SMALL SITES ARCHAEOLOGY:
Bigger is Better? or
Site Significance is not Always a Function of Baseline Length

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ABSTRACT

Aside from Late Woodland villages that are large and produce lots of things, most of the province's prehistory is represented by sites that are considerably smaller and produce a relatively limited assemblage. This is the nature of small sites and the nature of much of the archaeological record. This presentation provides some examples of investigations on "small sites"; the good, the bad and the ugly - and some ideas concerning our blurred visions of site significance.

RÉSUMÉ

À l'exception des villages de la période préhistorique tardive qui recèlent d'objets, la plus grande proportion de la préhistoire de la province d'Ontario est caractérisée par des plus petits gisements qui contiennent des assemblages plutôt restreints. Voilà le caractère des petits sites et donc de la majorité du document archéologique. Cet article présente des analyses de "petits sites" de plusieurs perspectives ainsi que des idées concernant notre vision faussée de leur signification.

INTRODUCTION

It's kind of funny - on the way to this symposium I saw a bumper sticker which said "43% of all statistics are misleading"

I for one, and likely many of us here, grew up with visions of archaeology that are misinformed. It is likely that most of us got "turned on" to the discipline as kids (or whatever we were) by National Geographic: articles about Pompeii, casts of human bodies from the ashes or from Egyptian pyramids and mummies, gold and precious things, and lots of it too. Likely many of us were trained on Late Woodland villages, sites full of information; things by the thousands, pottery, flint tools, animal bone, house patterns, palisades, subsoil features and middens; visions of the biggest, the earliest, the first, the most important, the most beautiful (even if they were often broken).

All of us have had to convince someone, the engineer, the developer, the planner, the public (most with similar views of the archaeological record that we all had in our younger years), that those few flakes of stone in a plowed field were worthy of further investigation before their multi-million dollar development could proceed. I can see their problem in

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understanding the importance of such things. Despite this, there has been much "fine tuning" as a result of investigations, of archaeologists trying to make sense of limited information. We would all agree that this has been generally good, sometimes bad, and, hopefully less and less often, ugly. Much of the "good stuff" generally ends up in journals and in widely circulated reports, even newspapers, and it is from these "good news" items that the non practitioner (the kids) get their views of reality. It is usually the "good stuff" that gets "sold" to students, and as a result, some become archaeologists. Some of the bad stuff gets reported too and widely disseminated, and it is up to the discriminating reader to determine what it really is, why it is good or bad and why it is there. The truly ugly stuff tends to be forgotten (or rarely published) even though our experiences from such sites often hold important lessons - keys to avoiding future mistakes, valuable insights on what not to do again later. Concentrating on the "good" we tend to withdraw from these "ugly" examples and refrain from sharing the embarrassing lessons that come "the hard way".

By the same token, there is probably a good, a bad and an ugly side to every site. Innes (Lennox 1986) had a good side. We had good support to do the "right thing". It produced lots of "stuff" and much of it made sense. At one time, if sites were plowed they were considered destroyed or of little significance and were "written off", but, as we have seen from this and other examples, the plowzone recovery and distribution of artifacts often have some important things to say about sites in general, plowed sites, our sampling strategies, and in some cases these examples provide meaningful details about a culture history.

There is a bad side to Innes too. Using our 20/20 hind sight, some might say that we should have used finer mesh screens to get scraper resharpening flakes that were undoubtedly there, and, looking at Figure 1, where we see the distribution of surface finds plotted over the limits of excavation, we might have explored an area to the northeast more fully. There may be several locations around the periphery of the area excavated that are "significant" even though artifact densities there are likely low. What sorts of activities might have been represented there?

Limits of excavation were arbitrarily selected. At Innes, in 1981-2, we used a 10 to 15 flake per square metre excavation limit. It

Figure 1 Surface discoveries at the Innes site.

Figure 2 Blue Dart site bifaces

seemed indefensible at that time to excavate low density areas further toward the periphery of a plow disturbed site. Were we, and are we still, into the perpetuation of a misconception concerning the number of "things" recovered? Are we avoiding the excavation of significant site areas because in those "other" locations the process of lithic reduction (the production of lots of debitage) was not an important activity?

