WHEN SMALL POTS SPEAK, THE STORIES THEY TELL

WHEN SMALL POTS SPEAK THE STORIES THEY TELL: THE ROLE OF CHILDREN IN CERAMIC INNOVATION IN PREHISTORIC HURON SOCIETY AS SEEN THROUGH THE ANALYSIS OF JUVENILE POTS

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PATRICIA ELAINE SMITH, B.A.

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AUTHOR: Patricia E Smith, B.A. (McGill University)

SUPERVISOR: Professor A. Cannon

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This work is dedicated to Joyce and Dennis with much love.


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ABSTRACT

The archaeology of children is a burgeoning sub-field within archaeology whose purpose is to make children visible by unearthing the child's world through the analysis of the archaeological correlates of their activities. The overarching goal of this research is to demonstrate the feasibility in conducting an archaeology of children while providing an example of how such a study can be executed. This is done through examining the role of children in ceramic innovation in prehistoric Huron society. The artefact category of juvenile pots is used to address this question. Traditionally juvenile pots have been subjectively classified according to small size and assumptions of crudity. In this study, the traditional criteria are re-evaluated and a diachronic stylistic comparison between juvenile and adult pots is conducted. The results indicate that juvenile pots are generally not as well made as the adult pots, so there is some validity to the traditional criteria, and that the forming of the vessels seems to be of greater importance than their decoration. Through the examination of style transmission, interactions between three generations became visible. Children were being influenced by and interacting with mothers and grandmothers in a learning environment which appears to have been sufficiently informal to allow style transmission to travel back and forth. Children then appear to have been part of the process of innovation.

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Thanks!

I'm going out to clean the pasture spring;
I'll only stop to rake the leaves away
(And wait to watch the water clear, I may):
I shan't be gone long - You come too. *Robert Frost*

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CHAPTER 1

INTRODUCTION

It's so quiet in the ruins...where dogs barked and children played...Cat Stevens

1.1 Rational

This research is set within the context of an archaeology of children, a sub-specialty developed to address the absence of children from archaeological reconstructions. It addresses this absence by investigating the category of juvenile pots in prehistoric Huron society. The overall aim is to provide a concrete example of how to access children in the archaeological past, and to include them in archaeological reconstructions. The reason for the focus on juvenile ceramics seems obvious: this category must provide instant access to children. This is only partly true, for it is an *assumption* that children were the creators of these vessels. However, because of this assumption, other aspects of these artefacts become open to inquiry, all of which may provide insight into the roles and place of children in prehistoric Huron society.

The first aspect is the artefact category itself - are these pots the work of juvenile hands? The assumption that children made these pots is based on the three traditional criteria used to distinguish these pots from others: 1) small size, 2) crudity in form, and 3) crudity in motif application. It is assumed that children had poor, or undeveloped motor skills, so could only create vessels meeting the above criteria. I believe it is likely

that children made these pots because ceramic manufacture is an important part of Huron society, and therefore would probably have been learned early, i.e. during childhood; however, this belief needs to be systematically evaluated and verified.

Another aspect is that if these pots were the work of children, what do the designs on the pots signify? What particularly drew me to this question was the potential for these designs to herald the next generation's style, i.e. are the motif elements which are acquired during childhood carried on into adulthood? Here rests the potential for discovering the roles of children in ceramic innovation. If children are innovators, it should be apparent from these childhood designs. Timmins' work (1992:301-2) provides a precedent for this belief, for he found that the most popular element and technique used during one stage on juvenile pots were the ones that became popular during the next stage on adult pots. His research focused on the Calvert site, during one stage, the Early Ontario Iroquois of Ontario prehistory (AD 900 - 1300). The current research begins in the Early Ontario Iroquois stage and continues through to the Historic period (AD 1649). The benefit of having such a span of time is the potential to see trends on a larger scale.

This inquiry also leads into a discussion of learning patterns, for the question of what designs children were utilizing progresses naturally into a discussion of how they were being taught: was it systematic, through direct adult interaction, or was it informal, mainly through observation? With a formal learning framework one would expect to see few variations in design, whereas with a less formal system, one would expect the opposite to occur.

1.2 Goals of Research

The goals of this research centre around finding a way to access children in the archaeological record. The first necessary step to accessing children is finding the archaeological correlates of their activities. The belief is that juvenile pots are these correlates, but only through an evaluation of this category can this belief be substantiated. Therefore, another goal of this research is to refine the category of juvenile pots. The underlying assumptions are that the pots are manufactured by children who are unskilled, both manipulatively and conceptually. The goal of refining this category is to determine if these pots are actually the products of unskilled artisans, but also to bring some objectivity to the category. Pots are identified as juvenile simply by "eye-balling" certain criteria (see Section 1.0). Four measures (Crudity Index, Curvature Consistency Index, Motif Application Index, Design Conception) were created to address the assumption of poor motor skills and also to provide the artefact category with greater objectivity (see Section 2.0 & 3.0).

Another goal is to clarify what role children may have had in ceramic innovation in Huron society. The purpose is to discover if children were the innovators of designs, i.e. did they foreshadow future design trends. This, as mentioned earlier, leads into a discussion of learning patterns, which is also another goal of this research. With learning patterns, we begin to learn about the specific situation of ceramic design, but also to have some idea as to how society itself was structured, and get some inkling as to how children were perceived.

The final and overall goal is demonstrating the feasibility of conducting research into the archaeology of children. Not only is the goal to demonstrate feasibility, but also to show utility. Conducting research into the archaeology of children not only reveals more about children in the past, but reveals something about those around them.

1.3 Conceptual Framework

There is a need to challenge long held beliefs regarding children, because it is only with this sort of challenge that new insights are gained. Wylie (1991) aptly notes that it is not the archaeological record that is confining, but rather our philosophies. However, despite the dearth of archaeological works on children, recent prevailing theoretical developments provide solid background for its development. The purpose of this section is to explain these theories and provide their links to the archaeology of children.

1.3.1 Post-Processual Archaeologies

The definition of post-processualism still remains somewhat elusive even a number of years after its inception, perhaps because it is a term which embodies a number of different theoretical positions and methodologies (Hodder 1986:181). However, this is not to suggest that there are no similarities within and between post-processual archaeologies, but, rather, to point out that by not having a set methodology, post-processualism allows for the continuous asking of questions which, in turn, can allow for a number of voices to be heard (Hodder 1986: 181).

Instead of a definition, the best way to represent post-processualism is probably to state its aims:

> ...the breaking down of dichotomies, set up within archaeology, between individual and norm, structure and process, ideal and material...[and] between subject and object (Hodder 1986:156).

The first dichotomy Hodder mentions is that between *individual* and *norm*. Hodder points out that archaeology raises this "problem" in an "acute" manner (Hodder 1986:7). The individual's actions, and therefore by-products, must be seen within the specific "culture-historical" situations and material culture seen as part of some sort of "social strategy" (Hodder 1986:8). Previously processual archaeology viewed culture as normative, meaning that the *behaviour* of individuals within a society was *determined* by shared standards or rules (Earle & Preucel 1987:502). The post-processual stance views culture as the "medium through which adaptation occurs" and which, in the process is itself changed (Hodder 1992:84). The import of this is that individuals are not seen as passive channels for society's norms, but rather the *agents* changing these norms (while, of course, being shaped by them) (Hodder 1992:84). Instead of "individual" and "norm" being a dichotomy, they become a dialectic.

Contrary to how the processualists viewed structure, as "a system of *observable* relations" (Hodder 1992:101), post-processualists regard structure as an underlying principle, which is mutable, but "...not visible at the surface...[and is] visible in its effects" (Hodder 1986:162). This idea of structure runs counter to processual

archaeology, for it implies that there is something not *visible* affecting interactions (Hodder 1986:162). Hodder (1986:6) argues, as mentioned above, that material culture is not the by-product of a society, but rather of individuals functioning within that society. The focus on the material representation of the individual's actions then shifts slightly, from a discussion on the identification and function of an item, to one that incorporates and also looks at the interaction between the individual and the artefact - the structure. An item reflects the influences of the creator, and once produced, imparts these influences, but then goes on to acquire new ones, depending upon the observer and the situation. Although it is very important to "read" all these different layers, and present the differing meanings, it is also important to look at the relationship between these different meanings (Hodder 1986:159). It is really here, at the cross-roads of relationships, that the archaeologist can potentially make sense of the artefact. The focus on interrelationships also allows for access to the ideational realm, because the focus would be on the "in-between" places. It is these "in-between" places where interactions take place, that information can be gained about ideas and thoughts.

This notion of the *ideal* (structure and ideology) is not eagerly embraced by processual archaeologists, for it deals with a realm not readily visible, nor readily quantifiable. Post-processualists believe that this realm is linked to the material (which is not a point the processualist disagreed with), but that it can also be accessed (point of difference) (Hodder 1986:63).

Finally, post-processualists do not aim to separate the subject from the object, but rather try to understand the relationship between the two (Hodder 1992:85). The present affects the past, in how we reconstruct it, and in what we look for (Hodder 1986:165) and, therefore, to separate the two (subject and object) creates a false comfort of objectivity. This is perhaps one of the greatest contributions of post-processual archaeology: it readdresses the dichotomous relations the processualists imposed and replaces them with a more accurate dialectic relationship.

One method for incorporating the above considerations is contextual archaeology:

> [a]n archaeology in which an emphasis is placed on the particular way that general symbolic and structural principles are assembled into coherent sets and integrated into social and ecological strategies...(Hodder 1992:29).

The context is at one and the same time both the framework, or structure of an idea, and the way in which this idea is expressed (Hodder 1992:29). The notion of reciprocity is evident in the definition of context in that there is a "give-and-take" relationship between the structure and the resulting material which, over time, is built upon and transformed (Hodder 1992:29). One criticism of contextual archaeology is that the archaeologist creates his/her own context, and therefore generates his/her own view of the past before evaluating the material record (Hodder 1992:162). However, Hodder notes that the material remains provide a context of their own which constrains the number of other contexts that can reasonably be applied (1992:162-3). And although an appropriate archaeological context is essentially anything which is relevant to comprehending the

meaning (Hodder 1992:14), in order to ascertain what is meaningful, the object must be assessed in terms of its associations and uses (Earle & Preucel 1987:506). Contextual archaeology does not forego the need for a "general theory" but instead brings theory and data closer together (Hodder 1986:154).

In the process of breaking down dichotomies, post-processualism has allowed for other archaeologies, other voices, to become viable. Because part of its aim is to question the relationship between the subject and the object, a focus on how the present shapes the past, and how present power relations affect what is said about the past (or what is even questioned) strong critiques of how archaeology is conducted have been generated. Feminist archaeology is one such critique, the archaeology of children is another, which is just beginning to find a voice.

1.3.2 Feminist Archaeology

Feminist archaeology is a predecessor to the archaeology of children and highlights many of the same conceptual adversities. One of its main contributions was to point out the ramifications of the androcentric nature of archaeological inquiry:

> ...the dominant categories of cultural experience (white, male, middle/upper class, and heterosexual) will be reflected within the cultural institution of science itself: in its structure, theories, concepts, values, ideologies, and practices (Bleier 1988:2).

Many of these "problems" within archaeology are shared with other fields of study, but archaeology has the potential to generate a "temporal continuity" in false images of

women by projecting the future back into the past, and then using that past to explain, or even to justify, the present (Conkey and Spector 1984:5). The assumption being made and confirmed is that gender relations have not changed.

The issue was never so much that women were *not* addressed in archaeological examinations, but rather, *how* they were characterized (Moore 1988:1; Conkey & Spector 1984:2). Archaeologists came to the archaeological record with unacknowledged biases (ethnocentric, personal) and projected them back into the past. This *presentism* (Conkey and Spector 1984:5) often resulted in women being described as "weak, passive, and dependent" (Conkey and Spector 1984:4). Also women were linked with certain types of activities and artefacts to the exclusion of others, which were assumed not to have as much importance as male assigned activities (Conkey and Spector 1984:7). An example of this is apparent in *who* produces pottery and its uses. Women were often considered to be the producers of domestic ceramics, and when the situation arose, men were the makers of commercial pottery. As well, women were most often aligned with pottery when it was a labour-intensive task yielding little economically, but when it became "refined" by the wheel it was aligned with men (Wright 1991:195; 199). So men are considered to produce pottery in more technically and socially complex situations; therefore, when men produce pottery it is of greater value.

There are a number of reasons why women have been represented in such a manner. One very basic reason is language. Terms like "man" and "mankind" are used to represent both men and women, but they are misleadingly exclusive (Conkey and

Spector 1984:2). There is only one gender being represented in these terms, and that is the only gender actively sought and discussed in the archaeological reconstructions. The second gender not being actively sought is then also described in terms *relative* to the protagonist.

Another reason is biology. Women have been defined along biological lines, and thereby dismissed from ever having an effect or a role in certain arenas; i.e. because of their biological limitations, women have been thought incapable of doing, attaining or being certain things (Conkey and Spector 1984:4; Moore 1988:7).

In critiquing the archaeological practice, feminist archaeology also presented alternatives, or different ways to study the past, namely a *gendered archaeology* (Gero and Conkey 1991:9). Within this framework, it becomes possible to "find" and to "see" women. This is because the questions that are asked examine the "givens":

> Feminist archaeologists do not discover another past simply by looking where no one else has. Instead, they look differently at what has always been there, seeking to understand how people lived and worked in definite and changing social spaces and relations (Handsman 1991:359).

Nor is feminist archaeology simply about *finding* women in the archaeological past. Feminist archaeology takes *gender* as a fundamental structuring cultural principle (Gero and Conkey 1991:9), and focuses on female and male relations. These relations and identities are constantly being reformulated, constructed, negotiated (Gero and Conkey 1991:10), so accessing gender in the past is partially asking questions which examine the

assumptions about male-female relations, but also seeking to understand where gender roles may have been played out (Gero and Conkey 1991:10).

A final point of importance is that the aim of feminist archaeology is not to assign certain activities to either gender (Gero and Conkey 1991:11). At its best, this goal would be a facile way to demonstrate that women were "visibly" part of the archaeological record (i.e. by attributing an awl to a woman, then one can say she was the one who made the clothing, therefore she was an "active" part of her society). At its worst, this is a way to dismiss the role of women in the past (i.e. if the activity or artefact originally assigned to them proves not to be their handiwork) (Gero and Conkey 1991:12). Another problem with this aim is that it is very limiting, for it ignores all the issues and theories of gender and gender construction (Gero and Conkey 1991:12).

The development of feminist archaeology and the archaeology of children are paralleled, especially in terms of explaining why children have been excluded from archaeological reconstructions and then in providing ways for children to be accessed archaeologically. However, the major contribution of feminist archaeology to the present research is the realization that there needs to be an epistemological shift. One cannot simply add children and expect to have attained an informed understanding of children within that specific situation (Conkey and Gero 1991:5). As with feminist archaeology, the archaeology of children calls into question traditional assumptions about the roles and activities of different members of a society.

1.3.3 Archaeology of Children

Although feminist archaeology and the archaeology of children developed out of similar historical contexts, in reaction to the androcentric nature of the sciences, the underrepresentation of children has gone unnoticed until recently. Children are often associated with women and, as a result, have suffered the same "plight" as women within archaeological reconstructions. However, in addition to this, children have the additional problem of being biased against because of their age. One main purpose then, of the archaeology of children, is to address this ageism and to make visible the "missing children" (Lillehammer 1989).

This discussion on the archaeology of children will be separated into two sections: 1) why children are"invisible"and how they have been characterized; 2) how do we conduct an archaeology of children and finally, what is it?

1.3.3.1 Reasons for Invisibility and Characterization

The first and perhaps most basic reason for children's absence from archaeological reconstructions is language. Women have been implicitly excluded from archaeological research by the uses of the terms "man" and "mankind" (Conkey and Spector 1984:2), and with children, the concept of "childhood" has proven to be a conceptually limiting term. This can be best understood by first looking at a brief history of the development of concepts of the child in the Western (European) literature.

Prior to the 17th century, the information concerning children is scant. There are only a few historical records which refer to children. Except for a few special cases, most of the information has been gleaned from "incidental" works on children (Lyman 1974:77). The image of the child was that of "miniature adult" and, perhaps on account of this, they were not much appreciated for their infantile behaviour. In addition to not being appreciated, childhood was often seen as some sort of anathema, "a state to be endured rather than enjoyed" (Tucker 1974:230).

By the beginning of the 17th century, burgeoning positive attitudes from previous centuries bloomed (not all attitudes towards children were negative). John Locke was one representative of 17th century views on children. His treatise, *Some Thoughts On Education*, expressed his view that children were in need of proper education[1], amid the prevailing attitudes of the day (Townsend 1983:27). The 17th century also saw the rise of books written especially for children (Townsend 1983:27). All of this reflected the spreading view that children needed unique instruction and, in effect, were different from adults. This is not to say that children were treated then as they are now. Even though they were beginning to be seen in need of special attention, the dominant view was still that they were "miniature adults" (Lomax et al. 1978:15).

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[1] Locke thought children had to be educated to "fit [them] for the adult world", because he felt that their minds were susceptible, and that this could then shape how adults behaved (Cox 1996:50).

By the 18th century, the views of children adjusted with the realization of their utility. There were "distinct economic advantages to having many children" (Walzer 1974:351). Children could be used to facilitate inheritance, and help in terms of physical work. This century also saw the publication of *Emile* by J.J. Rousseau detailing the education of a young boy. This book dictated a "natural" way of educating children[2]. With it came many other books in this mode, reflecting a more indulgent view towards children (in terms of education, at any rate). Although the prevailing attitudes were improving and there is some evidence of indulgence, children were still seen by some as a burden (Walzer1974).

During the 19th century, views of children and childhood were still strongly influenced by the Romantic notions of innocence and goodness (Cunnigham 1995:74). By the middle of this century, the prevalent ideology among the Western middle class was of childhood being a period of great importance - how a child was reared impacted what sort of adult a child became (Cunningham 1995:41). However, despite the Romantic appeal of childhood as a period of innocence, the actual treatment of children was ambiguous at best (Robertson 1974). There were examples of children being nurtured in an overtly affectionate manner, as well as children being treated in a very

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Rousseau saw childhood as a state of "innocence" since a child has yet to be encumbered by adult society, and is still closest to nature (Cox 1996:64). Rousseau, who wanted to maintain this innocence, felt that children should learn from direct interaction with nature, and as little as possible from adults (Cox 1996:66).

rigid, emotionless manner in the hopes of generating proper adults (Robertson 1974:415; Cunningham 1995:74-78). However, no matter how children were actually treated, the concept of childhood as a separate stage and one of importance was fairly well developed during the 19th century (Cunnigham 1995:41; Roberston 1974:428).

With the coming of the 20th century, attitudes towards children changed again. This has been labeled the "century of the child" (Cunningham 1991:218), which is readily apparent if even based only on the numerous publications, both for children and about children. During this century, previous trends have been realized: children are treated with indulgence, but greater work and concern is also devoted to their "special" needs. The modern notion of the child as "...dependent, in need of adult protection..." begins to take hold (Cunningham 1991:230-1). Childhood becomes universally defined and is made up of the values which *adults* hold to be of importance (Cunningham 1991:233).

