used for hunting and/or gathering, or possibly for tending of agricultural fields” (ibid., 22).

Stage 4 investigations by ASI involved stripping about 1,800 sq m at the site. A single feature produced seven sherds, two decorated with linear dentate stamping supporting a Pickering substage occupation (ASI 2007b, 3, 6).

D.2.8 Little Clish Pickering Substage Special Purpose Site (AIGs-202)

The Little Clish site was also discovered by D.R. Poulton and Associates in 1997 and involved the recovery of one neck sherd and one piece of chert (DRPA 1998, 39).

A Stage 3 CSP by AAL in 2005 found no additional artifacts (2005a, 28). Excavation of 8 1 x 1 units produced only one more fragmentary sherd (ibid.). The site was interpreted as “the location of a small activity area or temporary campsite dating to the Early or Middle Iroquoian period” (AAL 2005, 29).

The site was subject to Stage 4 salvage excavation by ASI which involved stripping topsoil from an area of about 1,000 sq m. No cultural features or artifacts were recovered (2007b, 8).

Given its proximity to the nearby Kujo and Cinnamon Girl sites, this site is most likely another Pickering substage special purpose site.

D.2.9 Little Fisher Pickering Substage Special Purpose Site (AIGs-203)

The Little Fisher site was found by D.R. Poulton and Associates in 1997 as a result of the recovery of a single fragmentary piece of pottery (DRPA 1998, 40).

A Stage 3 CSP by AAL resulted in the recovery of a fragment of a rim sherd and a flake of Onondaga chert. The excavation of six 1 x 1 m squares produced no additional artifacts (AAL 2005a, 30). It was concluded that the site “represents a location of a small activity area or temporary campsite dating to the Early or Middle Iroquoian period (A.D. 900 to 1400)” (ibid., 31).

Stage 4 salvage excavations involved the stripping of about 1,000 sq m of topsoil from the site area. No features or artifacts were recovered (ASI 2007b, 9).

D.2.10 Lorne White Pickering Substage Special Purpose Site (AIGs-195)

The Lorne site was discovered by the assessment of the Lamoreaux and Duffin Heights Neighbourhoods of the Seaton Lands by DRPA. Artifacts recovered included 26 pieces of ceramic vessels and seven pieces of chipped lithics. It is also interpreted as an Early Iroquoian cabin site occupied about A.D. 800–1300 (DRPA 1998, 28).

D.2.11 Mawson Pickering Substage Special Purpose Site (AIGs-107)

The Mawson site was recorded by Spittal as the location of three small pottery sherds and several fragmentary sherds. One of the sherds was decorated with dentate stamping or check stamping (1978, 64). Site size is estimated as 0.12 ha (Poulton 1994b data sheet). Given the currently available information on other Pickering substage special purpose sites, it is possible that this is another such site.

D.2.12 McLachlin Pickering Substage Special Purpose Site (AIGs-199)

The McLachlin site was also discovered by DRPA in 1997. Seventeen artifacts including one analysable rim sherd, 15 other ceramic pieces, and a graver/scrapper were recovered from an area of 0.52 ha. The site was interpreted as a seasonally occupied hamlet. The presence of three discrete clusters of artifacts suggests that McLachlin may represent three separate “activity areas or middens” (DRPA 1998, 36).

D.2.13 Miller (AIGs-1)/Valley Ross (AIGs-232) Site

The Miller site was discovered during the assessment of the Central Duffin Collector Sewer System through the recovery of five ceramic artifacts from five positive test pits (ASI 2004a). Stage 3–4 investigations involved the excavation of 52 1 x 1 m squares and stripping of an area of 1,590 sq m with power equipment. A total of 81 post moulds

and eight features were recorded. Artifacts recovered included 1,171 pieces of ceramics including 17 vessels, five fragmentary rim sherds, 21 neck sherds, and 285 body sherds, 26 pieces of chert, and 16 pieces of ground and stone tools (*ibid.*, 10–20).

The site was interpreted as “the westernmost extent of the Miller site (AIGs-1), possibly an exterior activity area beyond the limits of [the] primary settlement compound as defined by the palisade documented the 1958-1961 ROM excavations” (*ibid.*, 20).

D.2.14 Veridian-P1 Pickering Substage Special Purpose Site (AIGs-486)

Stage 2 investigations were undertaken by WSP. The Record of Finds details the recovery of seven or eight pieces of pottery, one piece of chert, and a piece of animal bone (WSP 2018, 10) while the Artifact Interpretations reports five pieces of pottery, one chipped lithic artifact, and one bone artifact (*ibid.*, 12). An association with Veridian P3 and P4 is proposed.

D.2.15 Veridian-P2 Pickering Substage Special Purpose Site (AIGs-487)

As with Veridian P1, the Stage 2 assessment was completed by WSP. Two fragments of pottery were found which were also considered to be associated with P3 and P4 (*ibid.*, 10, 12).

D.2.16 Veridian-P3 Pickering Substage Special Purpose Site (AIGs-488)

The Veridian-P3 site was discovered during the assessment of Veridian P1 and P2. The Record of Finds indicates “a large scatter of approximately 30 artifacts, which were mostly pottery. A sample was collected, which included all the lithics and 11 pottery artifacts” (*ibid.*, 10). Artifact Interpretations indicated that none of the chipped lithics were diagnostic. “Some of the pottery shows diagnostic features, such as interior punctates, which suggests the site is associated with Glen Meyer, although Glen Meyer sites tend to be located to the southwest (Noble 1975)” (*ibid.*, 12). This interpretation obviously fails to comprehend that Pickering sites have ceramic vessels with interior punctates. Clearly, a Pickering affiliation is more realistic.

D.2.17 Veridian-P4 Pickering Substage Special Purpose Site (AIGs-489)

The Veridian-P4 site is also part of the above project and involved a scatter of “approximately 16-20 artifacts, which were mostly pottery. A sample was collected consisting of all lithic (chert) artifacts (1) and 4 pieces of aboriginal pottery” (*ibid.*, 10, 11). Artifact Interpretations indicate there were no diagnostics in the collection of

artifacts and suggests relationships to Veridian P3 and, thus, a Pickering substage Ontario Woodland Tradition affiliation. Given the proximity of these sites to each other and to the Winnifred village, they are probably all Pickering special purpose sites.

D.2.18 Kerr Site (AlGs-35)

The Kerr site was discovered by Bill Ross as part of the work at North Pickering in 1975 (AAL 2005c, 10). A Stage 3 CSP in 2005 resulted in the collection of 14 artifacts. Stage 3 test excavations report the excavation of 18 1 x 1 m units. These investigations produced 33 fragmentary sherds and six body sherds suggesting an Early Iroquoian site (ibid., 11).

D.3 Carleton Pickering Substage Site (AlGs-11)

The Carleton site is documented by Konrad and Ross as a Pickering substage site of unknown size which has been destroyed (1974, 42).

Appendix E

Uren Substage Sites on Duffin Creek

There are two known Uren substage villages, Miindaamiin and Sebastien.

E.1 Uren Substage Villages

E.1.1 Miindaamiin Uren Substage Village (AIGs-302)

The western portion of this site, Miindaamiin, was discovered by AAL in 2004 and subject to Stage 3 surface collection which resulted in the recovery of 34 artifacts (AAL 2005d, 11). Stage 3 test excavations involved the digging of 51 1 x 1 m units (ibid.).

The Stage 3 investigations of the western portion of the site recovered 1,427 fractured sherds, 32 rim sherds, 25 body sherds, five neck sherds, 10 pipe fragments, 119 chipped stone artifacts, 101 pieces of faunal material, one ground stone, and one rough stone artifact (ibid., 13).