It has been suggested that areas peripheral to the focus of an Archaic occupation may hold 50% empty space and, given excavation strategies as used on Innes, we can now wonder what activities might be represented there. As with the excavation of plow disturbed sites our views of cut offs or excavation limits may be changing, but slowly. Obviously excavation limits of 1, 10, or 100 flakes per metre square have a different effect, a different meaning and a different price on every site excavated.

Other useful examples might be the Kassel and Blue Dart sites. These are sites of the Early Archaic Bifurcate Base Projectile Point tradition (see Figures 2 and 3). They were published in *Ontario Archaeology* (Lennox 1993) so there must be a "good" side to these investigations. Here excavation limits based on debitage density per metre square were extended to something less than 10 flakes per metre square. While this may have been because we realized that debitage density limits are arbitrary, it may also be because there was a relatively high tool:debitage ratio.

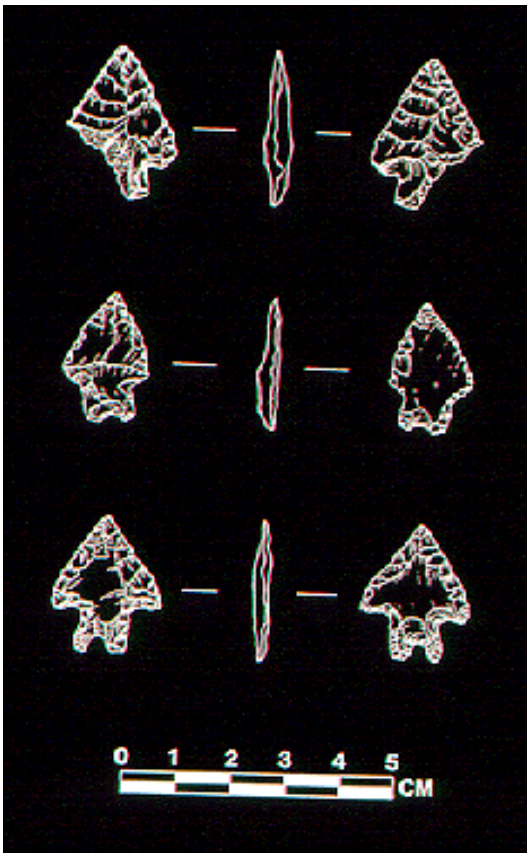


Figure 3 Kassel site projectile points.

Figure 4 The Kassel site.

At Kassel (Figure 4) the 146 square metres excavated contained 1,163 artifacts. Most squares excavated produced from 0 to 10 flakes per metre square while the remaining few produced from 11 to a rare maximum of 54 flakes. While there are few comparable single component Early Archaic sites, Kassel, likely a base camp, seems of a rather substantial size for this period. Likely, if we do not look for these small, lower density sites, we will "write off", simply by design, large segments of Ontario's prehistory. Similarily, the nearby Blue Dart site (likely a kill site), also an Early Archaic site of the Bifurcate Base Projectile Point tradition, produced about 200 flakes and less than 10 tools in a five metre square. As predicted by the shovel test pit/site discovery/ probability paper (Kenyon and Lennox, this volume), we missed Blue Dart shovel testing a woodlot (Figure 5). According to the paper by Kenyon and myself (*ibid.*), we miss quite a few of them.

Figure 5 Screening shovel test units at the Blue Dart site.

Luckily, we went back to examine the slightly disturbed forest floor after logging. I remember seeing the small pieces of red flagging tape and asking the crew if they had picked the flakes up? They said no, they were still there. On my hands and knees, I laughed when I saw them. Three pieces of microdebitage got us started.

The site, which would nicely fit into a five metre square, produced 200 flakes and some tools and 2 small pieces of charcoal from a subsoil feature (that I also doubted at first) which yielded an acceptable date of 8,300 B.P.

Figure 6 View of Collingwood on Lake Huron.