As the above historical sketch demonstrates, concepts of what is a child and what constitutes childhood have changed and adapted over time, indicating that childhood is truly a social construct (Aries 1962; Meckel 1984; Lillehammer 1989; Finlay 1997). Using the term "childhood" elicits images of a state circumscribed by biological dependence on adults, which implies an incapacity to contribute to society. Western thinking is very linear and because childhood precedes adulthood, there is an inability to conceptualize children as creators (because one *progresses* into adulthood). As Kehoe (1994) noted, in an evolutionary schemata, children are seen as "primitive", equivalent to

undeveloped, untutored. However, there is validity to the view that children are biologically dependent on their care-takers, and everyone readily acknowledges that they were around and probably left traces (Hammond and Hammond 1981), but it is unfortunate that this dependence on adults for basic needs is seen as subsuming their input into society.

Childhood is also a term largely defined by adults, made up of their perceptions and nostalgic remembrances of what it was to be a child (Cunningham 1991). Childhood then remains largely undefined by those who are currently in that state: "Children...are in a particularly weak position because they are relegated to the state of childhood which, by definition, largely robs them of the ability to represent their own interests" (Shepherd 1994:68). It is not surprising then that children are not well represented in archaeological reconstructions, because their "childhood" once again undermines their perceived contribution to past societies.

Children are often linked with women. Since women have spent decades attempting to find their voice in archaeological reconstructions, it is not surprising that children shared in this invisibility. In addition to this, children are almost genderless. Baker points out that children are often aligned with women when talking about domestic roles, and men when they are carrying out "masculine activities" (Baker 1997:186). The problem herein is that children lose their "gendered specificity"- free floating betwixt genders adds to their invisibility (Baker 1997:186).

Another reason for the underrepresentation of children in archaeological reconstructions is ethnocentrism. When ethnographies are conducted, the children are often studied in terms of socialization, so they are seen in a passive role. Archaeologists then take this and project back into the past.

A final reason for the absence of children in archaeological work is preservation. The skeletal remains of young children are often poorly preserved, and therefore difficult to find (Finlay 1997; Kapches 1976). In addition, artefacts are difficult to identify as the work of children, or as produced for children (Finlay 1997). Because of these two difficulties, archaeologists are even less motivated to seek out evidence of children.

1.3.3.2 Conducting an Archaeology of Children and What it is

One of the first articles on children and their role in the past was written by Grete Lillehammer (1989). She began by pointing out that in order to see children in the archaeological record, one must see them as active agents; this provides the possibility of them leaving material culture remains (Lillehammer 1989:89). This is a very important point, for it provides yet another reason why children have not been visible in the past. Closely aligned with this is the notion that by ignoring them an inaccurate presentation of the past is given, because not all the individual variables have been accounted for, i.e without children, the past is incomplete.

How can one access the "child's world" archaeologically? We must first consider them active agents of their worlds. If this is denied, or not realized, then it is impossible

for them to have left any material remains indicative of anything aside from socialization. Baker notes that there is a qualitative difference in the way men and women (and by implication, children) are accessed archaeologically: "We treat as fact the assumption that the material we find was used by men, we have faith that men were there, while women must be found" (Baker 1997:188). It is necessary not to approach the record with the view that men were the only active agents (whether consciously or subconsciously), and that children must be "found", which implicitly suggests passivity.

Secondly, a holistic approach, where the focus is on children, is necessary to access children (Lillehammer 1989:96). Although Lillehammer does not define what this "holistic approach" is specifically, she does allude to one aspect of it: learning, or socialization. This would mean the examination of technology (Lillehammer 1989:102), i.e. the tools of socialization. The results of this examination would not only tell us about what the children were doing, but would also give us information on how the adults were orchestrating the process of enculturation. Toys are often considered tools for socialization. Kenyon and Arnold (1985) have discussed different categories of toys, and how they were used to socialize young Thule children. They found that socialization was facilitated through "imitative behaviour" because the toys were made to represent the tools adults used on a daily basis (Kenyon and Arnold 1985:352).

Nyree Finlay (1997) has looked at lithic production in order to understand the variability in skill levels represented. Her assumption is that children, or novices were responsible for the poorly made lithic tools, but Finlay correctly points out that in order

to assume that children were responsible, it is necessary first to know how children knap (Finlay 1997:210). This article is interesting because, although it generates more questions than answers, it situates the problematic nature of children. Miniature artefacts are often assumed to be either made for children (toys), or made by them (learning tools) (Lillehammer 1989). The problem is not so much in this assumption, but in the fact that it is often left unexamined.

To focus simply on learning and socialization in this manner can lead to a very normative view: seeing children as important only in reference to adults. This then belies their active roles, and puts them back into a passive one; they become a receptacle for cultural norms. An alternative perspective involves looking at the socialization processes as interpretive. The historian Camic (1983) suggests that an important aspect of socialization is "learning from experience" and that this experience can "run counter to formal socialization" (Meckel 1984:417). This means that out of the enculturation process can come new forms and contents: "thus experience can provide the raw material for new cultural orientations and thus can act as a seed-bed for significant cultural change" (Meckel 1984:417).

Material culture can be seen as a means of "actively constructing the world of the individual" (Derevenski 1997:194). This also allows for the process of socialization to be an active one for the child. It is probably through the examination of different aspects of socialization that we will gain a knowledge of past children, and only then will it be possible to explore other avenues of childhood.

Derevenski astutely points out that the term "childhood" implies "one continuous block of undivided time" (Derevenski 1997:198). This is misleading, for most societies mark different stages of a child's life (Derevenski 1997:198). It is also problematic for it glosses over distinctions that could be useful in understanding the archaeological record.

All ventures into an archaeology of children will not necessarily result in finding children's activities; in fact, the opposite may occur. However, as discussed in Section 1.3.2, this is not the sole aim. An archaeology of children does propose to unearth the "child's world" through an analysis of archaeological correlates of both children and adult activities, but it is also a critique. Unearthing the "child's world" means more than finding material traces; it means understanding the lives they led, which implies questioning the assumptions made about children.

1.3.4 Style

When I refer to style, I am specifically referring to its very "material" aspect: the *decoration* applied to a vessel. In general terms though, style refers to much more than decoration and some understanding of it is important when studying ceramics, for style is essentially a tool for communication. It is a "multi-mediated" form of communication which is also "multi-dimensional" and "reactive and always sensitive to context" (DeBoer 1990:83). The implications of this are:

- style has many meanings for it was generated by someone who had different spheres of influence and interactions (see Section 1.3.1)

- style is also interpreted in a number of different manners - it is not just read as what the creator intended (although the creator may have had a number of messages).

Style has typically been used to make statements about group affiliations (Conkey and Hastorf 1990:3); this has been its main use in Iroquoian archaeology. The study of motifs on juvenile pots, in relation to those on adult pots, can be seen as a way to access alternative uses of style within Iroquoian archaeology. It is also a way to access alternative meanings, and messages.

When looking at the relation between juvenile and adult pots, there are three variations that must be considered. The first one is *isochrestic* (Sackett 1986). Essentially, this is a style that is taught by "rote learning" or through imitation (Plog 1990:62), a sort of "enculturation" (Sackett 1986:267). Although this type of variation is somewhat limiting, it does account for a basic form of style transmission. The last two variations are *symbolic* and *iconographic*, *iconographic* being a specific form of *symbolic* (Plog 1990:62). The latter identifies the "...basic human cognitive process of identification via comparison" (Wiessner 1984:190), meaning that there is a desire to imitate, associate or differentiate oneself from or with others (Plog 1990:62). With *iconographic* variation, the purposes of "stylistic statements" are clear and are directed to specific segments of the population (Plog 1990:62). These two other forms are also valuable in my research because they allow for individual expression, be it intentional, as

with *iconographic* variation, or more experimental (i.e. early learning) with *symbolic* variation (Plog 1990:62).

1.3.5 Learning Frameworks

Style is multidimensional (DeBoer 1990:83). Although this makes the task of its interpretation somewhat daunting, it also allows for access to many dimensions of an individual's culture. Because style transmission is one of my concerns, not only must I look at the styles themselves, but I must also look at how style may have been transmitted. This means examining different learning patterns. The assumed pattern of learning for pottery within Huron society is matrilocally based (Trigger 1987:135); girls are assumed to have learned through observation of the women within a household (Trigger 1987:47). This assumption will be questioned in light of the stylistic analyses' results; specifically, the focus will be on "interaction spheres". There are a number of potential spheres in which learning can take place, exerting varying degrees of influence upon the learner (Hayden and Cannon 1984).

The Shipibo-Conibo of the Peruvian Amazon are known for the geometric patterns they use to decorate various forms of material culture (DeBoer 1975:1). In order to better understand how this style was acquired, DeBoer studied the designs of Shipibo-Conibo children (DeBoer 1975; 1990:87-104). He notes that learning is continuous, not just one moment in time, and incorporates both mimicry and innovation (DeBoer 1990:88). He also lists two of the most common teaching techniques, both of which

involve the copying of incised designs (or lines). What is of interest here is that neither technique results in a "perfect cross-generational transmission of individual design styles" (DeBoer 1990:88). This is significant because it implies that children formulate their own "design styles" despite the fact that they learn or are taught by adults who have their own styles. This also lends credence to Camic's (1983) "experiential learning"as a way to transform culture.

Studies conducted on how children learn to draw suggest that children everywhere go through a series of definable stages of artistic development (Kellog & O'Dell 1967; Lowenfeld & Brittain 1975). These stages can be loosely defined as:

- Scribbling (ages 2-4 yrs)
- Preschematic (ages 4-7 yrs)
- Schematic (ages 7-9 yrs)
- Drawing Realism (ages 9-12 yrs)
- Pseudo-naturalistic (ages 11-12 yrs) (Lowenfeld & Brittain 1975:48-9)

It is the first two stages which are of the most interest to this research because of the developments which take place. During the Scribbling stage, at around the age of two years, a child scribbles with a "primitive sense of figure-ground relationships" meaning that s/he places these scribbles in specific locations - i.e. on the left-hand side of the page (Kellogg & O'Dell 1976:13). By the age of three, a child draws outlines of shapes such as circles, squares, and rectangles (Kellogg & O'Dell 1967:13). Not long after drawing shapes, a child is able to enclose these shapes in forms, for example, an "x" inside a square (Kellogg & O'Dell 1967:15). A child is now able to create designs (Kellogg &

O'Dell 1967:15). It is during the Preschematic stage that a child develops the ability to stay within boundaries s/he has set (Kellogg & O'Dell 1967:87).

Of course, developing along with these drawing abilities are fine motor skills. Between the ages of 3-6 years, children's motor skills, both gross and fine, improve greatly (Papalia 1993:280). A three year old can do such fine motor activities such as pour liquid into a bowl; a four year old can cut along a straight line; while a five year old can manipulate a pencil - all of these represent a rapid development of hand-eye co-ordination abilities (Papalia 1993:282). So, essentially, based on the above discussion of drawing and motor skills, the rudiments necessary to decorate pottery are attained early and the skills are simply perfected over time.

This theoretical discussion is designed to show that it is feasible, on conceptual and practical bases, to engage in an archaeology of children. Post-processualism has created a foundation for such research in its focus on the active individual, and the role of context in understanding the material and the symbolic. Feminist archaeology has presented insight into why children are absent, and suggested ways to conduct such an archaeology. The discussion of the archaeology of children has presented information as to why children have been poorly represented in archaeological reconstructions, but also pointed out what is necessary for their inclusion. The section on style continued with the theme of *how* to conduct an archaeology of children[3], while the section on learning

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[3] Of course, this is only *one* way to conduct an archaeology of children, and is not meant

frameworks is one example of what can be attained by doing such an archaeology. However, it is now time to turn to kinds of information necessary to understand the specific context of this research, namely the Hurons.

1.4 Background

This section deals with the contextual information necessary to gain an understanding of the specific social context and culture history of the Hurons. By detailing the historical trends in Huron prehistory, and then focusing specifically on sampled sites, a basis is created for understanding the particular conditions of childhood and children. Further, this provides the framework for attaining the goals discussed in Section 1.2.

1.4.1 Trends in Iroquoian Prehistory AD 900 - 1650

During the Late Woodland period, AD 900 - 1650, tribal groupings formed the historic ethnic groups of Huron-Petun, and Neutral-Erie (Wright 1973). Archaeologists tend to refrain from ascribing ethnic affiliation to prehistoric groups (Warrick 1990: 102). However, the populations I am dealing with in my research fall in traditional Huron-Petun land, and are most likely groups that came to make up the historic Hurons.

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to imply that it is the *only* way.

1.4.1.1 Chronology

Traditionally, the span of time to be discussed, AD 900 - 1650 has been divided into three phases: Early Ontario Iroquois (E.O.I.), Middle Ontario Iroquois (M.O.I.), and Late Ontario Iroquois (L.O.I.). These stages are further divided in substages, or cultures. During the Early Ontario Iroquois, the cultures described were the Glen Meyer and Pickering; during the Middle Ontario Iroquois, the sub-stages were Uren and Middleport; and finally the Late Ontario Iroquois phase has been discussed in terms of historic tribes: Huron-Petun and Neutral-Erie. Although, for the most part, these divisions have not changed (*for alternative views, see* Williamson 1990; Spence 1994), there is much discussion over their precise dating. The main problem comes in the division between periods. For example, the Early to Middle Ontario Iroquois phase is separated at AD 1250 (Dodd et al. 1990: 324), AD 1280 (Sutton 1997; Dodd et al. 1990:324), or AD 1300 (Wright 1973). The Uren sub-stage also offers up a few problems, for there is a question of whether or not it is associated with the Middle Ontario Iroquois phase, or the Early (Spence 1994); its placement can then signal the end of the Early and the beginning of the Middle Ontario Iroquois phase, or vice-versa.

Table 1.1 Late Woodland Period

Phase	Substage	Dates
Early Ontario Iroquois		AD 900 - AD 1280 (Sutton 1997:1; Dodd et al. 1990:324)
Middle Ontario Iroquois	Uren	AD 1280 - 1330 (Sutton 1997:1)
	Middleport	AD 1330 - AD 1400 (Dodd et al.:325)
Late Ontario Iroquois		AD 1400 - AD 1650 (Ramsden 1990:361; Wright 1973:76)

1.4.1.2 Subsistence Practices

Corn horticulture is considered one of the hallmarks of Iroquoian culture (Wright 1972:67), but was not really intensively cultivated until the fourteenth century (Williamson 1990:306). During the Middle Ontario Iroquois stage, corn cultivation was intensified and later fully realized during the Late Ontario Iroquois stage (Ramsden 1990; Wright 1973); other food stuffs used to supplement a diet of corn included fish, birds, deer, wild plants and gradually beans, squash and sunflower (Williamson 1990; Reid 1975; Ramsden 1990; Dodd et al. 1990; Kapches 1981).

1.4.1.3 Settlement Patterns

The pattern of settlement from the Early to Late Ontario Iroquois phases went from small, likely seasonal village occupations to year-round village occupation, with the continued use of specialty sites (Williamson 1990; Warrick 1990; Trigger 1987; Dodd et al. 1990). The Early Ontario Iroquois phase saw a move toward greater incorporation of

corn into the diet, but not full adoption of corn horticulture (Wright 1973; Williamson 1990). This can be seen in the settlement pattern of small palisaded villages (on average, 0.46 hectares in size (Warrick 1990:337), with a disorganized placement of longhouses (Williamson 1990; Warrick 1990) and numerous small camp sites used for hunting and fishing (Trigger 1987:126-127).

A number of settlement features changed significantly during the Middle Ontario Iroquois period, and are perhaps best discussed in terms of the sub-stages: Uren and Middleport.

At Uren sites there are great increases in both house and village size, mainly resulting from the consolidation of smaller villages and population increases (Warrick 1990:346-7). Villages became larger, while longhouses varied greatly in length; it was also during this time that the familiar "cigar-shaped" houses appeared (Dodd et al. 1990:343-349). These villages were occupied for about thirty years (Warrick 1990:347). This period also saw the continued use of specialty sites (Dodd et al. 1990:348).

The Middleport substage saw a huge population increase and the spread of these peoples to cover every livable area of south central Ontario (Warrick 1990:353). The average village site was slightly larger than in the preceding substage, but contained numerous longhouses. A continued use of specialty sites is also typical of this period (Dodd et al. 1990:351).

During the Late Ontario Iroquois phase, the Huron became a real entity (Ramsden 1990; Wright 1973; Warrick 1990). The Huron occupied a number of different kinds of

sites, such as fishing and hunting camps, cabins (associated with the care of the corn fields), and "satellite" hamlets (Ramsden 1990:373). The village site, though, is the most familiar. They were fairly large, averaging 1.7-1.8 ha, and they could be as large as 5.4 ha, as was the Lalonde (BeGx-19) site (Warrick 1990:362;391). Longhouses were arranged in two clusters; in both sections, there was generally one longhouse longer than the others (Ramsden 1990:374). Huron villages were also surrounded by multiple rows of palisades, and often a lone longhouse (suggested to be a place for visitors) stood outside the palisade walls (Ramsden 1990:374).

1.4.1.4 Burial Practices

Early Ontario Iroquois burial practices are not well known or understood (Williamson 1990:306); however, this may be because each community developed its own practices according to "...its own particular mix of social, environmental, and ideological imperatives" (Spence 1994:8). In other words, there was no single burial programme in place. E.O.I. burials were found in village and fishing camp sites, along with "specialized burial sites" (Spence 1994:7). Two basic patterns of burial treatment were: 1) separate primary burial at time of death, then reburial with one's community when the temperature warmed (Spence 1994:15) and 2) initially in-house burial, then ossuary burial (Spence 1994:15-16).

During the Middle Ontario Iroquois phase, burial practices were basically "multiple interments, small ossuaries, and large ossuaries"; these all represented secondary burials (Dodd et al. 1990:353).

During the Late Ontario Iroquois phase, burial practices continued along the lines developed previously. The ossuary burial crystalized into what is known as the "Feast of the Dead". Primary interment took the form of scaffolds, graves in "a village cemetery" and then every ten or so years, individuals were reinterred in an ossuary (Ramsden 1990:380).

During all of these phases, there was another form of burial taking place. Infants were buried in houses, or on the periphery of the village[4] (Kapches 1976). There are many examples of such graves (Kapches 1976; Ramsden & Saunders 1987; Spence 1994; Knight & Melbye 1983), and they have generally been accepted to indicate that children were given special burial treatment, as were the elderly, because their souls were too physically weak to journey to the Land of the Dead (Kapches 1976; Thwaites 1898-1901 v. 1:263; v.10:143-145).

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4 There are examples of children being buried in other areas aside from in house and on the periphery of the village. The children buried at the MacPherson site, for example, were for the most part buried within or around the house (Saunders 1988).

1.4.2 Sites

Seven sites from the Barrie region (see Figures 1.1 & 1.2) of Southern Ontario provided the sample for this study. These sites, spanning the 13th to the late 16th centuries, are suitable for several reasons. One reason is that they span a sufficient amount of time to allow for trends to be seen. Also, this span is a period of much activity in this region (Warrick 1988), thereby providing insights into the relationship between ceramics and societies undergoing changes. Another reason for the selection of these sites is that they fall within the region of historic Huronia (Warrick 1988; Trigger 1987). There is some assurance then that these populations followed a similar socio-cultural trajectory[5]. And, finally, these sites were selected because they provide a suitable sample of juvenile pots and adult pots, and also have a good documentation of the adult pots. In addition to these sites, the adult pots from the Benson site were sampled for comparative purposes[6]. Benson is a proto-historic Huron village in south central Ontario, located in the Upper Trent Valley, near Balsam Lake, dating from AD 1550 - 1600 (Ramsden 1997: *in press*).

5

This is important because it means that motif elements can be traced diachronically.