The 10 analysable rims representing nine vessels were typed as Iroquois Linear-6, Ontario Horizontal-2, and untypeable-1.

Chert recovered included two side scrapers, a graver, two bipolar cores, and 113 flakes. A Late Archaic Small Point Horizon projectile point was recovered and may represent an early example of the collection of such points as good luck charms, a feature of Realignment substage sites located further to the north. Ground and rough stone artifacts included a hammerstone and a celt fragment. A cup-and-pin modified deer phalange was also found.

Additional archaeological assessments in the area by URS documented the eastern portion of the Miindaamiin site as a Uren site dating A.D. 1275–1325 (URS 2012). Test pitting of the northern portion of that part of the site east of Sideline 16 resulted in the recovery 65 pieces of pottery, three lithic artifacts, and 13 faunal remains from 11 positive test pits (ibid., 12). A controlled surface survey of the cultivated portion of the site observed 161 artifacts, of which 34 were collected, including eight lithics, 14 ceramics, six faunal remains, one human tooth, and a shell fragment (ibid., 13). Diagnostic ceramics included Uren Corded, Iroquois Linear, and Ontario Oblique rim sherds (ibid., 13) indicating a Uren substage occupation.

The northern portion of the western part of the site was subject to Stage 2 assessment which discovered five test pits containing 46 artifacts (URS 2011, 5). Subsequently, URS excavated an additional 12 1 x 1 m units and seven test trenches by gradall to further determine the western boundary of that part of the site west of Sideline 16. Five artifacts were recovered including four pieces of pottery and a single piece of Balsam Lake chert (*ibid.*, 6).

URS test pitted the bush lot at the northern end of the eastern portion of the site. Eleven test pits produced 81 artifacts including one rim sherd, 64 other ceramics, three lithics, and 13 faunal remains. A controlled surface survey of the eastern portion of the site revealed 161 artifacts of which 34 were collected. Included were 18 ceramics and eight lithics (*ibid.*, 10).

URS also excavated 78 1 x 1 m units on the eastern portion of the site which produced 1,907 artifacts (*ibid.*, 11).

The test excavations on both sides of Sideline 16 produced 1,335 ceramics including parts of 31 vessels, 15 pipe fragments, seven fragments of juvenile vessels, and one clay bead (*ibid.*, 21). Chert artifacts numbered 204 including 200 flakes and four formal tools including a drill, a graver, a side scraper, and a wedge.

While the complete size of the site has not been accurately determined, an estimated site size is approximately 2.5 ha. The investigations clearly demonstrate a Uren substage village.

E.1.2. Sebastian Uren Substage Village (AIGs-341)

This site, Sebastian, was discovered by Archaeological Assessments Ltd. (2005c) and subject to a controlled surface survey which revealed a Uren substage Middle Iroquoian village about 2.5 ha in extent. The surface collection produced a total of 332 artifacts which were recovered from 332 separate locations while another 57 artifacts were recovered from 34 test pits. Artifacts recovered included 18 rim sherds, one pipe fragment, 301 other pieces of ceramic vessels, one biface, one scraper, and 63 other chert pieces, three celts, and one celt fragment (AAL 2005c, 29).

Stage 3 test excavations were undertaken by ASI in 2010 (2015a) and involved the excavation of 225 1 x 1 m units, 35 of which showed evidence of features in the subsoil. The investigations produced 2,246 artifacts and the excavation of nine test trenches to search for the edges of the site. The ceramic sample recovered included nine identifiable vessels, 61 fragmentary rim sherds representing nine vessels, five pipe fragments, and 1903 other ceramics (*ibid.*, 16). The lithic assemblage comprised of 185 chipped stone items including a single projectile point.

The Stage 3 investigations resulted in a recommendation to preserve the Sebastien site.

The Sebastien site was used as a field school by the Toronto Region Conservation Authority during the 2012–2017 field seasons (2015, 2016, 2018). Site area is estimated at 2.5 ha (T.R.C.A. 2016, 1). Between 2012 and 2017 a total of 402 1 x 1 m units were dug resulting in the recovery of 34,670 Indigenous artifacts and investigation of 157 features. Artifacts recovered included 614 rim sherds of which 35 were analysable, 27,315 body sherds, 134 pipe fragments, and 42 miscellaneous ceramics including one ceramic bead and one gaming disc. (ibid., 22, 31). Chipped stone included three drills, one projectile point, nine scrapers (ibid., 34), 164 informal tools (ibid., 5), and 1,595 pieces of debitage (ibid., 34). The 49 ground and rough stone tools included 31 celts, one anvil stone, and eight hammerstones (ibid., 36). Bone tools included a possible ceramic marking tool, one modified deer phalange, and one awl (ibid., 37). A single copper fishhook was recovered. The excavations revealed the central portion of one longhouse about 7.1 m wide.

Jolly, who excavated the site, estimates its date as A.D. 1300–1325 based on dating of the Uren substage by Dodd et al. (1990) (ibid., 28).

E.2 Uren Substage Special Purpose Sites

There are three Uren substage special purpose sites.

E.2.1 Peter Webb I Uren Substage Special Purpose Site (AIGs-78)

This site, Peter Webb I, was originally discovered by the NTIA archaeological surveys (Poulton 1979). This site was about 0.4 ha in extent (Dodd et al. 1990, 344) and is located 1.0 km north of Miindaamiin). Of interest is that there are no pine stands recorded for the location of this site. This suggests there needs to be more research done on the early surveyor's records of vegetation. This should provide additional information on the existence of historically documented pine stands which record the locations of agricultural fields of the Indigenous occupants of other parts of the Duffin Creek drainage.

In 1977 artifacts were found scattered over four to five acres but were concentrated in an area of about one acre and suggested a small Uren substage village (Poulton 1979). One feature was revealed on the plough-disturbed surface of the site. Its excavation revealed a hearth floor in the subsoil. For another feature noted on the surface, a 2 x 1 m unit was excavated to reveal a large pit, ovate in shape, which was

also excavated. Artifacts recovered included two partially reconstructed vessels, one rim sherd, 75 other ceramics, one projectile point, 51 other chipped lithics, one hammerstone and one bone artifact, a piece of a bear femur, scored to suggest the creation of a bone tube (Poulton 1979, 154). This feature was found to contain a large mass of faunal remains and was excavated in order to prevent further disturbance by agricultural activities. A total of 1,298 bone fragments were recovered including parts of the following: “one chipmunk, 2 woodchuck, 2 raccoon, 4 black bear and 2 white-tailed deer” (Poulton 1979, 188). Jim Burns, who examined the faunal remains, suggested that the presence of four individual bears might represent the raising of bears as documented by Champlain (*ibid.*, 189).

A crew returned to the site in 1978 and conducted further test excavations which “revealed the presence of a number of house structures and a possible palisade” (Poulton 1979, 190, Figure 4.8).

My interpretation is that there are two houses present, a longer house with four central hearths and a smaller house with a single central hearth. The longer house is interesting in that its north wall is quite irregular, like some walls at the Realignment substage White site hamlet. Further, this structure has a circular cluster of small post moulds which appears to represent an above ground sweat lodge located just outside the smaller house. Accordingly, it is the earliest example of such a structure on any site within Duffin Creek drainage, except perhaps Miller as proposed by Tyyska, and is a precursor of their widespread use during the Realignment phase.

Stage 3 investigations were undertaken by URS to determine the eastern boundary of the site. A total of 24 1 x 1 m units and four test trenches five m wide were dug to search for features in the subsoil. Only two potential features and 83 artifacts were recovered. (URS 2012, i). Artifacts recovered included six rim sherds, 70 other ceramics, one projectile point, and six other lithics.