Several more examples of "small sites" or "lithic scatters" are currently under investigation by this office. They show some of the problems and some of the remarkable results that often accompany similar components. These are the Rentner and McKean sites near Collingwood, Ontario on Georgian Bay, Lake Huron (Figure 6) . The sites are located to the southeast of town. Rentner is located where Bateaux Creek crosses the raised postglacial Nipissing Beach - a "high potential" location (Figure 7). Unfortunately, everyone else thought it was a good place to be too as there is about a 6000 year spread of the occupations represented in the 200 square metres excavated (Figure 8). These occupations range from prehistoric Late Woodland (Iroquoian?) materials (Figure 9) back to Middle Archaic ground slate and chipped

Figure 7 Rentner site at Bateaux Creek.

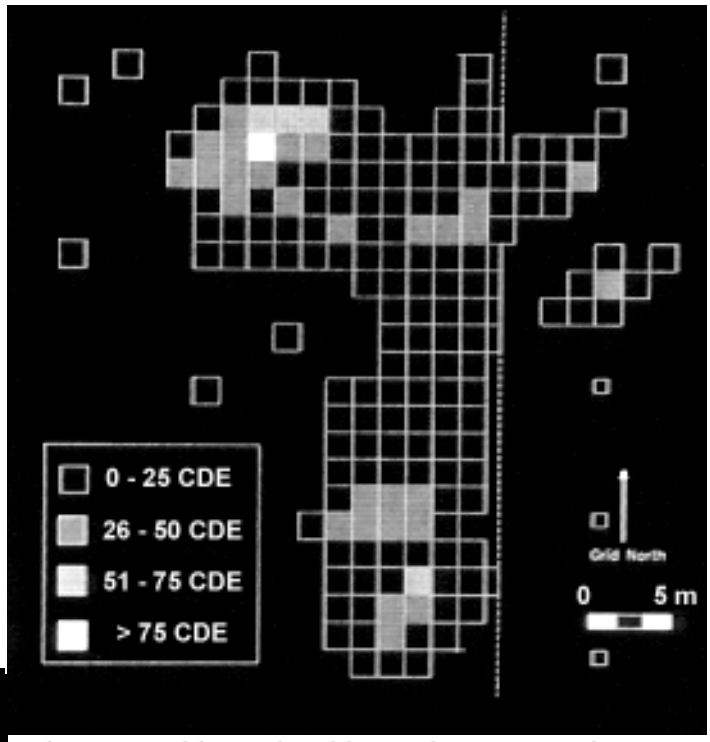


Figure 8 Debitage densities at the Rentner site.

Figure 9 Late Woodland artifacts from the Rentner site.

Figure 10 Middle Archaic artifacts from the Rentner site.

stone points (Figure 10), contemporary with the active shoreline. Early on, I was tempted to suggest, based on the mixed multi-component nature of the plowzone, the abandonment of further excavations since the components were inseparable. Fortunately, however, there are a few subsoil features with diagnostic artifacts, fish bone, etc. and one produced a radiocarbon date of 5,900 B.P. So, this potentially "ugly"site will have some "good" things to say.

Figure 11 The McKean site seen from the Rentner site.

Nearby, McKean is also on top of the Nipissing bluff, perhaps 40 metres back from the tree line / bluff edge (Figure 11). McKean also looked both small and "ugly" from the start. A few flakes (*i.e.* three) were found shovel testing a hay field and further excavation turned up a plowed, low density lithic scatter of about 1000 artifacts in 100 square metres (Figure 12). With the range of tool forms and a range of patina development on some but not all artifacts, the initial suggestion was that there were several occupations here. Hopefully this first impression was wrong.

With further inquiry regarding patina (I had never seen it like this before), I found that the range of patina development might be attributable to several factors, such as, the different rates of patina development on different chert types because of their physical characteristics and also because of artifact position in the soil during inundation of the site during high lake levels. We initially wanted to tie the site to the nearby Nipissing shore, but, with point types (Figure 13) apparently affiliated with Thebes and St. Charles points (Justice 1987), it may be that the site was occupied after the high water stages of Lake Algonquin and before the Nipissing transgression.