6

The Benson adult collection was compared to the juvenile pots in three areas: the C.I., C.C.I., and Design Conception (both Number of Motif Elements and Location Confinement). I did not have these data for the adult pots from my seven sampled sites, so I used information from the Benson site.

All of the sites are villages except for the Dougall site, which has been considered to be a fishing camp. As this site was probably used by occupants of the Barrie region

Figure 1.1 Location of Sample Sites
(after Sutton 1994)

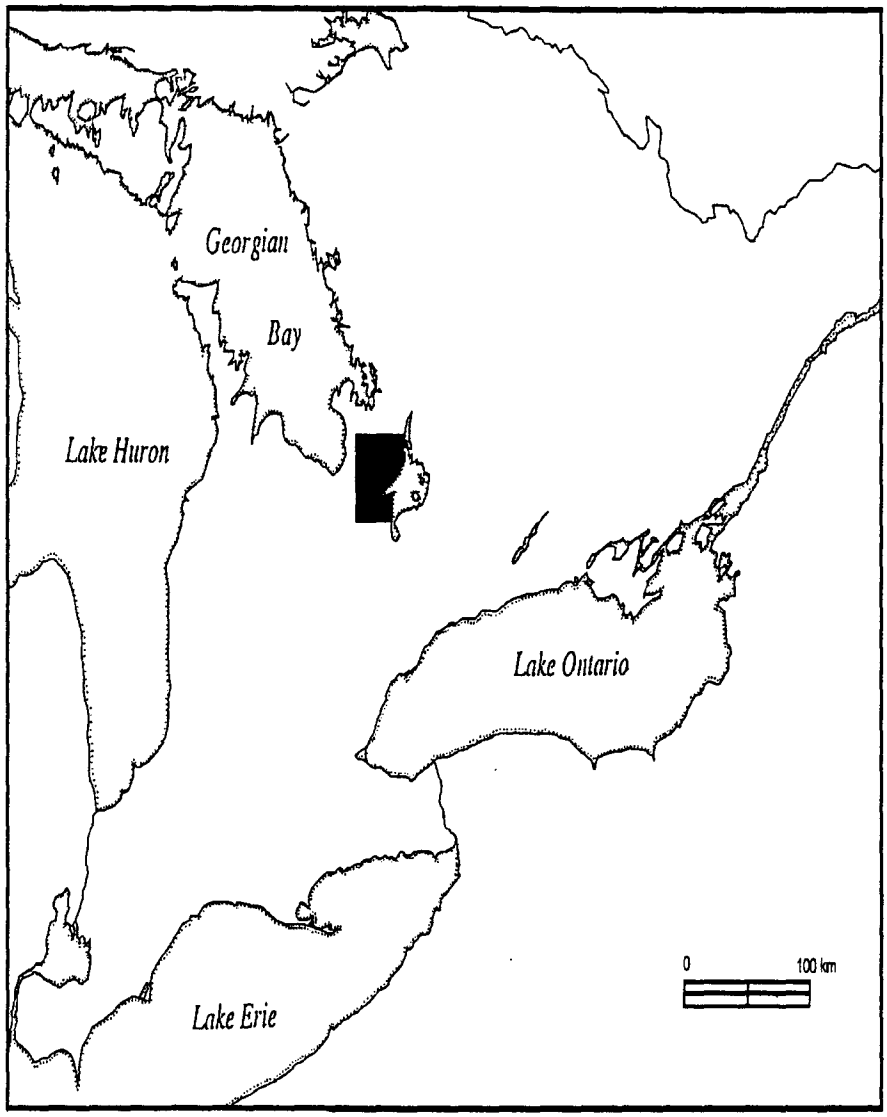
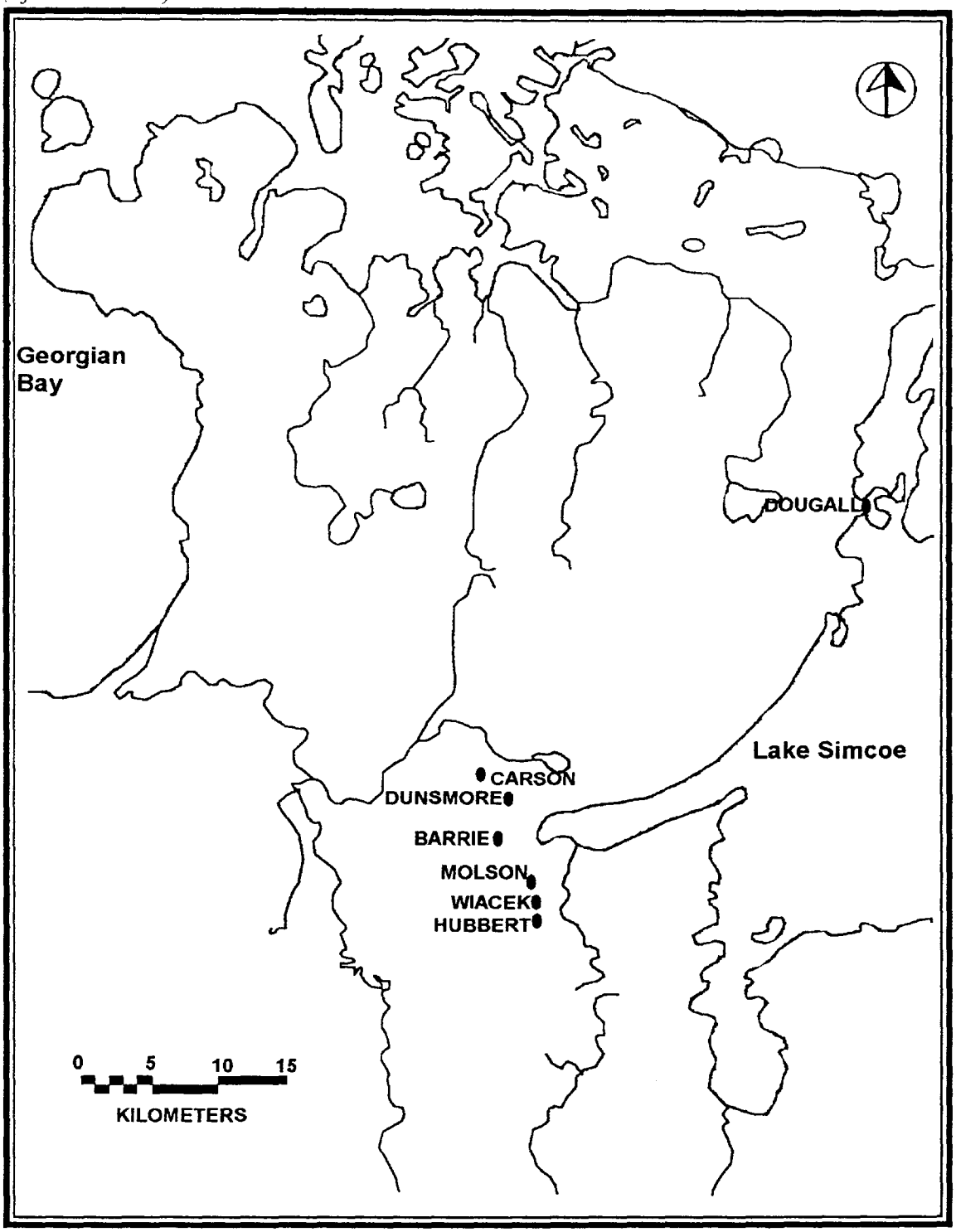


Figure 1.2 Mapped Location of Sample Sites
(after ASI 1996)



(Wright 1972), it stands as an interesting comparison for contextual differences and similarities.

The dating of these sites is somewhat problematic, in that a number of different chronological arrangements can be made. However the chronological arrangement listed in Table 1.2 was followed because of a noted style trend in Huron prehistory - a steady decrease over time in the use of the *Horizontal* motif element (ASI 1996:77).

Table 1.2 Chronological Arrangement of Sample Sites

Site	Dating Method	Date
Barrie (BcGw-18)	ceramics	AD 1280- 1330 (Sutton 1997: 60)
Wiacek (BcGw-26)	ceramics, radiocarbon	mid 14th c. (ASI 1994:39; ASI 1996:77)
Carson (BcGw-9)	ceramics	early 15th c. (ASI 1996)
Hubbert (BbGw-9)	ceramics	AD 1450 (MacDonald & Williamson 1996:167)
Dunsmore (BcGw-10)	ceramics	mid-late 15th c. (ASI 1996:77-78)
Dougall (BdGu-2)	ceramics	AD 1550 - 1649 (Wright 1972)
Molson (BcGw-27)	glass beads	AD 1580 (Lennox, *pers. comm*)
Benson (BdGr-1)	ceramics, European goods	AD 1550 - 1600

1.4.2.1 The Barrie Site (BcGw-18)

The Barrie site is located in the contemporary city of Barrie (Sutton 1997:3) and was excavated most recently by Richard Sutton (Sutton 1996; Sutton 1997). It had previously been excavated by Frank Ridley in 1958 (Ridley 1958) and by James Hunter in 1977 (Hunter 1977), although these were only test excavations (Sutton 1997:6).

Barrie dates to around AD 1280 - 1330 (Sutton 1997:3), which places it within the Uren sub-stage of the Middle Ontario Iroquois stage. It is considered to represent one of the first Iroquoian communities to settle in the area (Sutton 1997:1). The radiocarbon date of AD 1409 was dismissed because of the difficulty in dating 14th century sites and because the ceramic assemblage confirmed its placement in the Uren sub-stage (Sutton 1997:64).

Barrie is an unpalisaded village site which was probably around 0.8 to 0.9 hectares originally, however 17%, or a 1,375 square metre area, was excavated (Sutton 1997:65). Of the three longhouses excavated, only House #2 was completely excavated (Sutton 1997:12). Each of these longhouses were oriented differently (Sutton 1997:12). Five middens were also sampled (Sutton 1997:12).

A total of 13,833 ceramics were found at the Barrie site (Sutton 1997:21), accounting for about 74% of the total artefact assemblage. Of these, 299 rim shards were considered analyzable, once the pipes and body shards were separated (Sutton 1997:22). Of these 299 rim shards, 24 were juvenile. However, as my purpose is not only to

examine motifs, but to analyze motor skills, I looked at juvenile body shards as well; this brought the total juvenile collection to 34 shards.

1.4.2.2 The Wiacek Site (BcGw-26)

Wiacek is a Middle Ontario Iroquois site located on the outskirts of the city of Barrie (Robertson et al 1995:40). This site was excavated twice, first by the Ministry of Transportation, under the supervision of Paul Lennox (Lennox et al. 1986), and most recently by Archaeological Services Incorporated (ASI 1994). Although this site was excavated on two separate occasions, and I have taken samples from both collections, I am considering them as *one* site.

Wiacek is considered to be part of the Middle Ontario Iroquois stage, so dates between AD 1350-1400. A number of dates have been suggested, through radiocarbon dating, but the radiocarbon date that fits the best with the ceramic data is AD 1320 ±50 (Robertson et al. 1995:40).

Wiacek is an unpalisaded village site around 0.75 hectares in size (ASI 1994:7). Five potential longhouses were identified under the supervision of Paul Lennox in 1983 (Lennox et al. 1986), while two more small houses were identified by Archaeological Services Inc. in 1990 (ASI 1994). House #3, initially identified in 1983 was fully excavated in 1990 (ASI 1194:7). Five middens were located on the periphery of the village in the 1983 survey, with only Midden E being extensively sampled (Lennox et al. 1986:8; 12).

As this site was excavated by two different groups and was written up in two different sources, the analysis was initially conducted on each sample separately. However, the results of these analyses demonstrated little difference between the samples (see Appendix B), so it felt was safe to consider both samples as one. The combined ceramic sample total is 160 adult rim shards and 67 juvenile ceramics[7] (Robertson et al 1995:54).

1.4.2.3 The Carson Site (BcGw-9)

The Carson site is located in Vespra township, under 1 km northwest of the city of Barrie (ARA 1990:1). It falls within what is known as the Lalonde phase, early in the 15th century (ASI 1994:77). This phase is known for its high collared vessels. Carson was excavated by Archaeological Research Associates Ltd, during 1988-1989 (Hunter 1990:2).

Carson was an unpalisaded village site of about 7 acres (ARA 1990:4). It contained eight longhouses and six middens (Varley 1991:22).

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7 The relatively large number of juvenile pots in comparison with the adult pots at this site, and at others, can mainly be attributed to the vessel parts sampled. Only rim shards were analyzed for adult pots, while body shards were included in the juvenile sample. This does not present a sampling problem because the body shards were used only when conducting crudity tests (see Section 2.0) and when comparing juvenile pots to the Benson adult collection (which included body shards).

The Carson site artefact assemblage is quite large, numbering around 30,000 (Varley 1991:24). However, of this number only 299 of the adult ceramics were classified according to the MacNeish typology (ARA 1990:12-13). The juvenile pots sampled numbered 215.

1.4.2.4 The Hubbert Site (BbGw-9)

Hubbert is a site located in Simcoe county and was excavated by Archaeological Services Inc. in 1990 (MacDonald et al 1996:1). It is a Middle Iroquoian site dating to around AD 1450, based on ceramic typology (MacDonald et al 1996:167). This village site was originally around one hectare in area, however, 3,260 square metres were excavated (MacDonald & Williamson 1996:167). Three longhouses were identified and two were excavated fully (MacDonald & Williamson 1996:9).

Hubbert is a village considered to have been populated with a number of women and children, based on the volume of juvenile ceramics (MacDonald et al 1996:58). Of the ceramic rims, 97 adult pots were classified and 86 juvenile pots were examined.

1.4.2.5 The Dunsmore Site (BcGw-10)

The Dunsmore site is a mid-late 15th century site located in Vespra Township in Simcoe county (ASI 1996:1). It was excavated in 1989 by Archaeological Services Incorporated.

Dunsmore is a village site of roughly 1.9 hectares in original area, of this 1.5 hectares were excavated (ASI 1996:15). Sixteen houses were identified and most of these structures were fully examined (ASI 1996:15). Three middens were also found and excavated (ASI 1996:10). The ceramic collection contains 179 adult rims (ASI 1996:72) and 195 juvenile pots.

1.4.2.6 The Dougall Site (BdGu-2)

The Dougall site was excavated by J.V. Wright and is located "on the west side of the narrows between Lake Simcoe and Lake Couchiching" in Simcoe county (Wright 1972:3). Dougall is thought to have been a fishing camp, the use of which spanned over 2000 years (Wright 1972:3). However, despite this long span of time, most of the ceramics fall within the "prehistoric-historic" period of the Late Woodland period (Wright 1972:5-6), so roughly AD 1550 - 1649.

The adult sample numbers 72, while the juvenile pots number 133 (Wright 1972: 7). This site is noted for its abundance of juvenile pots. Wright believes that this is indicative of a lot of juvenile activity and therefore women.

1.4.2.7 The Molson Site (BcGw-27)

Molson is an unpalisaded village site located in the city of Barrie on a tributary of Lover's Creek (Warrick 1988:18). This site was excavated by the Ministry of Transportation, under the supervision of Paul Lennox (*in press)*. Originally, it probably extended to about 1.2 hectares in area (Lennox, *pers. comm.*). There were 12 longhouses found along with around twelve middens (Lennox, *pers. comm.*).

Molson falls into the protohistoric period, with a date of circa AD 1580 (Lennox, *pers. com)*. The ceramic assemblage numbers 552 for the adult shards and 85 for the juvenile.

1.4.3 Juvenile Pots

The development of pottery has always been considered important in Eastern Woodland archaeology, as it was used to distinguish between the Late Archaic and Early Woodland periods (Sassaman 1992:71). It has retained this importance, and has been used as the primary basis to describe group affiliation, migration patterns, and intra-site spatial arrangement. Juvenile pots, however, have not been included in such analyses, probably because they have been separated from larger ceramic collections based on assumptions of crudity in form and design conception. In this section, I will discuss juvenile pots in terms of the archaeological literature and how I will analyze this artefact category.

One of the early references to juvenile pots is found in J. Norman Emerson's *Understanding Iroquois Pottery in Ontario: A Rethinking* (1968). He suggested that there was a need to study them in order to determine their function (Emerson 1968:69-70). He believed that spatial analyses would provide insight into their function (Emerson 1968:70). This belief was based on work done by William Dunning who found that many ceramic artisans found these pots to be too well crafted to be the work of juveniles[8] (Emerson 1968:69). Therefore, in the mind of Emerson, the need was not to question the skill level, but rather to determine what they were used for, since, in light of the work done by Dunning, these pots were not made by children. In addition to this reference, Robert Pearce also wrote a book on juvenile pots, entitled *A Description of the Juvenile Ceramics Recovered During the 1975 Field Season at the Draper Site* (1978). Pearce incorporated Emerson's suggestions, but did not go beyond them to examine the basis of the criteria used to define juvenile pots. He believed that these pots were of juvenile manufacture because if they were made by adults one would expect the vessels to be of "fine quality and design" (Pearce 1978:1). Pearce also acknowledges that he, like other researchers, separated juvenile pots through a subjective approach (1978:1). His purpose

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While discussing the artistic merits of Iroquoian pots, Emerson notes that William Dunning had given "juvenile" pots to contemporary ceramic artists to examine. The result of their observations was that these little pots were well crafted and therefore not the product of the tinkering of children (Emerson 1968:69).

in writing this book then was *not* to question to the artefact category, but rather to examine the juvenile pots found at the Draper site (Pearce 1978).

There are not many other references made to juvenile pots in the archaeological literature, except to note their presence, and occasionally describe them[9]. However, it is clear that several authors consider these pots to have been the learning attempts of children to mimic the adult vessels (Reid 1975; Wright 1973). This is generally believed to be the craft of young girls as well, since women were the ones recorded ethnohistorically as the producers of pottery (Wrong 1968). There has also been an example of a fingerprint on one of these small vessels coming from a young child (Williamson 1998 , *per. comm.*). There is the potential that these pots are not the work of young hands, and though this would affect my final interpretations, it does not negate the important role children may have had in ceramic manufacture. If adults were making these pots for children, and were making them in a certain fashion, either distinct or similar to their own pots, they were doing so with the child in mind. Much ethnographic work has been done on the socialization process, and these pots, if indeed produced *for* children, could be used as a tool to discern what these processes were in Huron society.

The function(s) of these pots is unclear. There is evidence from the ethnohistoric record that small pots were used by menstruating women to prepare and consume their

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David Riddell (1981) wrote a paper which examines a number of references made to juvenile pots in site reports, and the like.

foods (Wrong 1968:67). Tuck also suggests that these pots could be a part of dream bundles[10], which would imply a religious significance (Tuck 1971: 40). They may have also been used as toys, as this is one of their common appellations. As such, it is then possible to consider them tools for socialization (Kenyon & Arnold 1985), for toys are often used as learning materials. As well, because this craft was necessary to Huron subsistence practices, it would have been necessary to learn how to make pots at some point. Childhood seems to be a logical time, and as children were given other tasks to learn (Wrong 1986:133), it is safe to assume pottery manufacture was also one of those tasks. It is impossible to definitely state that these vessels were made by children, however, as will be discussed in Section 4.3, it seems safe to assume that most of them were.

Traditionally, juvenile vessels have been distinguished from "adult" ones based on three subjective criteria: 1) small size[11], 2) crudity in form, and 3) crudity in motif application. Underlying these criteria is the assumption that since the manufacturers

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Dreams were of great importance to the Hurons for they were seen as the soul's voice speaking (Trigger 1987:81). As a result, when a desire was communicated in a dream, the individual, and the community, did all they could to fulfil the desire because failure to do so could result in that individual's death (Trigger 1987:82). Dream bundles were a symbolic way of resolving the desires communicated in a dream (Tuck 1976:41).