A crew from ASI returned to the site and in 2012 stripped topsoil from an area 35 m and 70 m to continue the search for the eastern extent of the site. No cultural features were found and no artifacts recovered (ASI 2013a, i).

The Stage 3 and Stage 4 investigations of the site focused on the extreme eastern edge of the site while Poulton’s 1978 test excavations were located on the western end of the site.

Given the settlement pattern recovered by Poulton at Peter Webb I and the lack of settlement pattern data on the eastern part of the site, it is suggested that the site is a special purpose site, probably a hamlet associated with Miindaamiin. This is a hypothesis which can only be tested with further excavations at the site.

E.2.2 Lowdown Uren Substage Special Purpose Site (AIGs-335)

This site, Lowdown, was discovered in 2005 by AAL (2005b). The Stage 3 controlled surface survey discovered seven artifacts from seven findspots (*ibid.*, 23). Stage 3 test excavations involved the digging of 21 1 x1 m units which produced 101 fragmentary sherds, five body sherds, one fragmentary rim sherd, and seven chert artifacts (*ibid.*, 23).

Stage 4 excavations were undertaken by Ground Truth Archaeology (2015). A total of 79 1 x 1 m units were excavated which revealed the presence of five features in the subsoil. Artifacts recovered included 200 ceramic pieces of representing five pottery vessels, two pieces of clay pipes, and 42 chert items. Chert types are presented in Table 4.4. The site was interpreted as a Uren substage campsite site (GTA 202015, 60).

E.2.3 Little Lowdown Uren Substage Special Purpose Site (AIGs-334)

This site, Little Lowdown, was discovered in 2005 and subject to a controlled surface survey. Artifacts recovered included one fragmentary rim sherd and a chert flake (AAL 2005b, 31).

Stage 3 test excavations involved the excavations of 7 1 x 1 m units which produced one fragmentary sherd and two pieces of chert (*ibid.*).

Stage 4 excavations involved the excavation of 31 1 x 1 m units as well as stripping of an area about 30 by 30 m (GTAL 2015a, 16). The sample of artifacts from all investigations produced only nine chert flakes, one Meadowood projectile point, and six pieces of pottery vessels. The site was interpreted as a possible Uren substage special purpose site perhaps related to Miindaamiin or a yet undiscovered village (*ibid.*, 29).

Appendix F

Middleport Sites on Duffin Creek

F.1 Middleport Substage Villages

Five Middleport Villages are known for Duffin Creek drainage.

F.1.1 Wonowin Middleport Substage Village (AIGs-329)

This site, Wonowin, was discovered during a Stage 2 visual survey and immediately subject to a Stage 3 controlled surface survey by AAL in 2005. This resulted in the recovery of 269 artifacts (AAL 2005c, 25).

Stage 3 test excavations were begun by AAL and involved the excavation of 44 1 x 1 m units. A total of 3,822 artifacts were recovered which comprised 3,305 ceramics including 53 rim sherds of which 13 were analysable, 16 neck sherds, 25 body sherds, 34 fragments of pipes, 270 chipped stone artifacts, and two ground stone artifacts. The site was interpreted as a Middle Iroquoian village “probably occupied during the late Uren substage or early Middleport substage of the Middle Iroquoian period” (ca. A.D. 1300–1350) (ibid., 26, 27).

ASI undertook the completion of Stage 3 test excavations in 2009 and 2010. A total of 153 1 x 1 m test squares were dug along with seven 5 m wide test trenches to attempt to delimit the edges of this village site (ASI 2011, 5). Artifacts recovered consisted of 1,099 pieces of ceramic vessels including 90 rim sherds four of which were analysable, eight pipe fragments, and 129 pieces of chipped lithics including one biface fragment and one end scraper. Artifacts were recovered over an area less than 2.0 ha.

It was concluded that “the site can be dated to the Middle Iroquoian Period” (A.D. 1300–1350) (ibid., 10). The presence of a Pound Necked rim sherd with a very well-developed collar suggests a Middleport occupation. Further work will be required to resolve its cultural affiliation.

F.1.2 Carl L. Murphy Middleport Substage Village (AGs-368)

This site, Carl L. Murphy, was discovered during a test pit survey by New Directions Archaeology Ltd. (2009). The excavation of 70 test pits produced 215 pieces of pottery, 24 pieces of chert, and 10 fragments of bone (ASI 2012, 4) and suggested a Middleport village.

A Stage 3 assessment in 2010 and 2011 resulted in the excavation of 129 1 x 1 m units and the recovery of 1,264 artifacts (*ibid.*, 5) from an area approximately 145 x 70 m (ASI 2012b, Figure 3). The approximate site area is 1.0 ha.

The excavations produced 905 fragmentary sherds, 163 body sherds, 50 neck sherds, 11 neck shoulder sherds, one shoulder sherd, 51 fragmentary rim sherds representing 16 vessels and 16 pipe fragments and two juvenile vessel pieces (*ibid.*, 8), and 40 lithics. These investigations confirmed the presence of a Middleport village as suggested by the work by New Directions Archaeology (2009, 11).

F.1.3 Peter Webb II Middleport Substage Village (AIGs-73)

This Middleport site, Peter Webb II, was subject to a controlled surface survey in 1977 and found to be a village 1.2 ha in extent (Dodd et. al 1990, 345). Limited test excavations were undertaken in 1977 and 1978 (Poulton 1979). Artifacts detailed in Poulton's 1979 report included one rim sherd, 41 other fragments of pottery vessels, one pipe fragment, one projectile point, 56 other chipped lithics, and five ground and rough stone artifacts (*ibid.*).

F.1.4 Pearse Middleport Substage Village (AIGs-29)

This Middleport site, Pearse, was originally documented by Konrad and Ross (1974, 42) as an ossuary discovered by gravel pit operations in the 1920s. Pearse is located 6.9 km west of Peter Webb II and 0.6 km southeast of Hoar.

Both sites are located near the eastern edge of the large stand of pine with many trees documented by Bowman (1974) (see Figure 2.3). This suggests that, like Draper, the sites were placed adjacent to climax forest which would have provided ready access to firewood and forest dwellers such as bear.

Investigations in 1977 and 1978 revealed a village 1.8 to 2.2 ha in extent within the area of abandoned gravel extraction located inside village area (Dodd et al. 1990, 345). Examination of the gravel pit revealed human bones from one infant, one sub-adult, one young adult, and three adults. (Poulton 1979, 203). The site was located on top of

a hill which assisted in its defense. An undisturbed midden was tested through the excavation of seven 1 x 1 m units.

The investigations produced three rim sherds, four juvenile vessel fragments, three lumps of clay, 60 other pieces of ceramic vessels, 11 pipe fragments, one projectile point, 51 other chipped lithics, 13 ground and rough stone fragments, and four pieces of modified bone fragments including one cup-and-pin modified deer phalange.

The site is interpreted as a Middleport village (Dodd et. al 1990, 345).

F.1.5 Hoar Middleport Substage Village (AIGs-71 check)

Hoar is located 0.6 km northwest of Pearse. Surface collection of this site revealed it to be a Middleport village, 3.0 ha in extent (Dodd et. al 1990, 345). Ceramics recovered included nine rim sherds, two fragments of juvenile vessels and 132 other fragment of ceramic vessels, 36 pipe fragments, two projectile points, 194 other chipped lithics, and 41 ground and rough stone fragments.

F.2 Middleport Substage Special Purpose Sites

There are also five known special purpose Middleport sites.