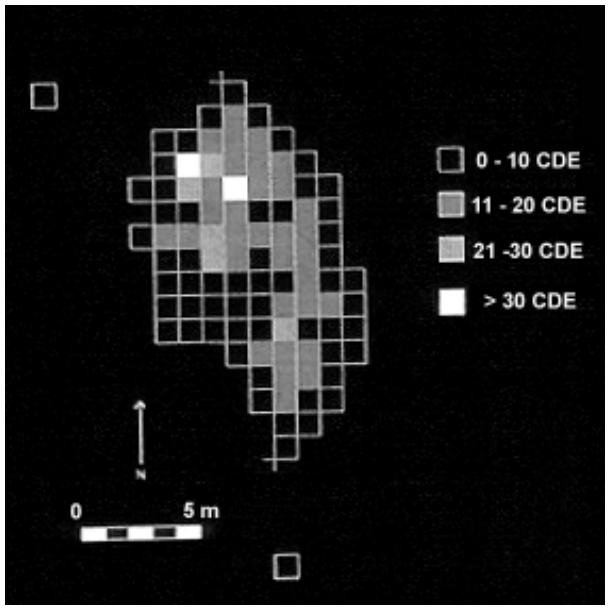


Figure 12 McKean site artifact densities.

Figure 13 McKean site bifaces and point fragments.

Figure 14 McKean site scrapers.

Some of the other tools, which also show a range of patina development, look early. For example, some the scrapers possess spurs (Figure 14) and some of the flake tools include gravers, piercers and borers (Figure 15), tools often associated with the Late Palaeo/Plano or Early Archaic Period (depending on who you read). Another early tool form from McKean that rears its head only rarely, are convincingly burins (Figure 16). One is made on a biface and one on a flake. Both exhibit prepared striking platforms for the removal of the burin spalls.

Figure 15 McKean site flake tools (gravers, a piercer and a borer).

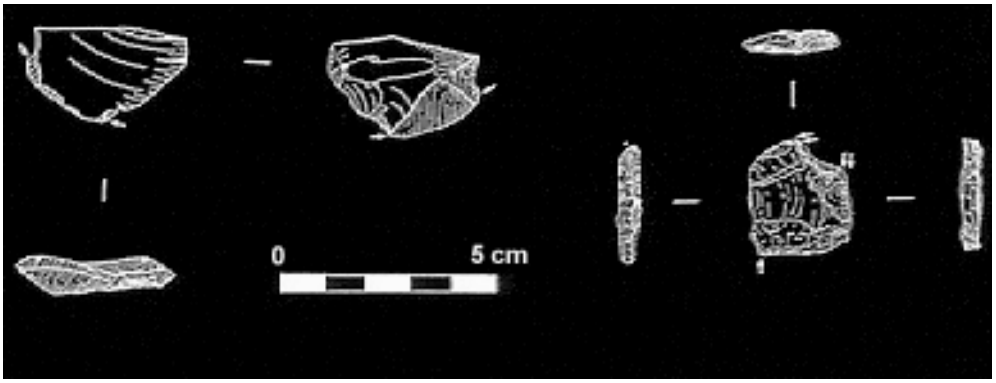


Figure 16 McKean site burins.

With these rare and early tool forms and several small mineralized pieces of cervid teeth it appears that the McKean Site is an important site with contributions to make. We did recover some small pieces of charcoal from a sub plowzone feature and await AMS results from IsoTrace.

So in both cases, Rentner and McKean, first impressions suggested that they might have been "written off" early on in the process, with justification argued from the mixed multi-component nature of the Rentner plowzone and the low density of materials recovered from McKean. But now, having had a chance to look at the material recovered, there appears to be a number of important contributions that we could not have anticipated previously.

If we review the model discussed by Kenyon and Lennox (this volume), we see that most of the sites presented in this paper are, more often than not, missed using standard field techniques (Figure 17). This makes those that we do encounter even more significant since they are such a small sample of a much greater universe. When we do find them, we must be aware of the fortunate situation in which we find ourselves and appreciate the "good" that is sometimes difficult at first to see.