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There is no stated average size range for juvenile pots in the literature, however, despite this, there seems to be some consistency in the size categorization. This is undoubtedly an issue that needs to be addressed, but cannot be done within the framework of this study.

were children (assumption #1) and were learners, they had poor motor skills (assumption #2). In addition to poor motor skills, there is an unstated belief that they were "conceptually poor" (assumption #3). This last assumption is apparent because the decorations on the juvenile pots are not incorporated into the adult motif classification schemes. These assumptions and criteria have not been questioned, and therefore have not been objectively evaluated. The juvenile category was defined in opposition to what was considered to be of adult manufacture. The first goal then is to examine these criteria and their underlying assumptions and determine their validity. However, although it is feasible that these vessels have more than one function, my opinion, as stated above, is that the majority are indeed the work of juvenile hands. For the sake of the following discussion, we will make this assumption, but realize that the question of who manufactured these vessels is an issue that will be addressed (Section 4.3).

Perhaps the most telling aspect of juvenile pots is that they have been denied any archaeological significance - they are not even considered part of the analyzable ceramic collections. Aside from a few works which have gone beyond a cursory examination of these pots, nothing is said about their potential contributions to understanding aspects of ceramic manufacturing or even style transmission. Once again, this appears to reflect the biases of the archaeologists who see children as important, but not a significant part of shaping and changing society.

1.4.4 Huron Children

> *The Savages love their children above all things. They are like the Monkeys, - they choke them by embracing them too closely (Thwaites 1896-1901 v.16:67)*

In order to develop some hypotheses about the trends in style acquisition, transmission, and innovation of ceramic manufacture, it is necessary to understand how children were perceived in historic Huron society, and also what freedoms they may have had.

Huron children were well loved, almost excessively so, according to numerous Jesuit accounts. This is perhaps the most well known aspect of the Huron parent-child relationship, because most of the Europeans remarked on it (Thwaites 1896-1901; Wrong 1968; Cranston 1949) . However, there are other aspects of Huron childhood that can be gleaned from the *Jesuit Relations and Allied Documents* (Thwaites 1896-1901), along with other ethnohistoric sources.

We can focus on the theme of love. There is little doubt that the children in Huron society were adored, but perhaps not in the manner the *Jesuit Relations* suggested. It has been said that children were allowed a great deal of free reign, to do what they wanted without the fear of chastisement:

> ...these Barbarians cannot bear to have their children punished, nor even scolded, not being able to refuse anything to a crying child (Thwaites 1896-1901: v.6:155) .

and

> Nevertheless they love their children dearly, in spite of the...fact that they are for the most part very naughty children...and moreover there is no punishment for any fault. For this reason, everybody lives in complete freedom and does what he thinks fit...(Wrong 1968:130-1).

From these above two quotes, it appears that children were indeed given a lot of personal freedom with no fear of censure. The reasons put forth for this are that parents did not scold their children because they (children) are the ones who would provide for them in their old age (Wrong 1968:127) and also because of the fear that they (children) would commit suicide if scolded too harshly (Thwaites 1896-1901 v.14:37).

The Jesuits also recount examples of children being scolded though:

> If it sometimes happen that the children wish to enjoy themselves, and dance some of the dances they have seen danced at their ceremonies, they are immediately chided and reproved very roughly (Thwaites 1896-1901 v.17:163).

and

> "We punish the disobedient," said they. A young girl who would not go to the nets, where her father sent her, was two days without food as a punishment for her disobedience. Two boys, who came late to prayers in the morning, were punished by having a handful of hot cinders thrown upon their heads, with threats of greater chastisement in case the offense were repeated (Thwaites 1896-1901 v.18:173).

There are other examples given in the *Jesuit Relations*, but what these two suggest is that certain behaviours that were deemed unacceptable were not tolerated. So, the Hurons were not *afraid* or *incapable* of reprimanding their children; however, they did give more freedom to their children than the Jesuits found acceptable.

Children were also treated in a manner similar to that of adults. Both adults and children were given a lot of freedom (Wrong 1968:131). Children were also not chastised not only because parents were afraid of offending their sensibilities, but because they were considered an individual "with his or her own needs and rights rather than something amorphous that must be moulded into shape" (Trigger 1987:47). Adults were not criticized in public because it was considered wrong (Trigger 1987:47). There are also other examples, detailed in the *Relations* that tell of the "adultness" of the child. One example tells of a mother explaining her departure to her son, a very young child who could have easily told someone else, but *understood* the danger his mother would have been in had this occurred (Thwaites 1896-1901 v.35:251). Another example tells of a young girl of seven who received a deep head wound, and had to undergo "surgery"; the father of this child told her that she must "have courage", which she did (Thwaites 1896-1901 v.24:201). The point here is not only that the children were quiet and brave, but that the adults expected a certain (adult-like) behaviour from their children. Children may have been officially considered adults as young as eleven years: "Indeed, their parents considered them adults from the age of eleven onwards and abandoned any pretense of authority" (Duff 1985:38). The training of a Huron child also began early. Boys begin to learn how to use the bow and girls are given a little stick which is supposed to prepare them to pound corn (Thwaites 1896-1901 v.67139; Wrong 1968:132-133).

However, children were not treated like adults in every aspect, for one, they were given differential burial treatment. As discussed in Section 1.4.1, infants and young children often received alternative burials: under floors, and alongside pathways. The reasons for this include beliefs about the weakness of the young soul (Thwaites 1896-1901 v.10:145) and the desire to have the soul impregnate women (Thwaites 1896-1901 v.1:263).

All in all, Huron children seem to have grown up in a relatively free fashion, but with definite controls put on their behaviour. Childhood seems to have been a time when children were allowed a certain amount of freedom and fun, but also a time of learning, as is suggested by the tools and implements given to children as soon as they could manage them. This obviously suggests that the adults of that society thought it important to train their children early, but also to leave them some room for exploration, and their own particular manifestations of these skills.

The focus of this section has been on presenting information necessary to understand the social and historical context of children and adults and also to examine the historical situation of juvenile pots. The latter point was necessary because juvenile pots have been differentiated from the rest of ceramic collections within Huron archaeology, and as this differentiation was based on an assumption, it needs to be examined. As well, it is simply impossible to proceed in assessing this category without acknowledging the historical situation that has made it what it is. The former point was discussed in two sections: Huron prehistory and Huron children. The aim in the first

section was to detail the changes that Huron society underwent with the aim of providing the backdrop for later discussions on the roles of children in ceramic manufacture and innovation. This was also the aim of the ethnohistoric discussion on children; but an additional goal here was to demonstrate that children were seen in different ways - not simply idolized, or disdained - which is something that may be reflected in the juvenile ceramics.

1.5 Outline of Chapters

The following two chapters are organized thematically, in order to address two basic goals of this research: refining the category of juvenile pots, and examining what the use of motif elements says about the role of children in prehistoric Huron society. These chapters present the methods created to address the two goals, and report the results of the analyses. The following chapter, Interpretations, will address the issues discussed in the Introduction, and combine them with the results to create an impression of children in Huron society. The final chapter will deal with the larger issues surrounding this study, namely the efficacy of an archaeology of children.

CHAPTER 2

CRITICAL EVALUATION OF THE CATEGORY OF JUVENILE POTS

Vessels have traditionally been placed in the category of juvenile pots based on essentially three criteria: 1) small size; 2) crudity in form; and 3) crudity in motif application. These criteria reflect the assumption that children make crude pots because they have poorly developed motor skills. This chapter presents the methods and results of the three measures created to evaluate this assumption. These measures are the Crudity Index, the Curvature Consistency Index, and the Motif Application Index. The goals of these measures are 1) to provide a classification system sensitive to the variability within the category of juvenile pots and 2) to gain an understanding of the skill level of these potters.

2.1 Methods

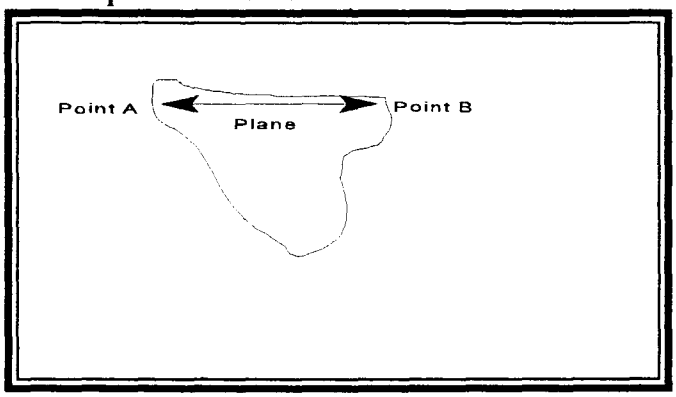
2.1.1 Crudity Index

The Crudity Index examines the construction of the vessel by taking a ratio of the thickest to thinnest side of the vessel wall. The closer the ratio is to one, the finer the manufacture of the pot.

Two techniques are used to obtain the Crudity Index, depending on whether the vessel is whole or fragmented; for a shard (Figure 2.1), thickness measurements are taken by selecting two points (point A and then at point B) on the edges of the vessel wall.

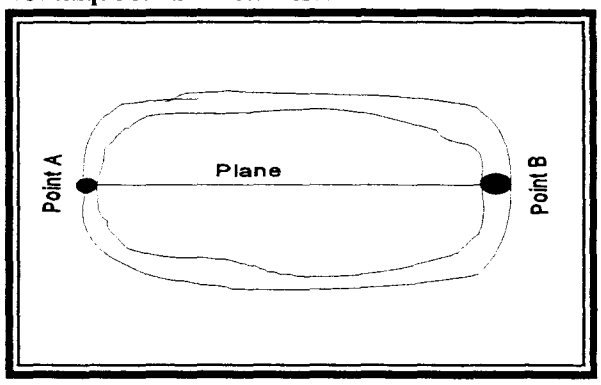
These two points must meet the following criteria: 1) point B must be on the same plane as point A and 2) point B must be on the opposite side of the shard edge from point A. These points can be chosen from any zone on the vessel, i.e., measurements can be taken from the rim, the body, the shoulder...; the importance is in selecting a location that meets the above criteria, for this yields a more accurate reflection of the intended thickness (i.e. different zones may purposefully have different degrees of thickness). Once the points have been selected, calipers are used to measure the thickness of these points.

Figure 2.1: Crudity Index Measurement Technique for Shards



Much the same procedure is used for a complete vessel; the main difference is in where the measurements are taken. With a complete vessel, only the rim can be measured, so measurements are not taken from the edges of the shard (as there are no broken edges), but from the top (see Figure 2.2). Two points on the lip are chosen and they must meet the criteria listed for measuring a

Figure 2.2: Crudity Index Measurement Technique for a Whole Vessel



shard. Thickness measurements are then taken by using calipers to measure the inside and outside wall of the lip.

C.I. measurements are taken for each vessel that exhibits an intact exterior and interior wall. Without either or both of these characteristics, it is impossible to obtain an accurate thickness value. Once all the possible thickness measurements have been taken, the Crudity Index is determined for each vessel by dividing the thicker value into the thinner value (Crudity Index= t/T)[12].

When all the Crudity Indices for a site have been determined they are grouped into three categories: Crude, Fair, and Fine. Each category is taken to represent motor ability. The selection of which ratio was considered Fine, Fair and Crude was based on the degrees of proximity of the ratios to 1.0; the closer the ratio to one, the less difference there is in each thickness measure, and therefore the greater the exhibited skill of the potter. The Fine category includes a range of ratios which are fairly close to one (0.81-1.0), which is indicative of a high level of motor ability. The Fair (0.61-0.80) category then represents an adequate ability, and finally, the Crude (0 - 0.60) category reflects poor motor skills. Although, as mentioned, these categories are taken to represent motor ability, they are arbitrary. For example, the Crude category, which includes a wide range of ratios, could reasonably be separated into two or three more categories. However, I

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t = Thin
T = Thick

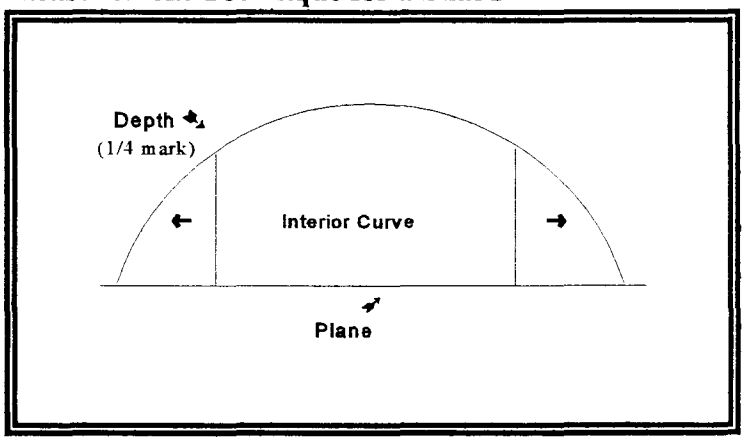
believe these groupings would only create more precise *levels* of crudity, and not represent qualitatively different motor skills.

2.1.2 Curvature Consistency Index

The Curvature Consistency Index (C.C.I.) is also an evaluation of the overall construction of the pot, but focusing on the curve of the vessel wall. It is another index created to determine if poor motor skill is a characteristic of the juvenile pot category.

Once again, two techniques are employed, depending upon whether the pots were a whole vessel, or a shard.

Figure 2.3: Curvature Consistency Index Measurement Technique for a Shard



The C.C.I. for a shard is obtained by first placing the shard, edges down, on a flat surface, usually a long and wide ruler, and measuring the length of the interior curve (curve on the inside of the pot) and then determining the one quarter mark in from either end (Figure 2.3). Once this is done, depth measurements are taken, with a caliper, for these

two points by measuring from the plane (the ruler) to the top of the interior curve. The ratio is then determined, yielding the Curvature Consistency Index[13].

If the vessel is complete, it is placed upright on a table, a ruler is then placed, edge down, anywhere on the opening of the vessel (Figure 2.4); the ruler can be placed anywhere on the mouth of the vessel because the two depth measurements are divided to obtain a ratio. The ruler creates a plane from which to take depth measurements.

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The formula for determining the location from which to take the D values is LD=L/4, where LD is Location of Depth, D is Depth and L is Length. The formula for the Curvature Consistency Index is then C.C.I. = D^1/D^2 *if* D^1 is a lower value (shallower) than D^2, otherwise the formula is C.C.I. = D^2/D^1. An example of these formulas is the following:

The length of the interior curve of the vessel was determined to be 57 cm (L=57). The procedure to determine the C.C.I. was followed:

<u>Step 1</u>

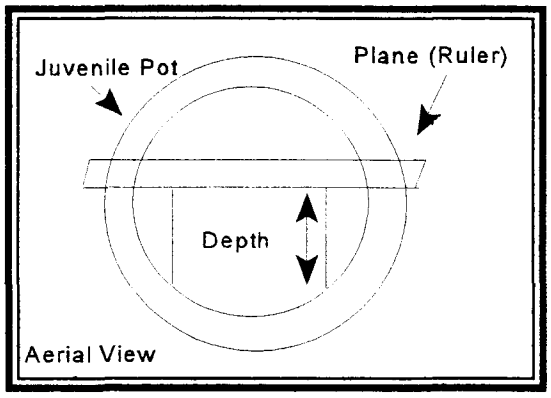
D= 57/4 *So, both depth values are at 14.25 cm, meaning that this is the point*
= 14.25 cm *from which the measure is taken in from either edge of the vessel.*

The depth values were then determined to be D^1 =10.5 cm and D^2 = 8.5 cm.

<u>Step 2</u>

C.C.I. = 8.5/10.5 *So, the C.C.I. is 0.81, which then translates into the Fine category.*
= 0.81

Figure 2.4 Curvature Consistency Index Measurement Technique for a Complete Vessel



The steps that the yield the C.C.I. follow the same process as for the C.I. explained above. Curvature Consistency Indices can only be determined for those pots that have an intact interior curve, i.e. not eroded, and are not castellated. The eroded interior curve obviously does not present the original curve and castellations are purposefully moulded sections of the rim which follow a different curve than the rest of the vessel. As well, there were a few vessel shards that appeared to be flat (or whose depth was shallow) so these were not measured. These shards may have been purposely designed in such a manner[14], but whether or not this was the case, the C.C.I. could not be attained, so they were not included in the sample.

As with the C.I., the pots are grouped into three categories - crude, fair, and fine. Ratios that fall within the range of 0.81-1.0 are put into the fine category; those that fall within the range of 0.61-0.80 are put into the Fair category; and finally, those which fall below 0.60 are put into the Crude category.

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Perhaps this was a preliminary step: learn how to mold the vessel walls, then learn how to curve the vessel.

2.1.3 Motif Application Index

The Motif Application Index (M.A.I.) assesses the motor skills of the potter in reference to the application of motifs. Unlike the above two indices, the M.A.I. is more qualitative than quantitative; however, it does provide a specific means by which to examine motif application; it breaks down the application of motifs into specific qualities, and examines each. These characteristics are: 1) consistency in impression depth (i.e. were all the motif elements pressed equally deeply); 2) relative length of motif elements; 3) width of motif elements; and 4) spacing of motif elements (were they systematically spaced in relation to each other). Each of these is given a numerical evaluation of 1-3, ranging from crude to fine respectively. The numerical value for all four characteristics are then tallied, and divided by four, yielding the Motif Application Index[15] (M.A.I. = D+L+W+S/4).

For each of the four characteristics defined above, decisions as to what is crude, fair or fine are made by subjectively evaluating each individual element in relation to the others on the vessel. So, for example, when evaluating the relative length of motif elements, if each individual element on a specific vessel is of roughly the same length, then this characteristic is given a numerical evaluation of three, representing the "fineness" in application. In order to calculate the M.A.I., each vessel must exhibit a

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15 The letter values for this formula are D= Impression Depth; L=Relative Length; W=Relative Width; S=Spacing of Elements

pattern, i.e. must have a repetition of elements. If the vessel is plain, or does not have a repetition of elements, then it is not possible to compare elements in relation to each other and therefore impossible to obtain a M.A.I. It was not always possible to assess all four characteristics, so not all vessels have a numerical evaluation for each of the four characteristics defined above, and therefore are not included in the final assessment.

Once the M.A.I. has been determined for each vessel, they are grouped into three arbitrary categories, roughly corresponding to different levels of motor skill. These levels are Crude (1.0-1.5); Fair (1.6-2.5); and Fine (2.6-3.0). Any vessels which do not have a numerical evaluation for each of the four characteristics defined above, are not included in this final grouping.

2.2 Results

2.2.1 Crudity Index[16]

The results from the Crudity Index (Table 2.1) indicate that the juvenile pot achieve a consistent vessel wall thickness. The majority of the vessels fall within the Fine range and, as can be seen from the range in the means (0.86-0.90) and the standard deviation (0.07-0.11), there is not much variation between the sites; as well, all means fall within the Fine range. This indicates that the pots were finely manufactured, and not crude as stated in the traditional criteria.