F.2.1 Salgo Middleport Substage Special Purpose Site (AIGs-27)

This site, Salgo, was originally documented by Konrad and Ross as a Laurentian Archaic campsite which had been partially disturbed (Konrad and Ross 1974, 42) and was recommend as one of the “Archaeological Sites Suitable for Prehistoric Reconstruction and Interpretation” (ibid., 43) and as one of the “Archaeological Sites that Must be Preserved or Salvaged” (ibid., 44).

An archaeological assessment by A.M. Archaeological Associates in 1997 attributed five pieces of chert and a ceramic sherd to the site which was considered to be a Late Woodland site (AMA 1998 in ASI 2013b, 2).

A Stage 3 assessment of the site by A.M. Archaeological Associates in 1997 involved the excavation of 21 1 x 1 m units. This resulted in the recovery of 12 fragmentary sherds, a fragment of a clay pipe, and eight chert flakes. The site was interpreted as a cabin site dating to the Middleport substage or later (ibid., 2).

Initial Stage 4 salvage excavations were undertaken by A.M. Archaeological Associates in 1997 and involved the excavation of 11 more 1 x 1 m units and the removal of topsoil in an area 25 x 55 m. This revealed a seven-m-wide longhouse, 24 m

long. A total of 383 artifacts were recovered and the site was interpreted as a cabin site dating to the Middleport of a later substage (ASI 2013b, 3). It was concluded that it was a Uren substage cabin site related to, and perhaps associated with, the Webb I and Webb II sites (sic) (ASI 2013b, 3).

An archaeological assessment for the construction of Highway 407 East by URS discovered three chert artifacts and a ceramic pipe bowl and these were ultimately used to define an expanded boundary for the Salgo site (ibid., 5).

Additional work at Salgo was undertaken by ASI and involved a Stage 2 visual survey which discovered seven artifacts while Stage 3 test excavations involved the digging of 162 1 x 1 m squares and the mechanical stripping of seven five-m-wide test trenches. Artifacts recovered consisted of 625 pieces of ceramics including 524 fragmentary sherds, 54 body sherds, 17 necks/neck shoulders, seven fragmentary rim sherds, nine vessels, seven pipe fragments, and seven other ceramics. Seventy chert artifacts including two biface fragments and one ground stone artifact, and 40 pieces of faunal material were recovered. The excavations also revealed 24 possible post moulds and six possible cultural features (ASI 2013c).

The recovery of nine ceramics vessels were classified as pottery types typical of the Middleport substage (ASI 2013, 17). The presence of one single house structure indicates a special purpose site.

Stage 4 salvage excavations involved the excavation of 181 1 x 1 m squares and the recovery of 3,253 artifacts. Included were 19 analysable rim sherds, eight castellations, 177 other analysable ceramics, and 2,997 fragmentary sherds (ASI 2014, 10). The 306 chipped lithics included two projectile points and one point fragment (ibid., 20, 22, 23). Ground stone included a celt and a hammerstone (ibid., 23, 24). Faunal remains numbered 42 including a possible decorated bone bracelet (ibid., 24–26).

In interpreting the available evidence from both the original excavations by A.M. Murray and later excavations by ASI, it was proposed that Salgo represents a site which was transitional between Uren and Middleport. To further investigate the Middle Iroquoian occupation of the immediate area, an attempt is made to seriate ceramic rim sherd data from five sites: Carl L. Murphy, Wonowin (sic), Salgo, Sebastien, and Miindaamiin. Samples ranged from 16 vessels at Sebastien to 30 vessels at Miindaamiin. Based on this data, it is suggested that Miindaamiin represents an Early Middle Iroquoian site dating to approximately A.D. 1275–1330, Wonowin (sic), Salgo and Sebastien are transitional dating to A.D. 1300–1350, while Carl L. Murphy is Late Middle Iroquoian dating to about A.D. 1300–1400 (ibid., 30).

Two radiocarbon dates were obtained on corn kernels, one of which was considered problematical and the other rejected as being too early (*ibid.*, 29).

Given the well-defined differences in the Uren and Middleport occupations in the Crawford Lake area, this present study herein considers Salgo to be a Middleport site and will continue to use the substages defined by James V. Wright (1966). Clearly the samples from the Uren and Middleport sites on Duffin Creek as summarized above are inadequate, however, when larger samples are available, the classification of the sites used in this study may be revised.

F.2.2 Spruce Ridge Site

The Spruce Ridge site was discovered by AAL with the unearthing of seven positive test pits which produced two fragmentary sherds, four pieces of chert, and one ground stone artifact (AAL 2011, 16). Stage 3 investigations involved the digging of 34 1 x 1 m units. Artifacts recovered included three analysable rim sherds, 313 other vessel fragments, 10 pipe fragments, 42 chert items, and three ground and rough stone tools. The site was interpreted as a Middle Iroquoian special purpose site (AAL 2011, 13).

Stage 4 excavations were also conducted by AAL. An additional 50 1 x 1 m units were excavated and an area of about 3,000 sq m stripped of topsoil to search for settlement patterns. A hearth, refuse pits, two pits, and 19 post moulds were investigated (*ibid.*, 8, 12). Artifacts recovered comprised 30 rim sherds including one that was analysable, 1496 other ceramics, 16 pipe fragments, one projectile point, 125 chert items, one ground stone artifact, and one soapstone pipe bowl (AAL 2011, 16–21). For all investigations only 11 vessels were identified for analysis.

The site is interpreted as a Middleport cabin site (*ibid.*, 21).

F.2.3 Spruce Ridge Site II

The Spruce Ridge II site was also found by AAL. A controlled surface collection resulted in the recovery of 154 artifacts (AAL 2005e, 15). Stage 3 investigations also involved the excavation of 79 1 x 1 m squares. Artifacts recovered from the Stage 3 investigations included three analysable rim sherds, 1046 other ceramics, six pipe fragments, 100 pieces of chipped stone including one projectile point, and four ground stone items.

The site was interpreted as a large Middle Iroquoian cabin site (*ibid.*, 18).

Stage 4 excavations were also conducted by AAL (2011) and involved the excavation of 85 1 x 1 m units and the stripping of an area “125 m north-south by up to 75 m east-

west” (ibid., 25). The investigation of the subsoil produced “17 features including 10 pits, 2 hearths 2 ash pits, 2 pockets of basal midden, 109 post moulds and 1 semi-subterranean sweat lodge” (ibid., 25). The interpretation of the features led to the interpretation of the presence of “two poorly defined houses” (ibid.), which, in my opinion, is very questionable. What is most important is the discovery of a semi-subterranean sweat lodge, the first discovery of such a feature on an Iroquoian site on Duffin Creek.

The Stage 4 excavations resulted in the recovery of six analysable rim sherds, 4,758 other ceramics, 42 pipe fragments, five projectile points, 407 pieces of chert, nine ground and stone artifacts, two fragments of stone pipes, and one bone artifact (ibid., 42–53).

The site was interpreted as a “Middle Iroquoian camp site occupied ca. A.D. 1275-1400” (ibid., 53). Based on the typological analysis of nine rim sherds, I would suggest a Middleport substage site.

F.2.4 Spruce Ridge Site III

This site, Spruce Ridge III, was found by AAL through the recovery of 60 surface collected artifacts. Stage 3 investigations involved the excavation of 35 1 x 1 m squares. Artifacts recovered included three analysable rim sherds, 188 other ceramics, four pipe fragments, 67 chipped stone items, and one ground stone artifact (AAL 2005e, 20, 21).

The site is interpreted as a “Middle Iroquoian cabin or special purpose site occupied ca A.D. 1275 to 1400” (ibid., 22).