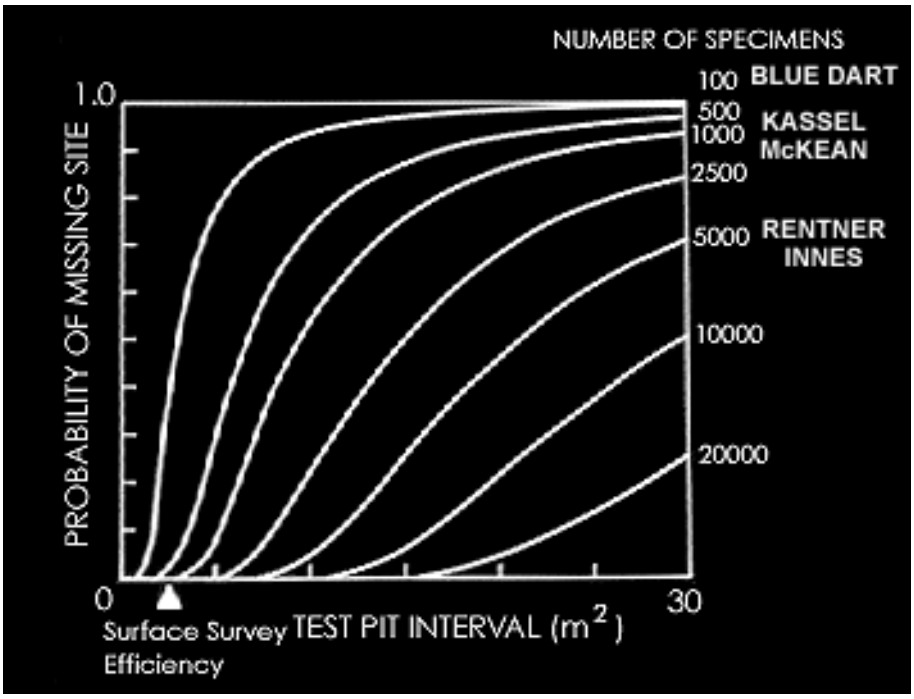


Figure 17 Probability of missing the sites discussed in this article.

Small Late Woodland sites, as well as those from the previous 10,000 years of the province's prehistory, lack the impressive remains that are typical of Iroquoian villages after being occupied for a decade or more by hundreds of individuals. Since many of us were trained on these large and complex sites, and the public's view of archaeology is based on measures of significance which have grown from elsewhere, many small sites appear as a dismal trace of the prehistoric past. But Iroquoian village sites are only a small portion of this archaeological record. Small, low density sites likely account for about 90% of Ontario's prehistory according to the time range represented and about 99% based on their number alone. We all know that we want to "save" Ontario's prehistoric record, that is why we are here. But how can we do this efficiently and cost effectively when there are so many unknowns? Lead agencies as well as our clients are asking archaeologists (cultural resource managers) to make decisions based on a limited understanding of the subject matter, yet they are more than pleased to support our "crystal ball visions" of how we think things should be and what amongst these things is worthy of protection, particularly when their views find a sympathetic ear. What do we want to save?

We have attached something of a disclaimer or renounced these other, "less attractive", sites by the implications of the use of such terms as plow disturbed, encampment, lithic scatter and so on, noting their small size, their scarcity of diagnostic artifacts and the lack of certain portions of their assemblages due to preservation. But, these are an important part of the lengthy record, if only because they are all that remains of major portions of it. There are a range of them.

Those that appear least significant often produce the most valuable information. They have not been occupied for decades by lots of people. They do not jump out to hit you between the eyes when you are digging your 100th unproductive test hole of the day. They are not "rich".