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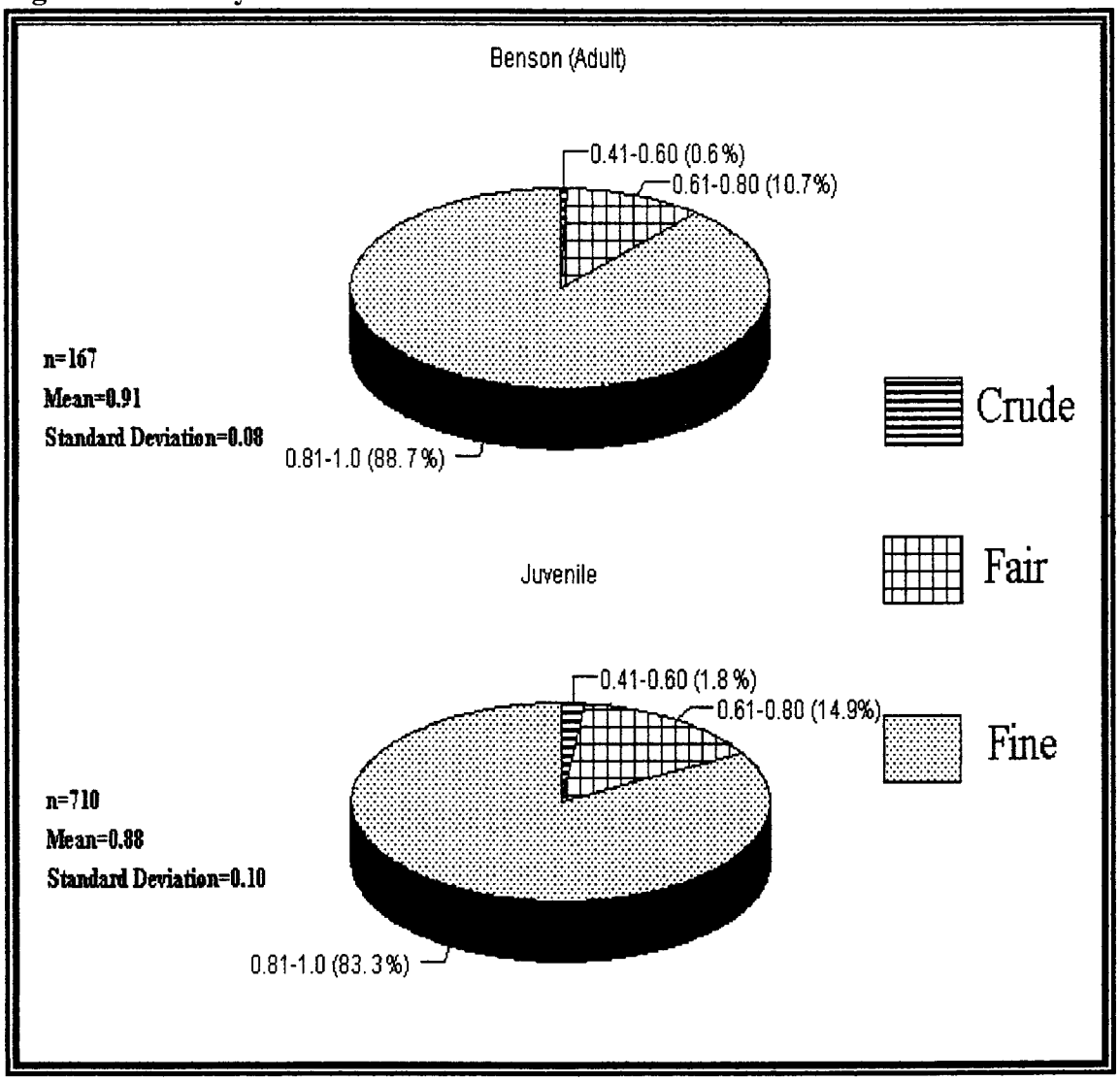
[16] See Appendix A for raw data.

Table 2.1 Crudity Index Frequency Distribution Table: Juvenile & Adult Pots

Site		0-0.20	0.21-0.40	0.41-0.60	0.61-0.80	0.81-1.0	Mean	STD
Barrie	#				2	30	0.89	0.10
n=32	%				6.3	93.8		
Wiacek	#				7	66	0.90	0.07
n=73	%				9.6	90.4		
Carson	#			6	35	125	0.86	0.11
n=166	%			3.6	21.1	75.3		
Hubbert	#			1	11	70	0.89	0.08
n=82	%			1.2	13.4	85.4		
Dunsmore	#			3	26	129	0.88	0.09
n=158	%			1.9	16.5	81.6		
Dougall	#			1	14	104	0.89	0.09
n=119	%			0.8	11.8	87.4		
Molson	#			2	11	67	0.88	0.09
n=80	%			2.5	13.8	83.8		
Benson (adult)	#			1	18	148	0.91	0.08
n=167	%				10.7	88.7		

The adult pots from the Benson collection also exhibit a consistency in vessel wall thickness (Table 2.1), with 88.7% of the pots falling within the Fine range. Therefore, when compared with the juvenile pots from all the sites, the difference between the two distributions is minimal (Figure 2.5). The majority of juvenile pots fall in the Fine range,

Figure 2.5 Crudity Index: Adult and Juvenile Pots



83.3%; while with the adult pots, the frequency is 88.7%. The means of the two pot types are also very close, 0.91 for the adult and 0.88 for the juvenile pots respectively. The standard deviations are also very close with 0.08 and 0.10 for the adult and juvenile pots respectively.

2.2.2 Curvature Consistency Index[17]

The result of this grouping is detailed in Table 2.2. Once again, the bulk of the vessels fall within the Fine range; so the quality of construction is fairly high.

As Table 2.2 demonstrates though, the level of construction is not as high with the juvenile C.C.I.'s as with the juvenile C.I. (see Table 2.1). Only 46.2% of the C.C.I. values fall with the Fine range (see Figure 2.6), and nearly as many pots fall within the Fair range, 40.6%. In comparison with the C.I. then, there are fewer vessels within the Fine range, but more within the Fair range. This suggests that curve of the pot was not as easily constructed as was the vessel wall thickness. However, it is important to note that there is still a fairly high consistency in fine vessel manufacture, which suggests that constructing a smooth curve was possible.

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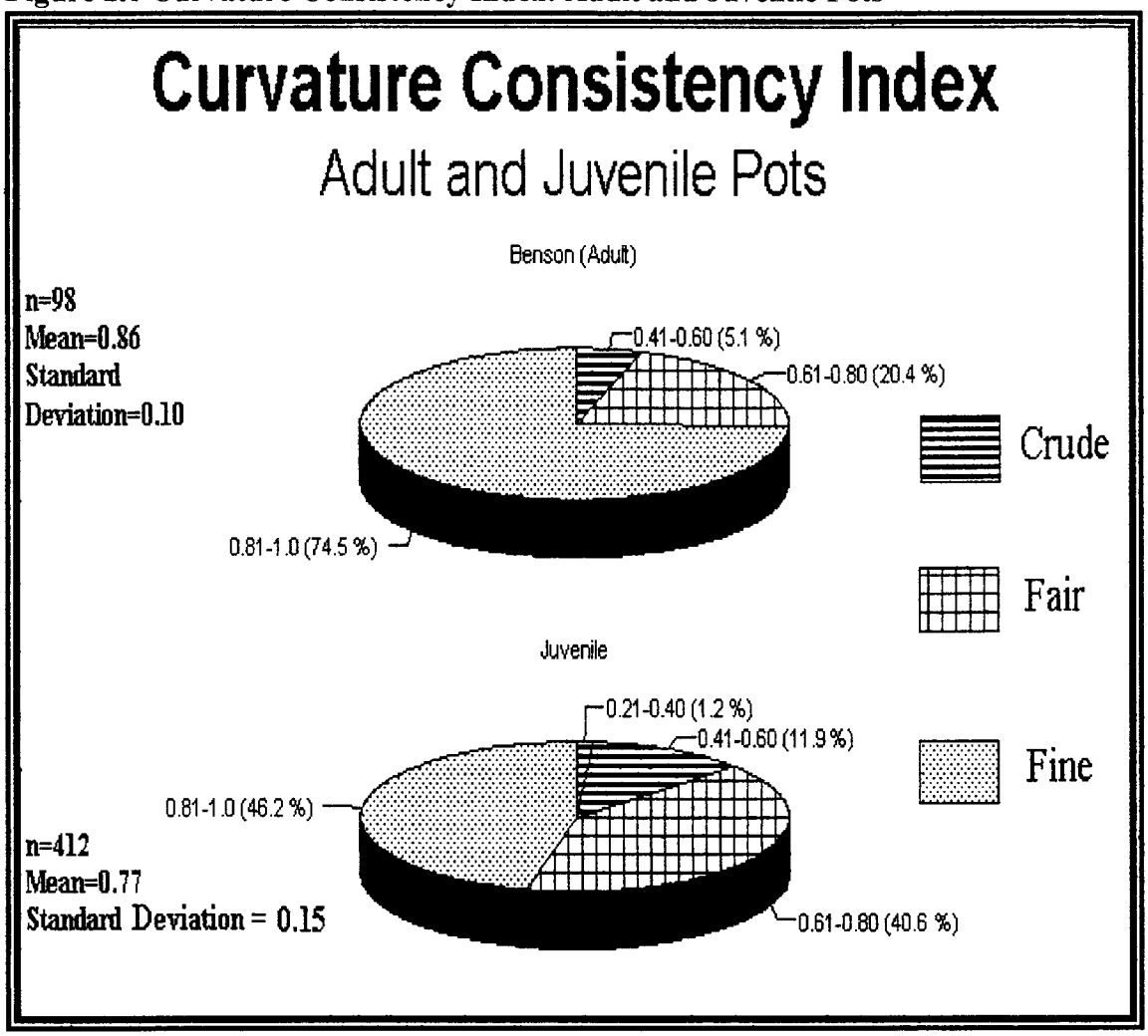
[17] See Appendix A for raw data.

Table 2.2 Curvature Consistency Index Frequency Table: Juvenile & Adult Pots

Site		0-0.20	0.21-0.40	0.41-0.60	0.61-0.80	0.81-1.00	Mean	STD
Barrie	#				6	8	0.84	0.10
n=14	%				42.8	57.1		
Wiacek	#		1	4	15	17	0.76	0.17
n=37	%		2.7	10.8	40.5	45.9		
Carson	#		1	13	41	43	0.77	0.15
n=98	%		1.0	13.3	42.0	44.0		
Hubbert	#		1	5	18	21	0.77	0.15
n=45	%		2.2	11.1	40.0	46.7		
Dunsmore	#	1	1	16	44	46	0.76	0.16
n=108	%	0.9	0.9	14.8	40.7	42.6		
Dougall	#			10	28	26	0.76	0.14
n=64	%			15.6	43.8	40.6		
Molson	#		1	1	16	29	0.82	0.12
n=47	%		2.1	2.1	34.0	61.7		
Benson (adult)	#			5	20	73	0.86	0.10
n=98	%			5.1	20.4	74.5		

There is a discrepancy in the C.C.I. frequencies between the juvenile pots and the adult pots from the Benson site. As seen in Figure 2.6, 74.5% of the Benson vessels fall

Figure 2.6 Curvature Consistency Index: Adult and Juvenile Pots



in the Fine range, as compared with the 46.2% representing the finely curved juvenile vessels.

What is suggested by the difference in percentages is that the makers of the juvenile pots were not as capable of forming as fine a vessel as were those who made the large pots. Once again though, the similarity between these two percentages should be noted: the *preponderance* of the vessels, both adult and juvenile pots, are finely curved.

2.2.3 Motif Application Index

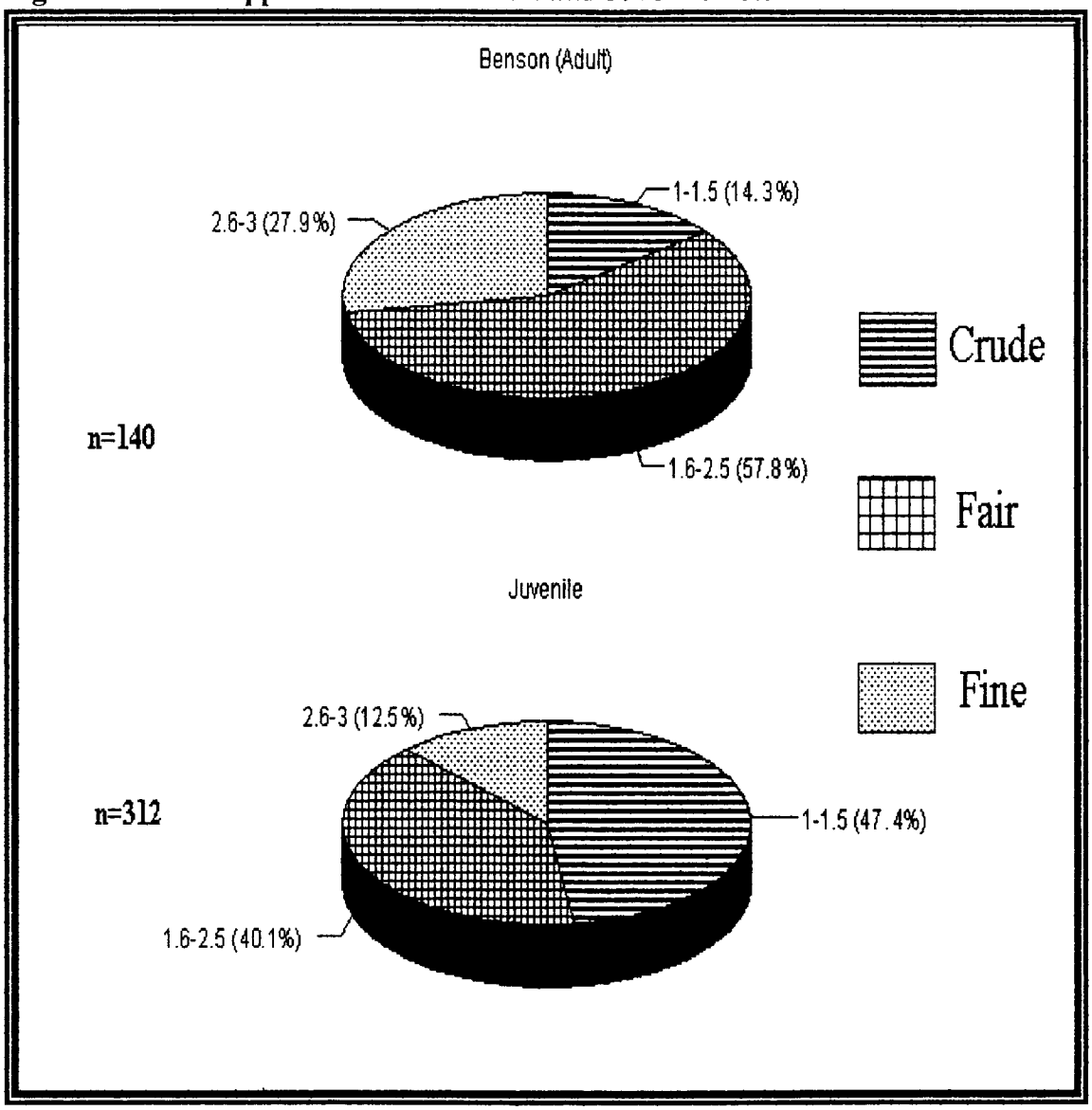
The results of this grouping indicate that the M.A.I. is not very high (Table 2.3). The majority of the pots, 47.4%, fall within the Crude range, and following closely is the Fair category, containing 40.1% of the vessels.

Table 2.3 Motif Application Index Frequency Distribution Table: Juvenile and Adult Pots

Pots		1-1.5	1.6-2.5	2.6-3
Juvenile	#	148	125	39
n=312	%	47.4	40.1	12.5
Benson (Adult)	#	20	81	39
n=140	%	14.3	57.8	27.9

When these figures are compared with those from the Benson site adult collection there is a difference (Figure 2.7). Unlike the juvenile vessels, 57.8% of the adult vessels fall into the Fair range. So, it can be clearly stated that the motif elements on adult pots are

Figure 2.7 Motif Application Index: Adult and Juvenile Pots



better applied than on juvenile pots. However, it can also be said that the standard for motif application is not very high, since the majority of the adult pots only achieved a Fair evaluation.

2.3.4 Size

Size is a problematic criterion, for it appears appropriate, in that all the pots within the juvenile category are small; however, whether size is a result of poor motor skills is not apparent. As demonstrated above, the majority of pots are well formed, therefore suggesting that size is not a result of poor motor skills. Although the small size of these vessels will be discussed at greater length in section 4.0, a few interpretations are here offered. If these are juvenile pots then:

- some pots are well formed *because* they are small - i.e. if they were larger, children would not have been able to produce fine pots
- the small size is indicative of the amount of clay given to a child while learning the craft - parents would not give a large amount of clay for an unserviceable vessel

or:

- the small size is indicative of a special function

2.4 Summary

The three traditional criteria that formed the basis of this analysis have been found to be partially correct. Through the use of the re-evaluated criteria, I found that the

underlying assumption that it is children who made small, crude pots has some substance. The Crudity Index found that the vessel walls were evenly constructed; however the results from the Curvature Consistency Index spoke of the inability of individuals to regularly form well curved pots. The final measure of motor ability, the Motif Application Index, also pointed to crudity in manufacture. So, when compared to the adult pots, the juvenile pots yield comparable results only in the C.I. measure; with the other two measures, juvenile pots are not as "well" made as the adult pots. What this suggests then, is that, for the most part, juvenile pots are crudely manufactured, in that two of the three re-evaluated criteria point to crudity. What this further suggests then is that the underlying assumption of poor motor skills is basically true.

The goals of this chapter were to: 1) provide a classification system sensitive to the variability within the category of juvenile pots; and 2) to gain an understanding of the skill level of these potters. Both of these goals were achieved through the application and results of the three measures detailed above. The next aspect of this research is to find out what these pots say about the role of children in Huron society. To do this, I will now turn to studying stylistic trends.

CHAPTER 3

STYLISTIC TRENDS

The purpose of this section is to assess the role of children in ceramic innovation within the context of Huron society. The Design Conception and Motif Element Analysis were used to determine whether children had an active role in maintaining or creating styles. Design Conception and the Motif Element Analysis focus on:

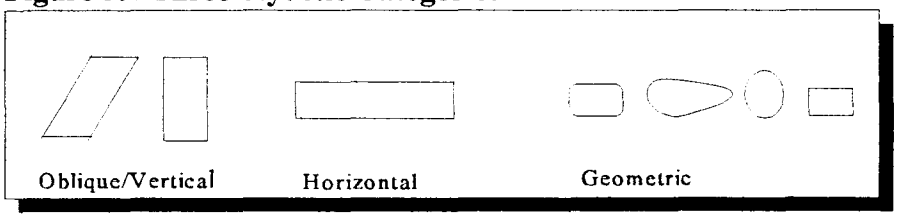
- defining analyzable stylistic units for comparison
- assessing the stylistic conceptualization of juvenile pots
- elucidating the process of style transmission, i.e. learning patterns

Each of these goals works together to produce an understanding of ceramic innovation; however, they also work separately to provide a greater comprehension of what the child potters were doing.