F.2.5 Spruce Ridge Site IV

This site, Spruce Ridge IV, was discovered by AAL (2005c). The surface collection and excavation of 13 1 x 1 m squares produced one fragmentary sherd and four chipped stone artifacts. The site was interpreted as an “Iroquoian campsite” (ibid., 23). Stage 4 excavations involved stripping topsoil from an area of about 700 sq m. No features or artifacts were recovered.

For purposes of this study, the site is considered a Middleport special purpose site given its proximity to Spruce Ridge I and II and the absence of Uren substage sites in the immediate vicinity.

Appendix G

Black Creek Substage Sites on Duffin Creek

G.1 Black Creek Substage Villages

There are two known Black Creek substage villages on the Duffin Creek drainage and no known special purpose sites.

G.1.1 Wilson Park Black Creek Substage Village (AIGt-28)

This site, Wilson Park, was documented by Konrad and Ross as a Terminal Woodland site which had been partially destroyed (1974, 40). Investigations of the Wilson Park site were undertaken by D.R. Poulton & Associates in 2004 and 2005. The 2004 controlled surface survey involved removal of a mature corn crop to allow collection of artifacts between the rows of corn stake stubble. A second surface collection was completed in 2005 after the field had been cultivated. These investigations resulted in the recovery of 3,805 artifacts from 2,350 separate locations, one of the largest surface-collected samples for an Iroquoian village ever undertaken up to that time (DRPA 2006, 16, 18, 19).

Poulton's report is the finest report prepared on the surface collection of an Iroquoian site in the Duffin Creek drainage. His study suggests a site 2.4 ha (5.9 acres in size) (*ibid.*, 4) and defined several middens based on artifact concentrations.

This is the earliest known Black Creek substage village and its location is significant in that it represents a shift in the Iroquoian occupation from the central and eastern branches of Duffin Creek during the Pickering and Middleport stages to the western branch of Duffin Creek. In addition, it appears to represent a move of the Iroquois Plain to the South Slope Physiographic Region.

Artifacts recovered included 75 rim sherds, 17 castellations, 2,474 other ceramic vessel fragments, 95 pipe fragments, two pipe stem beads, 10 juvenile vessel fragments, four lumps of clay, 52 celts, 42 other ground and rough stone artifacts, two shell beads,

10 bone beads, two modified bone fragments, 14 projectile points, 152 other chipped stone artifacts, 497 pieces of chipping detritus, 141 pieces of faunal remains, two human teeth, and four chert nodules (DRPA 2006).

The rim sherd sample was described using both types and attributes and it is noted that collar heights ranged from 7.5 mm to 24.8 mm, thus indicating a lack of high collared vessels.

While the sample of pipes was obtained by controlled surface collections in an agricultural field, which undoubtedly resulted in increased breakage of these and other artifacts, the relatively large number of pipe fragments to rim sherds is instructive. The ratio of pipe fragments per 100 rim sherds is 127, a relatively high number which suggests smoking was an important activity. Following my research in the Crawford Lake area, where large quantities of smoking pipes were interpreted as being associated with feasting related to alliance formation and maintenance, this suggests that the numbers of pipes at Wilson Park are related to these activities and may relate to Wilson Park being an early frontier community of the Black Creek substage.

ASI returned to the Wilson Park site in 2010 and excavated eight test pits at the southwest edge of the site to assist in defining its boundary. Six test pits produced artifacts. In addition, a surface collection was completed for a newly discovered midden with 79 artifacts recovered (ASI 2015b, 11). A total of 102 1 x 1 m test units were excavated to explore and to determine the western and northern limits of this site. Further, six test trenches were excavated to assist in the creation of a 20 m buffer of the site's edges which resulted in discovery of eight features.

These investigations resulted in the recovery of nine analysable rim sherds, 1,452 other fragments of ceramic vessels, 16 pipe fragments, and one fragment of a juvenile vessel. Chipped lithics included one projectile point and 132 other chert artifacts, two celt fragments, a black steatite pipe stem, three other ground and rough stone artifacts, one bone bead, and 99 faunal remains (ASI 2015b, 15).

It is noted that Poulton's typological analysis of the 75 rim sherds has been miscited by Birch et al. (2016, 121) who attributes Poulton's study of the Wilson Park site and the typological analysis of the rim sherds recovered to ASI's work at the site (Birch et al. 2012, 121). The additional nine analysable rim sherds recovered by ASI are not included in Birch et al.'s data.

G.1.2 Gostick Black Creek Substage Village (AIGt-65)

This village, Gostick, was discovered by the archaeological survey of the New Toronto International Airport (Poulton 1979). A small surface collection indicates a village 3 acres (1.2 ha) in size. Gostick is located 3.0 km west of Hoar.

Artifacts recovered included 12 rim sherds, 109 other fragments of pottery vessels, nine pipe fragments, three projectile points, 73 others chipped lithics, and 22 ground and rough stone artifacts.

For the 12 rim sherds, collar decoration in declining order of occurrence were Simple motifs (66.7%), Crossed (16.7%), Opposed and Hatched (8.3%). No high collared sherds were present (Poulton 1979, 243). The single pipe bowl was of the Collared Ring type suggesting that this pipe type may not be a diagnostic of Realignment substage sites on the Duffin Creek sites. The location of the site north of Wilson Park and south of Pugh suggests a date later than Wilson Park. For purposes of this study, Gostick is considered a Black Creek substage site, although this may change when a larger sample of artifacts is available.

Appendix H

Tables for Chert Source Types for Ontario Woodland Tradition Sites on Duffin Creek

The following tables have been compiled from the publications and licence reports on file at the Ontario Ministry of Culture, Recreation, Sport and Tourism Industries. Reports written by individual authors are presented in the References Cited section of this volume. The following abbreviations are used for reports prepared by CRM companies:

| | |
|------|----------------------------------|
| AAL | Archaeological Assessments Ltd. |
| AMAS | A. M. Archaeological Associates |
| ASI | Archaeological Service Inc. |
| DRPA | Dana R. Poulton Associates |
| GTAL | Ground Truth Archaeology Limited |
| TLA | This Land Archaeology Inc. |
| URS | URS Canada Inc. |
| WSP | WSP |

| | | | | | | | |
|---------------------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 7.7 | 2 | 0.4 |
| Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony-like | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 12.4 | 0.0 | 17.0 | 0.0 | 0.0 | 59 | 12.4 |
| Quartzite | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Local Till Chert | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indeterminate | 11.7 | 63.2 | 20.0 | 0.0 | 0.0 | 73 | 15.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 474 | 100.0 |

Table H.2.1. Summary of Chert Source Types on Pickering Substage Special Purpose Sites, Part 1

| Site Cultural Affiliation Stage of Investigation No. of Specimens | Ashbridge Pickering Total 2-3 33 % | Cinnamon Girl Pickering Total 2-3 24 % | Eastwood Pickering Total 2-4 70 % | Gidaaki Pickering Total 4 62 % | Cara Pickering Total 4 44 % |
|--|---|---|---|---|--|
| Source | (DRPA 2012, 28) (GTAL 2016, 33) | (DRPA 1998, 2:23) (AAL 2005, 23) | (DRPA 1998, 2:23) (AAL 2005, 5) (AAL 2005, 7) (AAL 2016, 10) | (AAL 2005, 28) (GTAL 2016, 44) | (GTAL 2016, 39) |
| Lockport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Onandaga | 66.7 | 70.8 | 100.0 | 59.7 | 63.6 |
| Ancaster | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 |
| Haldimand | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bois Blanc | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Selkirk | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kettle Point | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Collingwood | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| | | | | | |
|------------------------|--------------|--------------|--------------|--------------|--------------|
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Huronian | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bobcaygeon | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gull River | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hudson Bay Lowland | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bayport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Mercer | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Balsam Lake | 0.0 | 12.5 | 0.0 | 0.0 | 0.0 |
| Trent Valley | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Chalcedony-like | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Norwood? | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Quartz | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Quartzite | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Local Till Chert | 0.0 | 16.7 | 0.0 | 0.0 | 0.0 |
| Indeterminate | 27.3 | 0.0 | 0.0 | 40.3 | 36.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table H.2.2 Summary of Chert Source Types on Pickering Substage Special Purpose Sites, Part 2