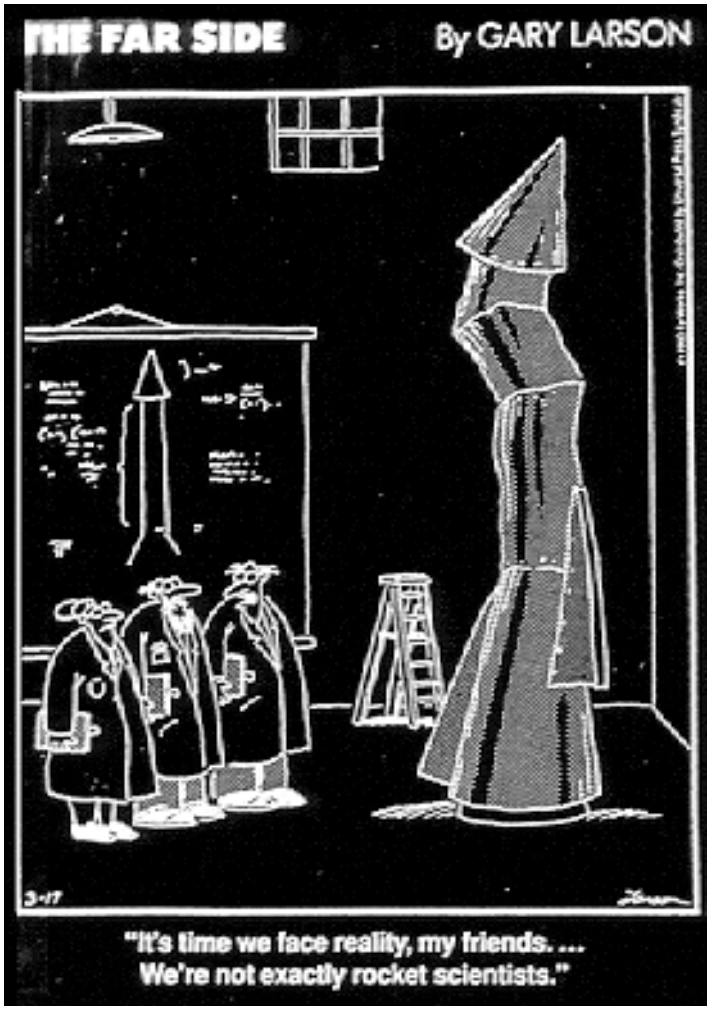
Wright, in his recent Volume I of *A History of the Native People of Canada* often comments on the difficulties of interpreting multi-component sites. For example, "Even in areas of great stability (such as the upper Saint Lawrence River valley) the fact that people occupied the same site locations over thousands of years has produced hopelessly mixed multi-component sites. This difficulty of isolating single component sites with significant samples has been a major contributor to current classification problems." (Wright 1995:218). Experience with such sites, the excavation of thousands of square metres of plowzone in "high potential" locations, has indicated some of the problems with such an archaeological record. The simple solution is to "write off" such components because of these problems and costs. But this is the hard line. Most of us would agree that it is difficult to determine precisely which sites deserve what attention before extensive testing or salvage excavation has been conducted. Often, even small portions of these large conglomerations of occupations, and portions of small sites that appear to be of limited content, interest or usefulness can provide significant details only available with substantial effort.

As we could see from the Rentner site, a site that would have been located by any potential model, a site located at the former intersection of a creek with an abandoned shoreline, the site might have been, and was, considered a "mixed multi-component mess" but it did provide some rare instances of early point forms in an area and of a time period that is poorly understood. Some of this material provides insights into major geological events in Ontario's past that are also poorly understood, and fortunately, diagnostic artifacts, small fragments of calcined faunal remains and a carbon date in association. Again, this is rare and significant information that could have easily been lost.

The archaeological record of this province is not significant through the eyes of most of our population. As indicated by the statistics in Kenyon and Lennox (this volume), using any realistic test pit interval, we will miss many small sites. Thankfully we will find some too. They will not show up as a temporally diagnostic projectile point in a shovel test hole but most likely as a single flake or amorphous piece of debitage in a place we did not expect to find a thing begging for another hole. Some of these sites will be disturbed, mixed and multi-component, sites that we wish we would have missed, others will be most interesting and revealing, sites that will amaze us for their content. These will be our future for understanding the past.

In sum, I think that as scientists (Figure 18) we would like to see the development of strong models to guide us, and on which to base (continue or cut short) our investigations. While the formulation of such guidelines is well under way, we still do not know exactly what it is that we are trying to save. Usually, when I think I do know exactly what I have found, I am later

surprised at how foolish my ill-founded early impressions were. By the same token, after swallowing my pride, I am usually, truly excited by the promise of a new discovery.



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