The key to achieving the above purpose and goals is finding a way to make the pots "speak". One obvious way is to focus on style, on the designs placed on the pots. However, to understand what the pots are "saying", the designs must be translated. The way I have chosen to translate them is through the use of the *motif element*. A quick glance through any number of books on style (Marois 1984; DeBoer 1984; Conkey & Hastorf 1990) illustrates how many different descriptive terms are used interchangeably to explain or conceptualize aspects of a design. I use the term *motif element* to mean the

elements which make up a motif; so, if a motif was broken down into its constituent parts, for example, each element would be called a *motif element*. Motif elements were chosen over motifs because they provide a good way to gauge creativity and influence. This is because *elements* are small stylistic units. By examining only motifs the potential to see variation over time is reduced. Motifs are combinations of elements; the combinations obscure, to some extent, the importance of the individual elements. By looking at these elements, it is possible to note more easily changes in their use over time - it is easier to trace them temporally. As well, because elements are a small stylistic unit, it is once again easier to make note of a variety of elements. Of course, some individual innovations were not accounted for, because of my classification process. However, for the most part, only three stylistic categories became obvious, the *Oblique/Vertical*, *Horizontal*, and *Geometric* categories (see Figure 3.1). The first category was combined because the difference between them was not always obvious, and conceptually the importance of these elements seemed to be the upright inclination, compared to the horizontal inclination.

Figure 3.1 Three Stylistic Categories



The distinction between the last two categories was made based on length to width proportions: those elements which were longer than they were wide, were considered *Horizontal*; those elements which were more squat, wider than long, or oddly circular, were classified as *Geometric*.

Although style is one way of making the pots "speak", without a diachronic perspective, it is not enough. This perspective allows for style trends to be discerned, which makes it possible to see what role the juvenile pot makers had in stylistic innovation and transmission.

3.1 Methods

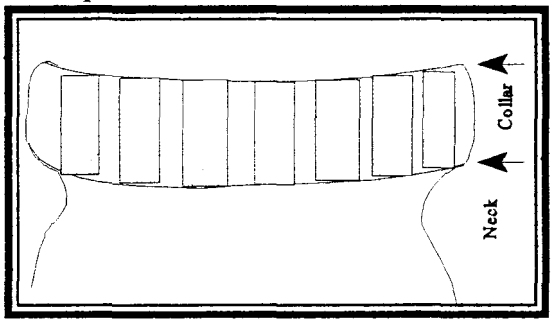
3.1.1 Design Conception

The Design Conception is a measure of the complexity in motif element production. It encompasses both the goals of refining juvenile pots, as discussed in Section 2.0 and assessing the role of children in ceramic innovation, because it focuses on the *conception* of design. An underlying assumption in the three traditional criteria is that children not only make crude pots, apply designs crudely, but also have a poor conception of design. The purpose of the Design Conception then is to evaluate if children are perceptually unskilled, much like they have been assumed to be unskilled in motor abilities. The Design Conception has been further subdivided into Number of Motif Elements and Location Confinement to address two different aspects of the design conception of Huron pots. The Number of Motif Elements (N.M.E.) examines

complexity of design by counting the number of elements applied on a vessel, whereas the Location Confinement (L.C.) discerns complexity through the evaluation of the degree of confinement of elements to their assigned zones (i.e., do the elements applied to the collar stay within the bounds of the collar). The premise behind Location Confinement is that pots which exhibit a good zonation of elements represents the work of a potter who can conceptually segregate elements. The N.M.E. works on the premise that a high degree of skill and organization is necessary to combine a number of motif elements. Together, both the N.M.E. and L.C. work to form an impression of the level of conception of design of the potter.

To determine the N.M.E. of a particular vessel, a count is made of each stylistic category. If the vessel has an element from each of the categories, that is, one from the *Oblique/Vertical*, *Horizontal* and *Geometric* categories, the N.M.E. would be three; however, if there are two *Horizontal* motif elements and one *Geometric* element present, the N.M.E. would be two. There are no restrictions to calculating the N.M.E., because even if the vessel is plain, the N.M.E. would simply be zero. The range for N.M.E. is 0-3, corresponding with the three stylistic categories, so once the N.M.E. is calculated for each vessel, the frequency of vessels falling anywhere from 0-3 is determined.

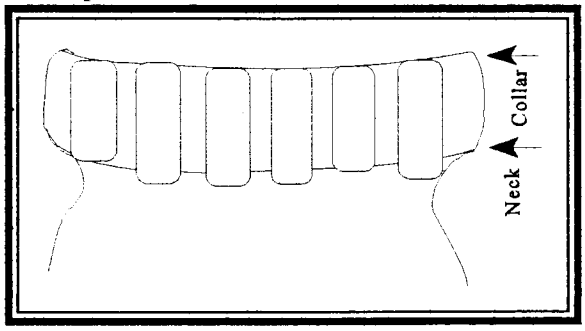
Figure 3.2 Location Confinement: Fine Example



The Location Confinement of the elements was rated on the 1-2-3 scale used

in the indices discussed in Section 2.1, where "1" is Crude and "3" is Fine. If the elements were confined to their location, that vessel would be given a numerical evaluation of three (Figure 3.2); however, if the motif elements exhibited on a particular vessel were outside their zone, that vessel would get a numerical evaluation of one (Figure 3.3). This evaluation is subjective, in that the degree of confinement is a *judgment* made by evaluating how well within the bounds of the zone the motif elements are. Once the L.C. has been calculated for each vessel, the frequency of vessels within the 1-2-3 scale is calculated. The only restriction to determining the degree of confinement is if the vessel is plain. Not all plain vessels are included in this final analysis, so, the sample size for each site decreases respective to the number of plain pots.

Figure 3.3 Location Confinement: Crude Example



3.1.2 Motif Element Analysis

The Motif Element Analysis was designed to assess the relationship of small pots to style acquisition and transmission: if children were indeed making these pots, were they learning specific designs, or were they creating their own; how was this learning process exercised, i.e. did the adults actively train them, or were the children allowed free reign? These questions can be encompassed in one question: what learning patterns were in

place? The Motif Element analysis addresses this issue by focusing on the comparison of stylistic trends over time between adult and juvenile pots. If there is evidence of juvenile pots having a certain element after the adult pots have shown it (i.e. if children lag in the adoption of certain elements, or execute the same designs as adults), then a conclusion can be made that children were heavily influenced by adults. However, if the reverse is seen, with juvenile pots leading in certain element employment, then a possible conclusion is that children were innovators in ceramic design. Both these patterns have implications for the learning pattern in place; an informal system would work with both patterns, but a pattern of design lag would suggest a greater stress on learning certain elements.

Two techniques are used to analyze the motif elements, one for the juvenile pots, and another for the adult pots. The first step for juvenile pots was to group the elements on the juvenile pots into the three stylistic categories detailed in Section 3.0. This was done by noting which elements appeared on which pots, and then placing each element into a category. If all three motif elements appeared on one pot, that pot would be counted three times - once in each category. The reason for this is that I was concerned to know *which* motif elements are applied, not which *pot* contains these elements, the object was to produce a comparison between the relative frequency of motifs on juvenile pots. The only pots left out of this tabulation were those without a design, i.e. plain.

Once all the juvenile pots at each site were put into the appropriate categories, the frequency for each element was obtained and compared with other juvenile pots at different sites, and also to the adult pots.

The adult pots were placed in these same stylistic categories, but a different process was followed because information on adult pots was obtained from published reports, not by first hand observation. Also, *the* consistent classification system used for these adult pots was the MacNeish Typology. This system separates pots according to *types*, which are combinations of elements that have a spatial or temporal importance (Ritchie 1949:97). Within each type are a number of variations and each of these variations may incorporate elements that I have classified separately. For example, I know that at the Barrie Site (AD 1280- AD 1330) 85 of the adult vessels fall within *Ontario Horizontal (OH)*, one of MacNeish's types. I also know that among the *OH* variants are the three stylistic categories I have created for the juvenile pots (*Oblique/Vertical*, *Horizontal*, *Geometric*). However, what I do not know is which of these variants make up the *OH*'s at the Barrie site. The way I dealt with this was to determine which elements were present in all of the variants, and count only those elements. For example, among the pots typed as *OH*, only *Horizontal* elements are consistently present, so only *Horizontal*s are counted; the *Geometric* and *Oblique/Vertical* elements were disregarded because they were not present in all of the variants. In this manner, I was able to provide frequencies for adult vessels comparable to those of the juvenile pots. This method does potentially underrepresent the frequencies of adult motif elements; however, there is no one element

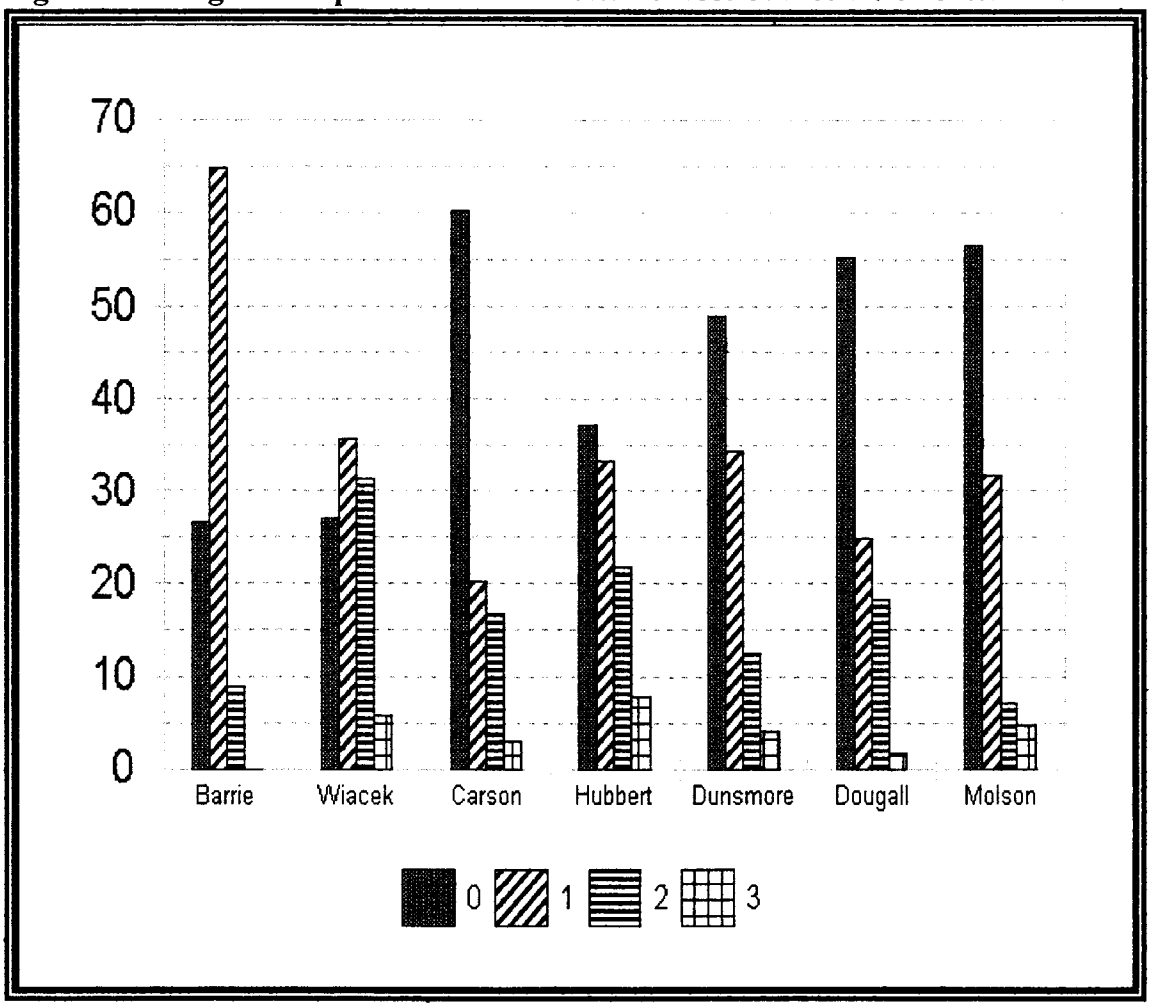
that is typically being underrepresented over another, and this method can be applied consistently over time to permit temporal comparisons.

3.2 Results

3.2.1 Design Conception

The results of the Number of Motif Element count show a general increase in plain

Figure 3.4 Design Conception: Juvenile Pots: Number of Motif Elements: All Sites



vessels, over time; along with a general decrease in vessels with one motif element, over time (Table 3.2 and Figure 3.4). Percentages detailed in Table 3.3 indicate that the bulk (45.5%) of juvenile vessels, from all sites, were plain. However, equally important to note is that when they were decorated, 33.8% of the vessels incorporated only one motif element. When compared with the adult pots from the Benson site collection (Table 3.3), we can see that the majority (49.2%) of these pots had only one motif element. The conclusion that can be drawn from this result is that decorated pots, for both the adult and juvenile pots frequently incorporated only a single element (i.e. there is no suggested difference between juvenile and adult pots when comparing the most likely number of elements to be applied).

Table 3.2 Design Conception: Number of Motif Elements Frequency Distribution Table

Site	Date		0	1	2	3
Barrie	AD 1280-AD 1330	#	9	22	3	0
n=34		%	26.5	64.7	8.8	0
Wiacek	mid-late 14th c.	#	19	25	22	4
n=70		%	27.1	35.7	31.4	5.7
Carson	early 15th c.	#	125	42	35	6
n=208		%	60.1	20.2	16.8	2.9
Hubbert	AD 1450	#	29	26	17	6
n=78		%	37.2	33.3	21.8	7.7
Dunsmore	mid-late 15th c.	#	74	52	19	6
n=151		%	49.0	34.4	12.6	4.0
Dougall	AD1550-AD 1649	#	69	31	23	2
n=125		%	55.2	24.8	18.4	1.6
Molson	AD 1580	#	48	27	6	4
n=85		%	56.5	31.8	7.1	4.7
Benson	AD 1550 - AD 1600	#	16	93	67	13
n=189		%	8.5	49.2	35.4	6.9

Table 3.3 Design Conception: Number of Motif Elements Adult and Juvenile Comparison

Category		0	1	2	3
Juvenile n=759	#	345	257	127	30
	%	45.5	33.8	16.7	4.0
Benson (Adult) n=189	#	16	93	67	13
	%	8.5	49.2	35.4	6.9

The second Design Conception test was the Location Confinement analysis. The results can be seen in Table 3.4. The majority of the juvenile pots (68.0%) are confined to the location in which they were placed; when compared with those adult pots from the Benson site, we can see that 91.5% of those pots are well confined. The first observation that can be made is that juvenile potters were not as proficient at conceptualizing element placement as were the adult potters. This can be seen in the marked differences in percentages, 91.5% and 68.0%, of adult and juvenile pots respectively. However, as is attested by that 68.0%, juvenile potters were obviously capable of conceptualizing element placement to a high degree.

Table 3.4 Design Conception: Location Confinement Adult and Juvenile Comparison

Category		1	2	3
Juvenile n=334	#	33	74	227
	%	9.9	22.1	68.0
Benson (Adult) n=141	#	1	11	129
	%	0.7	7.8	91.5

3.2.2 Motif Element Analysis

Figure 3.5 and Table 3.5 indicate that the majority of the juvenile vessels used the *Oblique/Vertical* motif element, with a representation of 50.7%. The *Horizontal* category has a frequency of 30.0%, while the *Geometric* has a frequency of 19.5%.

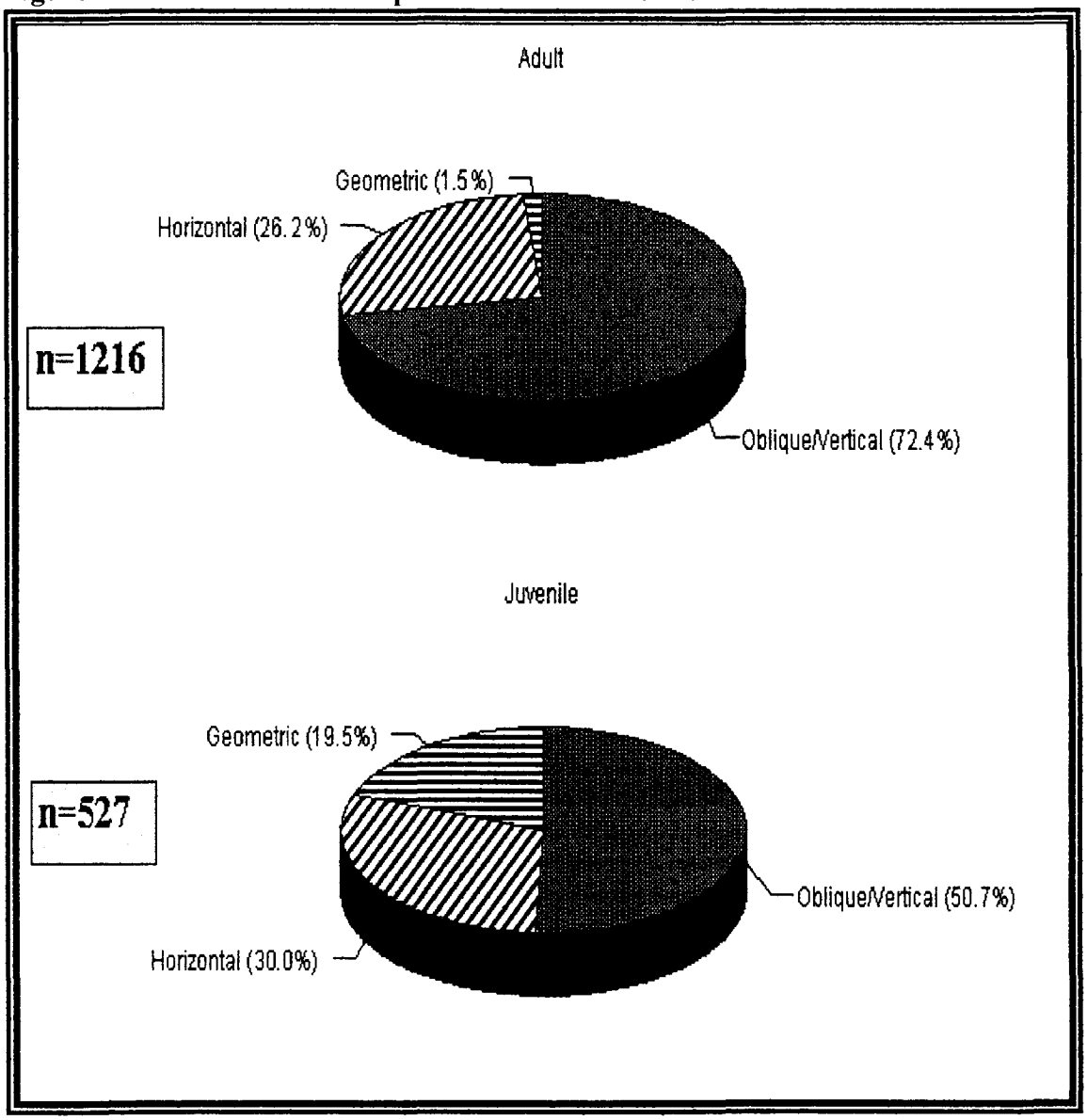
Table 3.5 Motif Element Comparison: Juvenile and Adult Pots

Category		Oblique/Vertical	Horizontal	Geometric
Juvenile n=527	#	267	157	103
	%	50.7	30.0	19.5
Adult n=1216	#	880	318	18
	%	72.4	26.2	1.5

The results for the adult pots are similar to those of the juvenile pots: the *Oblique/Vertical* category had the highest frequency (72.4%) and the frequency of *Horizontal* elements was essentially the same as the juvenile pots (26.2% as compared to

30.0% respectively). The *Geometric* element was not as popular on adult pots, appearing only 1.5% of the time, in comparison with 19.5% for the juvenile pots. There are probably a number of reasons for this discrepancy, but one reason for this may due to the

Figure 3.5 Motif Element Comparison: Adult and Juvenile Pots



sampling method for *elements* on adult pots. The chance of detecting this element was greatly reduced because I had to depend on published reports, and not on the actual artefacts themselves (as discussed in Section 3.1.2). Despite this sampling bias though, of MacNeish types present in each assemblage, not many of their variants actually had *Geometric* elements. The greater preponderance of *Geometric* elements on juvenile pots may reflect the experimentation with "new" tools - i.e., determining what can be done with different implements. By adulthood, this fascination with tools would have passed, leaving only a few desired *Geometric* elements. However based on these results, only two stylistic categories were pursued in more detail, *Oblique/Vertical* and *Horizontal*. The *Geometric* category was not included in the analysis of stylistic trends because its frequency on adult pots was too low to provide a comparable sample.