| Site Cultural Affiliation Stage of Investigation | Little Fisher Pickering Total 2-4 | Veridian-P3 Pickering Total 2 | Lorne White Pickering Total 2 | McLachlin Pickering Total 2 | Special Purpose Total | |
|--|-----------------------------------|-------------------------------|-------------------------------|-----------------------------|-----------------------|-----|
| No. of Specimens | 1 | 10 | 7 | 1 | 321 | |
| | % | % | % | % | No. | % |
| Source | (AAL 2005, 30) (ASI 2007) | (WSP 2018, 10, 11) | (DRPA 1998, 2:28) | (DRPA 1998 2:35) | | |
| Lockport | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |

| | | | | | | |
|------------------------|--------------|--------------|--------------|--------------|------------|--------------|
| Onandaga | 100.0 | 0.0 | 100.0 | 100.0 | 230 | 71.6 |
| Ancaster | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Haldimand | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bois Blanc | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Selkirk | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Collingwood | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Huronian | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bobcaygeon | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Gull River | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bayport | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 0.0 | 0.0 | 0.0 | 0.0 | 13 | 3.9 |
| Trent Valley | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony-like | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.3 |
| Quartz | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.3 |
| Quartzite | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Local Till Chert | 0.0 | 0.0 | 0.0 | 0.0 | 17 | 5.2 |
| Indeterminate | 0.0 | 100.0 | 0.0 | 0.0 | 60 | 18.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 321 | 100.0 |

Table H.3. Summary of Chert Source Types on Uren Substage Villages

| Site | Miindaamiin | Sebastien | Uren | |
|-------------------------------|--------------------------------------|--|--------------|----------|
| Cultural Affiliation | Uren | Uren | Total | |
| Stage of Investigation | 2–3 | 2–4 | | |
| No. of Specimens | 216 | 1,968 | 2,184 | |
| | % | % | No. | % |
| Source | (URS 2012, 26, 28) (URS 2011, 27) | (ASI 2015, 19) (Jolly 2018, 31, 32) | | |
| Lockport | 1.9 | 0.7 | 17 | 0.8 |
| Onandaga | 13.9 | 42.4 | 865 | 39.6 |
| Ancaster | 0.0 | 0.0 | 0 | 0.0 |
| Haldimand | 0.5 | 0.8 | 17 | 0.8 |
| Bois Blanc | 0.0 | 0.2 | 4 | 0.2 |
| Selkirk | 0.0 | 0.2 | 4 | 0.2 |
| Indet. Devonian | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.0 | 5.4 | 107 | 4.9 |
| Collingwood | 0.0 | 0.0 | 0 | 0.0 |
| Fossil Hill | 0.0 | 1.0 | 19 | 0.9 |
| Huronian | 0.5 | 0.1 | 2 | 0.1 |
| Bobcaygeon | 0.0 | 10.4 | 204 | 9.3 |
| Gull River | 0.0 | 0.4 | 8 | 0.4 |
| Hudson Bay Lowland | 0.0 | 0.1 | 2 | 0.1 |
| Bayport | 0.0 | 0.3 | 5 | 0.2 |
| Mercer | 0.0 | 1.8 | 36 | 1.6 |
| Balsam Lake | 53.2 | 1.6 | 146 | 6.7 |
| Trent Valley | 8.3 | 0.9 | 36 | 1.6 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.0 | 1.6 | 31 | 1.4 |

| | | | | |
|------------------|--------------|--------------|--------------|--------------|
| Chalcedony-like | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 0.9 | 10.6 | 211 | 9.7 |
| Quartzite | 0.9 | 1.1 | 23 | 1.1 |
| Local Till Chert | 0.5 | 0.0 | 1 | 0.0 |
| Indeterminate | 19.4 | 20.5 | 446 | 20.4 |
| Total | 100.0 | 100.0 | 2,184 | 100.0 |

Table H.4. Summary of Chert Source Types on Uren Substage Special Purpose Sites

| Site Cultural Affiliation | Peter Webb 1 Uren Total | Lowdown Uren Total | Little Lowdown Uren Total | Uren Total | |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-------------------|----------|
| Stage of Investigation | 3 | 3-4 | 2-4 | 2-4 | |
| No. of Specimens | 58 | 49 | 14 | 121 | |
| | % | % | % | No. | % |
| Source | (Poulton 1979) (URS 2010, 13) | (AAL 2005, 23) (GTA 2015, 55) | (AAL 2005, 21) (GTA 2015, 27) | | |
| Lockport | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Onandaga | 43.1 | 32.7 | 64.3 | 50 | 41.3 |
| Ancaster | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Haldimand | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bois Blanc | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Selkirk | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Collingwood | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Huronian | 0.0 | 0.0 | 21.4 | 3 | 2.5 |
| Bobcaygeon | 0.0 | 0.0 | 0.0 | 0 | 0.0 |

| | | | | | |
|------------------------|--------------|--------------|--------------|------------|--------------|
| Gull River | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bayport | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 51.7 | 2.0 | 0.0 | 31 | 25.6 |
| Trent Valley | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony-like | 1.7 | 0.0 | 0.0 | 1 | 0.8 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 0.0 | 16.3 | 0.0 | 8 | 6.6 |
| Quartzite | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Local Till Chert | 0.0 | 20.4 | 0.0 | 10 | 8.3 |
| Indeterminate | 3.4 | 28.6 | 14.3 | 18 | 14.9 |
| Total | 100.0 | 100.0 | 100.0 | 121 | 100.0 |

Table H.5. Summary of Chert Source Types on Middleport Villages

| Site Cultural Affiliation | Wonowin Middleport | Carl L. Murphy Middleport | Peter Webb II Middleport | Pearse Middleport | Hoar Middleport | Middleport Villages | |
|---------------------------|-------------------------------------|---------------------------|--------------------------|-------------------|-----------------|---------------------|----------|
| Stage of Investigation | 3 | 3 | 3 | 3 | 3 | Total | |
| No. of Specimens | 399 | 40 | 54 | 52 | 265 | 810 | |
| | % | % | % | % | % | No. | % |
| Source | (AAL 2005, 27–28) (ASI 2001, 10) | (ASI 2012, 21) | (Poulton 1979) | (Poulton 1979) | (Poulton 1979) | | |
| Lockport | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 10 | 1.2 |
| Onandaga | 37.8 | 22.5 | 14.8 | 28.8 | 60.0 | 342 | 42.2 |
| Ancaster | 0.0 | 0.0 | 5.6 | 0.0 | 1.1 | 6 | 0.7 |

| | | | | | | | |
|---------------------------|--------------|--------------|--------------|--------------|--------------|------------|--------------|
| Haldimand | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bois Blanc | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4 | 0.5 |
| Selkirk | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.1 |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.2 |
| Collingwood | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 1 | 0.1 |
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Huronian | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bobcaygeon | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Gull River | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 0.4 |
| Bayport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.1 |
| Balsam Lake | 34.8 | 40.0 | 50.0 | 28.8 | 1.9 | 202 | 24.9 |
| Trent Valley | 1.5 | 17.5 | 0.0 | 0.0 | 0.0 | 13 | 1.6 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.2 |
| Chalcedony-like | 0.0 | 0.0 | 5.6 | 7.7 | 0.8 | 9 | 1.1 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 0.3 | 0.0 | 0.0 | 1.9 | 0.4 | 3 | 0.4 |
| Quartzite | 0.8 | 12.5 | 0.0 | 0.0 | 0.0 | 8 | 1.0 |
| Local Till Chert | 13.5 | 0.0 | 0.0 | 0.0 | 0.0 | 54 | 6.7 |
| Indeterminate | 5.5 | 7.5 | 24.1 | 32.7 | 35.5 | 149 | 18.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 810 | 100.0 |

Table H.6. Summary of Chert Source Types on Middleport Substage Special Purpose Sites

| Site | Salgo | Spruce Ridge | Spruce Ridge II | Spruce Ridge III | Spruce Ridge IV | Special Purpose | | |
|------------------------|--------------------------------------|-------------------------------------|--|-------------------|-------------------------------------|-----------------|------|--|
| Cultural Affiliation | Middleport | Middleport | Middleport | Middleport | Middleport | Middleport | | |
| Stage of Investigation | Total | Total | Total | Total | Total | Total | | |
| No. of Specimens | 374 | 237 | 565 | 67 | 8 | 1,251 | | |
| | % | % | % | % | % | No. | % | |
| Source | (ASI 2013, 10) (ASI 2014, A2:1-7) | (AAL 2005, 14) (AAL 2011, 19-21) | (AAL 2005, 17-18) (AAL 2011, 19-21) | (AAL 2005, 21-22) | (AAL 2005, 14) (AAL 2011, 19-21) | | | |
| Lockport | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 0.2 | |
| Onandaga | 40.1 | 16.0 | 27.1 | 17.9 | 12.5 | 354 | 28.3 | |
| Ancaster | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Haldimand | 0.5 | 0.0 | 1.1 | 0.0 | 0.0 | 8 | 0.6 | |
| Bois Blanc | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5 | 0.4 | |
| Selkirk | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 2 | 0.2 | |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Kettle Point | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 12 | 1.0 | |
| Collingwood | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 1 | 0.1 | |
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Huronian | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Bobcaygeon | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 3 | 0.2 | |
| Gull River | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Hudson Bay Lowland | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Bayport | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 0.1 | |
| Mercer | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | |
| Balsam Lake | 41.2 | 75.5 | 48.8 | 76.1 | 87.5 | 667 | 53.3 | |
| Trent Valley | 11.5 | 0.0 | 0.0 | 0.0 | 0.0 | 43 | 3.4 | |

| | | | | | | | |
|---------------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 1 | 0.0 |
| Chalcedony | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 2 | 0.2 |
| Chalcedony-like | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5 | 0.4 |
| Quartzite | 0.0 | 3.0 | 0.9 | 0.0 | 0.0 | 12 | 1.0 |
| Local Till Chert | 0.0 | 5.5 | 6.7 | 4.5 | 0.0 | 54 | 4.3 |
| Indeterminate | 1.6 | 0.0 | 12.6 | 1.5 | 0.0 | 78 | 6.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 1,251 | 99.9 |

Table H.7. Summary of Chert Source Types on Black Creek Substage Villages

| Site Cultural Affiliation | Wilson Park Black Creek Total | Gostick Black Creek Total | Black Creek Total | |
|--|--|--|------------------------------|----------|
| Stage of Investigation No. of Specimens | 3 816 % | 3 76 % | No. | % |
| Source | (Poulton 2006) (ASI 2015) | (Poulton 1979) | | |
| Lockport | 0.0 | 0.0 | 0 | 0.0 |
| Onandaga | 88.8 | 94.7 | 797 | 89.3 |
| Ancaster | 0.0 | 0.0 | 0 | 0.0 |
| Haldimand | 0.0 | 0.0 | 0 | 0.0 |
| Bois Blanc | 0.4 | 0.0 | 3 | 0.3 |
| Selkirk | 0.0 | 0.0 | 0 | 0.0 |
| Indet. Devonian | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.4 | 0.0 | 3 | 0.3 |
| Collingwood | 0.0 | 0.0 | 0 | 0.0 |
| Fossil Hill | 0.0 | 0.0 | 0 | 0.0 |

| | | | | |
|------------------------|--------------|--------------|------------|--------------|
| Huronian | 0.6 | 0.0 | 5 | 0.6 |
| Bobcaygeon | 0.0 | 0.0 | 0 | 0.0 |
| Gull River | 0.0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0.1 | 0.0 | 1 | 0.1 |
| Bayport | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 0.2 | 0.0 | 2 | 0.2 |
| Trent Valley | 0.0 | 0.0 | 0 | 0.0 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.1 | 0.0 | 1 | 0.1 |
| Chalcedony-like | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.1 | 0.0 | 1 | 0.0 |
| Quartz | 0.2 | 0.0 | 2 | 0.2 |
| Quartzite | 0.0 | 0.0 | 0 | 0.0 |
| Local Till Chert | 0.0 | 5.3 | 4 | 0.4 |
| Indeterminate | 8.9 | 0.0 | 73 | 8.2 |
| Total | 100.0 | 100.0 | 892 | 100.0 |

Table H.8. Summary of Chert Source Types on Realignment Substage Villages

| Site Cultural Affiliation | Pugh Realign- ment Total | Draper Realign- ment Total | Sprang Realign- ment Total | Best Realign- ment Total | Mantle Realign- ment Total | Realignment Villages | |
|---------------------------------|-----------------------------------|-------------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|-------------------------|-----|
| | 3 | 4 | 3 | 3 | 3-4 | Total | |
| Stage of Investigation | 58 | 7,498 | 16 | 200 | 6,369 | 14,141 | |
| No. of Specimens | % | % | % | % | % | No. | % |
| Source | (Poulton 1979) | (Poulton 1985, 51) | (Poulton 1979) | (Poulton 1979) | (ASI 2012, 797) | | |
| Lockport | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |

| | | | | | | | |
|---------------------------|--------------|--------------|--------------|--------------|--------------|---------------|--------------|
| Onandaga | 100.0 | 97.80 | 87.50 | 94.0 | 97.7 | 13,815 | 97.7 |
| Ancaster | 0.0 | 0.03 | 0.00 | 0.0 | 0.0 | 2 | 0.0 |
| Haldimand | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Bois Blanc | 0.0 | 0.00 | 0.00 | 0.0 | 0.6 | 36 | 0.3 |
| Selkirk | 0.0 | 0.01 | 0.00 | 0.0 | 0.0 | 1 | 0.0 |
| Indet. Devonian | 0.0 | 0.03 | 0.00 | 0.0 | 0.0 | 2 | 0.0 |
| Kettle Point | 0.0 | 0.76 | 0.00 | 0.0 | 0.6 | 97 | 0.7 |
| Collingwood | 0.0 | 0.15 | 0.00 | 0.5 | 0.0 | 12 | 0.1 |
| Fossil Hill | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Huronian | 0.0 | 0.07 | 0.00 | 0.0 | 0.0 | 5 | 0.0 |
| Bobcaygeon | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Gull River | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Bayport | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 0.0 | 0.05 | 0.00 | 0.5 | 0.2 | 19 | 0.1 |
| Trent Valley | 0.0 | 0.12 | 0.00 | 0.0 | 0.0 | 9 | 0.1 |
| Flint Ridge Chalcedony | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.0 | 0.03 | 0.00 | 0.0 | 0.2 | 15 | 0.1 |
| Chalcedony-like | 0.0 | 0.24 | 0.00 | 0.0 | 0.0 | 18 | 0.1 |
| Norwood? | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 0.0 | 0.36 | 0.00 | 0.0 | 0.0 | 27 | 0.2 |
| Quartzite | 0.0 | 0.03 | 0.00 | 0.0 | 0.0 | 2 | 0.0 |
| Local Till Chert | 0.0 | 0.00 | 0.00 | 0.0 | 0.0 | 0 | 0.0 |
| Indeterminate | 0.0 | 0.33 | 12.50 | 5.0 | 0.7 | 81 | 0.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 14,141 | 100.0 |