3.2.3 Horizontal and Oblique/Vertical Elements

As mentioned earlier in this chapter, the purpose of the motif element analysis is to assess the role of children in style acquisition and transmission, specifically through the analysis of *Horizontal* and *Oblique/Vertical* elements, to see if children were innovators in ceramic designs. For children to be considered innovators in ceramic design, one should expect to see this in the pattern of adoption and transmission of motif elements: designs should appear first on children's pots and then on adult pots[18].

18

If new designs appear on children's pots and go no further, all that can be said is

In order to test this hypothesis, I first divided my sample sites into three temporal periods: Early, Middle and Late. The goal was to provide a framework that would elicit basic temporal trends. The divisions were made between Wiacek (mid-late 14th c.) and Carson (early 15th c.) and Dunsmore (mid-late 15th c.) and Dougall (AD 1550 - 1649). These divisions were chosen because they were the most obvious locations for breaks. The early period includes Barrie (AD 1280 - 1330) and Wiacek; the middle period includes Carson, Hubbert (AD 1450), and Dunsmore; and finally the late period is made up of Dougall and Molson (AD 1580). The percentage frequencies for the juvenile and adult pots were then determined for each period. As well, a chi-squared test was conducted to determine statistical significance for both the *Horizontal* and *Oblique/Vertical* elements.

I first examined the *Horizontal* elements, and found the following: the hypothesis of children as innovators was not supported in the analysis of *Horizontal* motif elements. Instead the results suggest the exact opposite. They show that the juvenile pots lag behind the adult pots in the early period, leap forward during the middle period, and maintain their lead into the late period (Figure 3.6). The adult pots decrease in their use of *Horizontal* elements over time. As well, these differences proved to be statistically significant (Table 3.6).

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that children experimented, but that these experimentations were not carried forward.

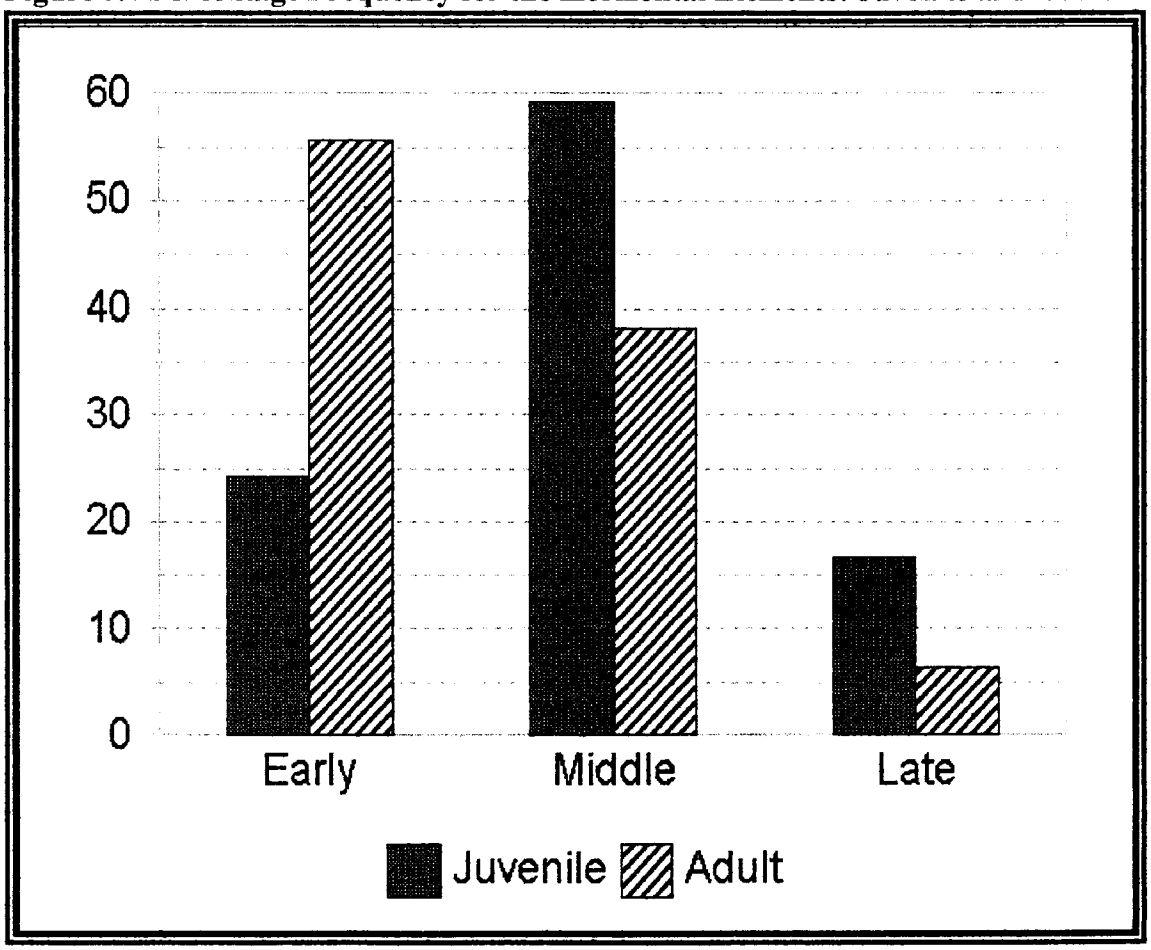
Table 3.6 Horizontal Elements: Chi-Squared Test

Pots		Early	Middle	Late
Juvenile	observed	38	93	26
	expected	*71*	*71*	*15*
Adult	observed	177	121	20
	expected	*144*	*143*	*31*

$x^2 = 45.1$ df = 2 $p < .001$

The first observation that can be made from these results (Figure 3.6) is that

Figure 3.6 Percentage Frequency for the Horizontal Elements: Juvenile and Adults



children and adults design pots differently. During each of these periods, it appears that children and adults were making different decisions as to how to decorate their pots because there is a different frequency of *Horizontal* element use. One reason for this, as suggested by the pattern of the lag and lead, is that the children were being influenced by their grandparents. In the early period adults had a higher frequency of *Horizontal* elements than the children, who were lagging behind. However, during the Middle period, when adults are decreasing their use of this element, children are using it more often. During the late period, both juvenile and adult pots had dwindled in their use of *Horizontals*, but children were slower in relinquishing it. The argument for grandparents having a role in the transmission of the *Horizontal* element can be seen in the rise of its use from the early to middle periods. The adults in the early period, would be grandparents during the middle period, thereby explaining why children surpass the adults in the use of this element during this middle period. As well, the adults in the middle period, would be grandparents during the late period, which would then explain, once again, the greater preponderance of *Horizontals* on juvenile vessels. The lower frequency of *Horizontals* on juvenile vessels during the late period can be partially attributed to the declining use of this motif element on adult pots during the previous period. So, the lag and lead relationship between the *Horizontal* motif element on juvenile and adult pots can be explained as a generational lag. Also suggested by these results is that adults were not carrying over the motif elements practiced in childhood into adulthood.

Before proceeding to the results of the *Oblique/Vertical* motif elements, it is necessary to clarify the above discussion of the three generations: child-parent-grandparent.

The nature of the archaeological record makes talking about individuals difficult, even though they were the ones responsible for the record itself. This difficulty is exacerbated when attempting to explain slowly developing trends. However, it is important to maintain some sort of balance between what may have actually happened (individual actions) and what the archaeologist observes (trends).

In an attempt to account for the trends in motif element adoption and use, I've employed "grandmothers" and the concept of generations as tools to explicate this pattern in humanistic terms. It is important here to distinguish between "grandmothers" and "generations" as real entities and as an explanatory medium. I do not have access to grandmothers and generations as real entities, but do as hypothetical agents elucidating the trends visible in the use of the *Horizontal* elements.

I have used grandmothers as an explanatory tool because of their association with tradition. As older individuals, grandmothers would have had access to older styles, and thereby explain its (style) presence in later periods.

Now, considering the findings with the *Horizontal* motif element, I formulated a new hypothesis: If children were learning from their grandparents, there should be a temporal lag in the acceptance of motif elements in reference to the *Oblique/Vertical* elements.

In order to test this hypothesis I followed the same procedures as I did for the *Horizontal* elements. So, the percentage frequency for the juvenile and adult pots were determined for each of the three periods and a chi-squared test was conducted.

Table 3.7 details the expected and observed frequencies for this element. As can be seen, it is really during the middle period that things change. Juveniles incorporate a greater frequency of *Oblique/Vertical* elements on their vessels than adults during the middle period, and during the late period adults increased their use of this element, while juveniles are using it less often (Figure 3.7). Adults also increase in the use of the *Oblique/Vertical* elements over each period. The differences seen in Table 3.7 are statistically significant.

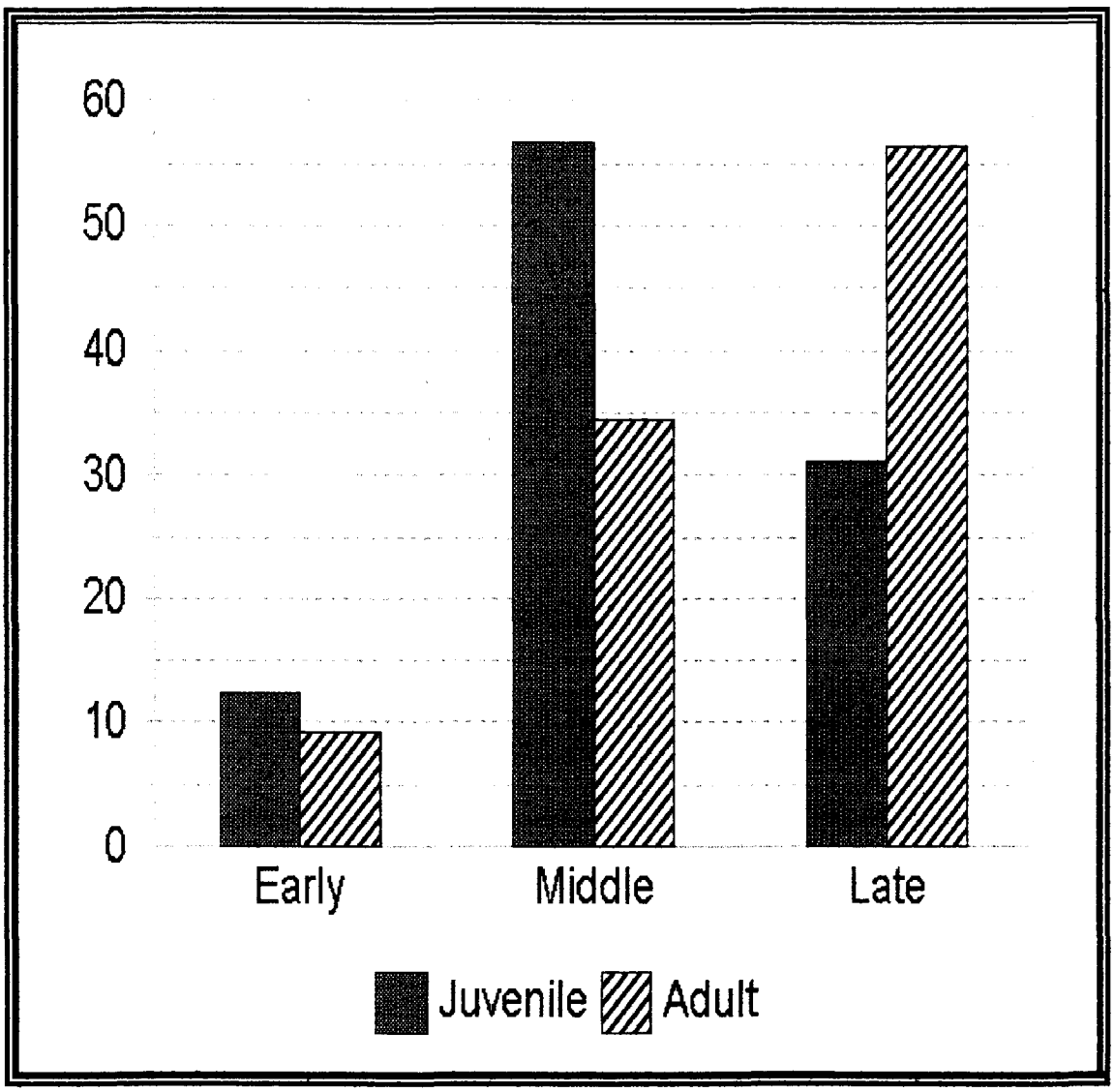
Table 3.7 Oblique/Vertical Elements: Chi-Squared Test

Pots		Early	Middle	Late
Juvenile	**observed**	33	151	83
	expected	*27*	*106*	*135*
Adult	**observed**	81	304	495
	expected	*87*	*349*	*443*

$x^2 = 52.8$ df = 2 $p<.001$

The results of the *Oblique/Vertical* analysis then does not support the second hypothesis, for the same pattern of stylistic influences from the grandparents does not match the lead and lag relationship between the juvenile and adult pots. What seems to

Figure 3.7 Percentage Frequency for Oblique/Vertical Elements: Juvenile and Adult Pots



be happening during this period is that children are leading in the use of this element, and foreshadowing its increased popularity on adult pots in later periods. However, as adults increase their use of this element during the Middle period, so do the children, suggesting that the sphere of influence includes parents as well as grandparents[19]. In the Late period, we see juveniles' use of this element less often, while the adults lag behind. So, it also appears that the motif elements children gleaned from their parents in the previous period, were the elements they perpetuated in the later period, i.e. when they were adults. This is also unlike the case with the *Horizontals*. The elements learned from the grandparents were not carried on into adulthood.

What is left since neither hypotheses is supported? Well, perhaps a more realistic situation. The Hurons were a matrilineal society (Trigger 1987; Wright 1973), which suggests that children would have been around mothers and grandmothers - hence the reality of having both influences.

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The argument can be made that children were the ones initiating this style trend, because the children from the early period, are the adults during the Middle period, and as the children lead in the use of the *Oblique/Vertical* element, it is acceptable to believe that they would have continued this use during their adulthood. However, the problem with this argument is that in the Early period, the difference between the adults and juveniles is minor, which is why it is also probable that adults were also influencing children in their selection of motif elements.

3.3 Summary

The findings made in this chapter were:

- the majority of the juvenile pots were plain, but when decorated, they usually incorporated a single motif element
- pots from the Benson collection usually incorporated only a single element as well
- the majority of the juvenile pots had well-confined elements, however the frequency of this occurrence was not as high as with the adult pots
- juveniles and adults make different decisions as to how to design their pots
- children lagged in the use of the *Horizontal* elements
- adults lagged in the use of the *Oblique/Vertical* motif element

Although a more in depth interpretation will be made in the next section, it appears from these results that decorating the pots was not a requirement for juvenile potters. However, when they did decorate their pots, they focused on using a single motif element[20], and were able, for the most part, to ensure that it was confined to its proper zone. Although the Location Confinement analysis pointed to this ability, the lower percentage of well-confined decoration in comparison to the adult pots suggests that children were not as capable as the adults.

When motif elements were employed, the most frequently occurring were the *Horizontals* and the *Oblique/Verticals*. The results from the analysis of style trends point

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20 This is not surprising since it would be easier to learn how to manipulate one element rather than a number of elements.

to a sphere of influence that included both grandmothers and mothers: children were learning to decorate their vessels from two generations, at the same time as following their own interest . This is interesting because not only do these findings demonstrate that juvenile pots are different from adult pots, but they point to a little investigated group: grandparents.

What is also interesting to note is what happens to the motif elements employed during childhood in adulthood. The *Horizontals* suggest that it is not until adulthood that real change arises, for the pattern is of adults employing elements other than *Horizontals*. With the *Oblique/Vertical* analysis there is some suggestion that children retain the influences from their parents into adulthood, and lose those from their grandparents.

CHAPTER 4

INTERPRETATIONS

A question is like a knife that slices through the stage backdrop and gives a look at what lies hidden behind it. Milan Kundera

4.1 Introduction

My goals at the outset of this research were basically to find out about children in prehistoric Huron society and to do this by refining and then stylistically analyzing the category of juvenile pots. As my research progressed, a picture of the process of ceramic design developed. This picture has highlighted different segments of society, from young to old, and has suggested relations of which I had been unaware. It is the aim of this chapter to explain these relations and more fully develop the picture of ceramic design in Huron society.

4.2 Refining the Category of Juvenile Pots

Before I could use juvenile pots as a category to assess the role of children in ceramic innovation, I had first to "refine" it. Traditionally pots are put into this category based on three criteria: 1) small size; 2) crudity in form; and 3) crudity in motif application. In response, I developed these new criteria: 1) crudity index; 2) curvature consistency index; 3) the motif application index; and 4) design conception. The goal

here was to develop a more accurate means of determining what is juvenile and also to evaluate the assumptions of crudity, both motor and conceptual.

With the Crudity Index (C.I.), I looked at how the vessel walls were constructed, and found that 83.3% of the juvenile pots were in the Fine range (see Figure 2.5). So, based on this result, it appears that if children were making these pots, they were not only capable of constructing well-formed vessel walls, but they did so consistently.

With these results, I turned to the Curvature Consistency Index (C.C.I.), which is also an evaluation of crudity of vessel form, to see if the results were comparable. I found that 46.2% of the pots fall within the Fine range (see Figure 2.6). However, there was also an almost equal number of pots in the Fair range, with 40.6%, which suggests that children were just as likely to make a fair pot as a fine one, which means that they were not as skilled in constructing an even curve.

To properly evaluate these results, I performed the same tests on adult pots from the Benson collection. For the C.I., I found that there was little difference between the juvenile and adult results - so children were just as capable as adults in forming an evenly thick vessel wall. However, when the results from the C.C.I. are compared, I found that 74.5% of the adult pots were well curved (see Figure 2.6). So, it appears that children formed even vessel walls, but could not always make finely curved vessel walls. There are two possible interpretations for this discrepancy, the first one having to do with tool size. Adult pots were usually made with the paddle and anvil method, where a flat

stone would be used on the inside while the outside of the vessel was being paddled (Quimby 1966:106; Tooker 1991:59; MacNeish 1952:8). Dawe has found in his review of Plains literature, that there frequently is a juvenile correlate for adult tools (Dawe 1997, *pers. comm.*). This suggests that it is possible there were "mini" paddle and anvils being used by children. If this was the case, it is understandable then that there would be greater difficulty in achieving a well curved pot because of the small size of the implements. However, if children were not using the paddle and anvil method, and were simply using their hands to curve the pot, this would also explain inconsistently formed curves.