**Table H.9. Summary of Chert Source Types on
Realignment Substage Special Purpose Sites**

| Site Cultural Affiliation | White Realignment Total | Carruthers Realignment Total | Robin Hood Realignment Total | Realignment Total | |
|--------------------------------------|--|---|---|------------------------------|----------|
| Stage of Investigation | 3 | 3 | 4 | | |
| No. of Specimens | 444 | 47 | 116 | 607 | |
| | % | % | % | No. | % |
| Source | (Tripp 1979) | (Poulton 1979) | (Williamson 1979) (Poulton 1979) | | |
| Lockport | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Onandaga | 93.7 | 87.2 | 87.9 | 559 | 91.8 |
| Ancaster | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Haldimand | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bois Blanc | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Selkirk | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Collingwood | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Huronian | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bobcaygeon | 0.2 | 0.0 | 0.0 | 1 | 0.2 |
| Gull River | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Hudson Bay Lowland | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bayport | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Trent Valley | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.0 | 0.0 | 0.0 | 0 | 0.0 |

| | | | | | |
|------------------|--------------|--------------|--------------|------------|--------------|
| Chalcedony-like | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 4.3 | 4.3 | 8.6 | 31 | 5.4 |
| Quartzite | 0.7 | 0.0 | 0.0 | 3 | 0.5 |
| Local Till Chert | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indeterminate | 1.1 | 8.5 | 3.4 | 13 | 2.1 |
| Total | 100.0 | 100.0 | 100.0 | 607 | 100.0 |

Table H.10. Summary of Chert Source Types on Duffin Creek Special Purpose Sites

| Site Cultural Affiliation | Duffin Creek Pickering? | Duffin Creek Late Woodland | Duffin Creek Late Woodland | Duffin Creek Late Woodland | |
|----------------------------------|--------------------------------|-----------------------------------|-----------------------------------|------------------------------------|----------|
| Stage of Investigation | Total | Total | Total | Total | |
| No. of Specimens | 12 | 55 | 1,179 | 1,246 | |
| | % | % | % | No. | % |
| Source | (AMAA 2011, 8) | (ASI 2016, 8) | (ASI 2017, 10) | (AMAA 2011, 8) (ASI 2016, 2017) | |
| Lockport | 0.0 | 0.0 | 2.5 | 29 | 2.3 |
| Onandaga | 91.7 | 100.0 | 97.0 | 1,210 | 97.1 |
| Ancaster | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Haldimand | 8.3 | 0.0 | 0.0 | 1 | 0.1 |
| Bois Blanc | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Selkirk | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indet. Devonian | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Kettle Point | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Collingwood | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Fossil Hill | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Huronian | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bobcaygeon | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Gull River | 0.0 | 0.0 | 0.0 | 0 | 0.0 |

| | | | | | |
|------------------------|--------------|--------------|--------------|--------------|--------------|
| Hudson Bay Lowland | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Bayport | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Mercer | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Balsam Lake | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Trent Valley | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Flint Ridge Chalcedony | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Chalcedony | 0.0 | 0.0 | 0.4 | 5 | 0.4 |
| Chalcedony-like | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Norwood? | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartz | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Quartzite | 0.0 | 0.0 | 0.1 | 1 | 0.1 |
| Local Till Chert | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Indeterminate | 0.0 | 0.0 | 0.0 | 0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 1,246 | 100.0 |

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I have published more than 66 blogs at billfinlayson.ca. To date, 15 of these are about Draper and our investigations at the New Toronto International Airport. My thanks to my publisher, Sheri Andrunyk, for all her help with these blogs.

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William D. Finlayson
Midland, Ontario

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Publisher's Note

With more than half a century in the field of archaeology, scholar and author of a multitude of industry papers, articles, studies, and books including Our Land Speaks series of now five volumes and growing, Bill Finlayson is the senior-most archaeologist in Ontario. The sacredness of his work and his humble, yet passionate, approach to it is undeniable, and nowhere more so than in this landmark study, *The Draper Site, an Ontario Woodland Tradition Frontier Coalescent Village in Southern Ontario, Canada: Looking Back, Moving Forward*.

It is incredibly refreshing to work with someone like Bill who cares so deeply about uncovering more truths of the past by examining and re-examining complex archaeological findings in order to serve our diverse cultures and history. His willingness to reconsider his own discoveries and analysis and thoughtfully collaborate with others in his field for the greater good of this work defines the qualities of a true professional and maverick of our time.

After a long and laborious twenty-seven-plus months of writing, reviewing, and engaging with expert colleagues and federal and provincial museums, *The Draper Site* is finally in the public hands, where it should be—especially according to its author, Dr. Bill Finlayson. Stellar work.

With deep respect,

Sheri Andrunyk

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The Draper Site, an Ontario Woodland Tradition Frontier Coalescent Village in Southern Ontario, Canada: Looking Back, Moving Forward

The Draper site, excavated in 1975 and 1978, remains the largest and most significant Iroquoian site subject to salvage excavation in southern Ontario. In this innovative study, Dr. William D. Finlayson reviews more than 40 publications, theses, articles, and unpublished reports as a prelude to the reconsideration of some of the key aspects of the site. This includes presentation of a new sequence of expansions of the village, new perspectives on the use of defensive strategies in the planning of the village, and the presence of menstrual houses. Draper is used to define a specialized type of coalescent village, the Frontier Coalescent Village. This study provides new insights into the coalescence of at least five smaller villages, some from Duffin Creek and some from further afield at Draper, and the special mechanisms which made this possible and sustainable.

On a broader scale, the Draper site is situated among the almost 50 Iroquoian sites currently known on the Duffin Creek. A major conclusion of this study is that this drainage was occupied by one or more communities of Iroquoians who were not Huron-Wendat, but rather a community of Iroquoians ultimately contemporary with the Huron-Wendat confederacy which occupied Huronia in the 17th century. The use of Michi Saagiig oral histories provides new evidence in support of the migration theory for the occupation of south-central Ontario by Iroquoians in the latter part of the first millennium A.D. Comparisons are drawn to the Iroquoian occupation of the Crawford Lake area where there was also a long occupation by Iroquoians, at least one community of which were also not Huron-Wendat. The study also elaborates on the Ontario

Woodland Tradition as an organizational concept to replace the Ontario Iroquois Tradition.

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William D. (Bill) Finlayson, Ph.D., F.R.S.C., author of this paper and founder of Our Lands Speak Book Series and Occasional Papers, is the senior-most archaeologist in Ontario archaeology, with well over 50 years of experience in the field. One of his many noteworthy accomplishments was being voted a Specially-Elected Fellow of the Royal Society of Canada for his innovations in Ontario Archaeology. He is also an Adjunct Professor in the Department of Archaeology and Heritage Studies at Wilfrid Laurier University. His firm, This Land Archaeology Inc., provides services to land developers and other clients in the Greater Toronto Area and beyond.



Bill Finlayson is thoughtfully and humbly committed to searching for better knowledge from archaeological studies, whether it be in Indigenous history or Euro-Canadian history of the 19th century Ontario. The popular book series and occasional papers such as this landmark study continue to reflect his ardent commitment to making archaeological findings available to the general public and to interested researchers.



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