The results from the Motif Application Index (M.A.I.) were in line with the results from the C.C.I., suggesting that poor motor ability was in fact a valid assumption for the category of juvenile pots. The bulk of the vessels fell within the crude range, with a frequency of 47.4%, however an almost equal amount fell within the fair range, with 40.1% (see Figure 2.7). When compared with the results from the adult pots from the Benson collection, motifs on juvenile pots are not as well applied. Motifs on the majority of the adult pots, 57.8%, were fairly applied. So, although the quality of motif application is not that high on the adult pots, the motifs on most of juvenile pots were even less well applied. So, based on these three indices, it appears that the assumption of poor motor skills is partially correct. Although children were able occasionally to attain levels comparable to those of the adults, their vessels were often less well formed.

When I evaluated the assumption of poor conceptual skills based on two sub-divisions of Design Conception (Location Confinement and Number of Motif Elements), I found the assumption that children had poor design conception (as defined in Section 3.0) was incorrect. Although the majority of these vessels were plain, when motif elements were employed, 33.8% (see Table 3.3) contained only one motif element. This latter point is shared with the adult pots from the Benson site, where 49.2% have only a single motif element. This suggests that children were not very different when deciding how many elements to incorporate. However, the greater frequency of plain vessels suggests that the crux of the learning was on forming the vessel, and not on its decoration (see also Timmins 1992:301).

Decorations were well confined on the majority of the decorated juvenile vessels, 68.0% compared with 91.5% for the adults (see Table 3.4), which suggests that children were able to *conceive* of well placed motif elements, but were not quite skilled enough to ensure that they were always thus placed (hence the discrepancy between the adult and juvenile frequencies). By the ages of five to seven children, for the most part, are able to stay within the boundaries they have set (Kellogg & O'Dell 1967:87); this may explain why so many vessels have well-confined designs[21]. These pots also

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This is because children had the ability to stay within boundaries at a young age, therefore you would expect a number of pots to have well-confined designs. This also suggests that the age of beginning to learn the craft may be fairly young.

probably represent different ages, and therefore different skills, which could also explain the lower frequency of well confined vessels as compared to the adults.

The combination of these indices and the Design Conception suggest that the pots that children formed were different from those of the adults. Although there were a few areas where skills overlapped, for the most part, children were unable to achieve the level of construction that adults were able to achieve. This means that the assumption of crudity is not far wrong, but perhaps can be better stated as: *juvenile pots are often less well made than adult pots*. However, size remains one traditional criterion that I was not able to assess through these indices. This criterion will be discussed below.

4.3 Juvenile Pots?

So, are these pots juvenile? I believe that they are. I have made the assumption that children are the makers of these vessels and am obviously not alone, if only based on the names ascribed to them: baby, toy, juvenile, children (Pearce 1978; Murphy 1986; Wright 1973). Although it is possible to argue that these pots could be the work of apprentices, of any age, I believe that these pots represent the work of children for the following reasons: 1) size; 2) re-evaluated criteria; 3) life skill; 4) socialization.

4.3.1 Size

One of the most obvious attributes of the juvenile pots is their small size. However, this is a problematic criterion for it is difficult to determine whether the small size is simply a result of poor motor skills; in other words, are these pots small because children did not have the motor skills to produce the large sized pots? The above discussion of motor skills suggest this may be a possibility.

There are a few other explanations for the small size as well, one of them being a function of the amount of clay a child had to use - children would either be given a small amount of clay, or they would choose to work with only a handful of clay; either way, this would result in a small vessel. Among the Atzompa villagers in the state of Oaxaca, Jean Hendry noted that children "make smaller editions of what their parents manufacture" (1992:63). When children are just beginning to learn, they begin "small and low" which means they make tiny vessels and work up to larger sizes (Hendry 1992:102). It is probable then that they used a small amount of clay, so that learning was manageable.

Another reason for the small size is that these vessels are toys, either made for children or made by them. Dawe has noted that there is almost always a "toy" correlate for adult objects (Dawe 1997, *pers. comm.*). DeBoer found that

> Another kind of purposeful misrepresentation is occasionally done by the adult female artist when decorating toys made for her young children, a kind of artistic "baby talk" (DeBoer 1975:12).

This suggests that adults may decorate toys differently because the item is for children. However, children have also been known to make their own toys, all one has to do is look at children in any play situation today. There are also ethnographic examples of this, for instance, among a south African tribe in the early 1900's, children would make their own clay toys (Kidd 1906:167; see also Calvert 1992:50). Based on other lines of evidence to be presented, I believe this latter situation more accurately reflects the Huron juvenile pots.

Small items or miniatures are often ascribed a ceremonial or symbolic function (Murphy 1986; Tuck 1978:39-40; Lillehammer 1989:100; Ellis 1994). This could potentially be the case with the vessels under discussion, except that they do not stand up to the "tests" alluded to in the references listed. There does not appear to be a special spatial association with these artefacts, such as suggested by Lillehammer (1989). She noted that during the Bronze Age in Scandinavia, miniature versions of larger items were fashioned in bronze; she believes these items have some sort of ceremonial function because they were buried with people (Lillehammer 1989:99-100). Although there have been small pots located in burials (Saunders & Ramsden 1986:21), this is by no means standard or consistent. As for special locations within the village, this does not seem to have been the case[22]; nor were these vessels found only at village sites, they were also

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I did a cursory spatial analyses and did not find any obvious and consistent relationships between location and shards.

found in smaller camps, such as the Dougall site which has been interpreted as a fishing camp (Wright 1972). Murphy (1986) and Tuck (1978) also list ethnographic sources as one of the reasons why they described their artefacts as having a ritual function. Tuck describes the small pots from the Cabin site (Tly 1-1), an Owasco site in New York state, as potentially being part of a "dream bundle" (Tuck 1978:41). However, these pots were "extremely well made", and were associated with another miniature item (Tuck 1978:40).

4.3.2 Re-evaluated Criteria

The evidence gained from the re-evaluated criteria shows that these pots are *different* from the adult pots. There are two lines of evidence for this: crudity measures and motif analyses. The crudity measures demonstrate that children were generally not as skilled as adults in constructing and applying designs to vessels, nor were they as skilled in confining their decorations in the designated zones. Children also made different decisions when they designed their vessels. The results from the *Oblique/Vertical* and *Horizontal* element analyses, which will be discussed further in Section 4.4, demonstrate this clearly.

4.3.3 Life Skills

I believe it is safe to assume certain skills were necessary to have by the time adulthood was attained. With adulthood came the responsibility of providing for a

family. Adulthood may have been attained as early as eleven years (Duff 1985:38). There is also a suggestion that the more pottery a household produces, the younger the age of learning becomes (Hayden and Cannon 1984:360; Warrick 1984:110). Pottery use is an important part of Huron society and is the most abundant artefact recovered from these sites (Lennox et al. 1986; Ramsden 1990). So, if pottery manufacture is an important craft, and pots are produced often (as is the case), the implication is that there was a need to have this skill before attaining adulthood. The ideal time to learn potting was childhood because by the time one was an adult, it was necessary to *have* the skills, not spend time *learning* them.

4.3.4 Socialization

Ethnohistoric sources tell of children being given tools to help them adjust to the roles they would need to fulfil during their youth and adulthood. Sagard notes that boys were given bows to learn how to shoot and girls were given sticks to pound corn - both of these were done very early in their lives (Wrong 1968:133; Thwaites 1896-1901 v.67:139-141). Sagard also recorded that women produced pottery (Wrong 1986:108), and along with the above descriptions of childhood tools, it seems likely that young girls would be required to learn how to make pots as well[23]. Archaeological and ethnographic

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The assumption is that young girls made pots (Wright 1973:32) because women are the ones *observed* to have made pots. This seems a safe assumption since Huron society is recorded as having fairly strict divisions of labour (Trigger 1987:34; Tooker

sources also provide examples of children having their own, smaller, learning tools (Dawe 1997; McQuinston & McQuinston 1995; Murdoch 1988; Hendry 1992).

Although there is a possibility that these pots were the work of adult apprentices or were made by adults for children, or had alternative functions that *negate* juvenile construction, when the above strands of information are put together, it seems more likely that these pots most often reflect the work of children learning the craft of pottery manufacture.

4.4 Role of Children in Ceramic Design

Having determined that juvenile vessels were different from adult pots in how they were formed, I wanted to see if this was also true in how they were decorated, and if these decorations predict later stylistic trends, i.e. were children innovators. Timmins' (1992) work on the Calvert site suggested that this was a distinct possibility. He compared the decorations on and techniques of adult and juvenile vessels to look for similarities (Timmins 1992:298). He found that the majority of juvenile pots were plain, unlike the adult pots (Timmins 1992:298), but he also found that there was a "high occurrence of horizontal decoration" on juvenile pots which was not mirrored on the adult pots (Timmins 1992: 298-300). Juvenile pots were decorated differently from adult

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1991:58; Thwaites 1896-1901 v.1:257-9; v.5:133). However, there is also the possibility that both boys and girls made pots.

pots, but juvenile pots also "herald[ed] the wave of the future in Iroquoian ceramic design" (Timmins 1992:302).

I began my examination of ceramic innovation with the following hypothesis: if children were innovators in ceramic design, one would expect to see a pattern where children were leading in the adoption/use of *Horizontal* motif elements. I used the *Horizontal* motif element for two reasons: 1) they appear 30.0% of the time on juvenile vessels (see Figure 3.5) and 2) there is a noted style trend with *Horizontal* elements (ASI 1996:77). The results from the analysis of the *Horizontal* elements did not support my hypothesis, in fact, they pointed to the exact opposite: juvenile pots lagged behind the adults until the Middle period, when they started displaying a higher percentage of these elements, which was also continued into the Late period. This lag among the juvenile pots was found to be statistically significant. Figure 3.6 shows a pattern where the adults from the Early period are incorporating a high frequency of *Horizontal* motif elements, which is followed, in the Middle period, by children incorporating a higher frequency (than during the Early period) of *Horizontal* elements. I interpreted this pattern to mean that grandparents were the ones influencing children's decoration choices, because the parents from the Early period would be the grandparents during the Middle period. As well, there is a general trend for the use of this element to decrease on the adult pots, which suggests that it is unlikely that younger adults (i.e. mothers) would have been influencing children to incorporate an element they were no longer applying frequently.

Since there was a distinct pattern with the *Horizontal* elements, which I interpreted to mean that they were being influenced by their grandparents, I formulated a new hypothesis: if children were indeed learning from their grandparents, the *Oblique/Vertical* elements should show the same pattern of lag and lead as did the *Horizontal* elements. Once again though, my hypothesis was not supported by the results. What I found instead was that juvenile pots led in the use of these elements until the Late period, when adults took up the use of these elements (see Figure 3.7). Because the lead in the Early period was very small, I focused on the Middle period and the Late period. During the Middle period, children are still leading in the use of *Oblique/Vertical*, however, the adult usage has increased greatly. In the Late period, there is a shift, where children are lagging in the use of *Oblique/Vertical*, while the adults are incorporating this element with a greater frequency. A basic interpretation is that children during the Middle period foreshadowed the rise in the use of *Oblique/Vertical* elements during the Late period, i.e. the children during the Middle period carried their experimentations into adulthood. Children as innovators makes sense in light of the following two points: 1) the *Horizontal* element results and 2) Timmins' work (1992). The results from the *Horizontal* motif element analysis (Figure 3.6) show Timmins' observation that the popularity of this element on juvenile pots does "herald" its popularity on adult pots in a later period[24] (Timmins 1992:301-2). The Calvert site, from which he drew his sample,

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During my Early period (Figure 3.6), which spans roughly AD 1280 to the mid

was occupied for 50-60 years during the period preceding my study period (AD 1280 - AD 1650) (Timmins 1992:269). Figure 3.6 also shows that the trend is for this element to decrease in use on adult pots[25], but this smooth decline is not reflected on juvenile pots. So, the children during Timmins' study time (the period just preceding the beginning of my study) were incorporating the *Horizontal* motif element more frequently than were the adults. These children then became adults and continued to use this element frequently, as reflected in the high percentage of its appearance on adult pots during my Early period. As these adults aged to become grandmothers, during the Middle period, they began influencing a new generation of children to use the same motif element. At the same time however, their own children were beginning to use the *Oblique/Vertical* more frequently. This is why my initial interpretation that grandmothers influence children in their element selection still stands[26]. The decrease in use of *Horizontals* suggests replacement with something else though and it appears that this something else is the *Oblique/Vertical* element, which is initially most popular on juvenile pots - i.e. they lead in its use.

14th c., the *Horizontal* motif element appears most frequently on adult pots. This then corroborates Timmins' observation.

25 This, once again, is a noted style trend (ASI 1996:77).

26 The interpretation I had stated for this element still stands because, in my time frame, the grandparents, for reasons explained earlier, are the ones to perpetuate its use.

However, this interpretation is not complete without taking note of what comprises the adult *Oblique/Vertical* pattern (see Figure 3.7). The adults include two groups of individuals I have been speaking about separately - mothers and grandmothers. The frequency of use of the *Oblique/Vertical* elements during the Middle period is affected by the grandmothers use of the *Horizontal* element. When this is factored in, the Middle period can be seen as a time when children were using the *Oblique/Vertical* element at a greater frequency than the adults, but many of the adults were already using this element. So, it is likely that children were learning how to decorate their vessels from their mothers as well. My overall interpretation then adjusts to reflect a more realistic situation where stylistic influences went in both directions.

4.4.1 Children as Innovators

The child is father to the man.
William Wordsworth

The quick answer to whether or not children were innovators in ceramic design is to ask another question. The question no longer should be whether or not children were the innovators, but rather whether they were involved in the process of innovation. The answer to this latter question is yes. Both the *Horizontal*[27] and

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[27] This is the case when Timmins' (1992) research is combined with my results.

Oblique Vertical motif element results suggest that children were "innovative" but that they were also influenced by their grandparents and their parents. There is also evidence to suggest that children were very creative and may have influenced each other in their design selections. This can be seen in the variety of designs placed on juvenile pots (see Appendix C). Interpreting the results of the two stylistic analyses (Figures 3.6 & 3.7) is only part of the necessary step in understanding the role of children in ceramic innovation. Hodder spoke of the need to realize that the relationship between *individual* and *norm* is not dichotomous but, rather, dialectic (Hodder 1986:156). Part of this process for my research is to go further than asking whether children were innovators in ceramic design, and to ask *why* was this a possibility[28]. This leads to examining the learning environment.

The way to understand the pattern of learning or socialization process children were undergoing is what Camic entitles "experiential learning" (Camic 1983):

> The teachings that one generation passes on to the next are not...the whole of socialization.....individuals can learn not only from what they are expressly taught, but also from their experiences from the activities that they engage in and observe around them - in short, from what they and others actually do in the situations in which they find themselves (Camic 1983:106-7).

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The point here is not to assume that *norm* governs individual behaviour, but to go beyond and see that *norm* affects individual behaviour, but is also affected by it.

Camic's ideas about the interaction of the *process* of socialization and the individual works well with the post-processualist ideas of *individual* and *norm*. Together they provide a way to understand the stylistic transformational trends that take place.

4.4.2 Learning Pattern

Children are generally thought to learn their potting skills from their mothers (Timmins 1992:297). The child learns how to form and design the pot by observation and mimicry (Warrick.1984:111). However, based on my results, the sphere of influence for learning seems to have been larger: children learned from those within their household, so, their mothers and grandmothers. This presents a more realistic situation because of the arrangement of the Huron household where three generations of women would live together (Quimby 1966:104; Trigger 1987:45-6).

The type of stylistic learning assumed to have been taking place is *isochrestic*, which is learning by rote or imitation (Plog 1993:62). This is likely the most predominant form of learning, but to better understand the transformational nature of style transmission it is necessary to explore other forms. The other likely variant of style being used here is *symbolic*, which is the "...basic human cognitive process of identification via comparison" (Wiessner 1984:190). Style here is an active identity negotiation between the person designing the artefact, and those around them: "...style is an active tool used in social strategies, because in the process of presenting information about similarities and differences, it can reproduce, disrupt, alter, or create social

relationships" (Wiessner 1984:194). Much of the *Horizontal* and *Oblique/Vertical* motif element use can be seen as a sort of "identity negotiation". I believe that the incorporation of these elements on juvenile pots represents "identity negotiation" because children are "highly selective in the behaviour [they] imitate" (Peller 1971:110). This implies that children are making certain statements about, or trying to figure out, who they are by aligning themselves with individuals through the use of certain decoration elements (in this case, the *Horizontal* and *Oblique/Vertical* motif elements).

Children's pots are stylistically different from those of the adults; they were making different decisions when it came to decorating their vessels. However, they generally chose to use the two motif elements most frequently appearing on adult pots (see Section 3.2.2), though the relative frequency of use was different. With the idea of "identity negotiation" in mind, the decisions that children made in decorating their pots seems to say that they were closely aligning themselves with the individuals within their household. This is not a new concept (see Warrick 1984; Hayden & Cannon 1984; Trigger 1987; Quimby 1966), however what is being stressed here is that children *chose* to copy their mothers and grandmothers. Children do not mimic because of an instinct to copy whatever they chance to observe frequently enough and long enough, but rather there is often some sort of "emotional motivation" (Peller 1971:110). What this suggests is that it was important to children to be like their mothers and grandmothers. As well, who children copy is influenced by "admiration and wishful anticipation of [their] own adult role" (Peller 1971:110).

However, children are not simply copying the work of their elders, they also retain some creative license. DeBoer has noted that among the Shipibo-Conibo, copying of design styles does not result in a "perfect cross-generational transmission" (DeBoer 1990:88). This suggests additionally that it was not the aim of children to *be* their elders, instead just to be *like* them. In addition, children seemed to be on the cusp of changes, as is witnessed in the employment of both the *Horizontals*[29] and *Oblique/Verticals*, which again suggests children were selective in the decorations they decided to employ.

4.5 Peopling Huron Prehistory

By focusing on the transformative nature of experience, and the "identity negotiation" aspect of style, I was able to access the "in-between" places that I discussed in Section 1.3.1, and in doing so, I was also able to "see" the Hurons not only as producers of pottery, but as individuals communicating their relations to each other. Further, this allowed some access, although tentative, to what these individuals were thinking.

The first group of archaeological individuals I will discuss are grandmothers. Discovering their role in stylistic transmitting initially came as a bit of a surprise, but made sense as my research developed. The role of the grandparent in

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29 In this case of *Horizontals* I am including Timmins' observations about the role children had in its employment.

teaching is not a new one (McQuinston & McQuinston 1995; Hendry 1992), nor is there any reason to believe that they would not have been producing pottery at their age. However, there is also another reason for their role in style transmission within this context. During the 15th century, when adults from the Early period (see Figure 3.6) would have been the grandparents of the Middle period, there was a fair bit of population disruption within the Barrie region (ASI 1996:7). This population movement was the result of villages amalgamating, new immigrant inhabitants, as well as a general population shift northward (ASI 1996:7). All this activity could have resulted in a greater desire to impart some of the "old" ways of decorating pottery; a form of stability in the face of change. Grandmothers can thus be seen to be communicating their desire for the "next generation" to know something from times different from their current situation.

The insights I have gained about mothers, have mainly come through the examination of children, so I will discuss them. As mentioned above, the negotiation of identity seemed to be part of the choices made about which elements to use on their pots. Children, however, were also creative. The examples from Appendix C , show that they did play with decorations. It is also highly probable that they were influenced by each other, for a substantial amount of their vessels (19.5%) incorporated *Geometric* elements, something that was relatively rare on adult pots. As well, there are stages of artistic development that children go through (see Section 1.3.5), so it is likely that they were going through similar experiences (Kellogg & O'Dell 1967; Lowenfeld 1965; Lowenfeld & Brittain 1975). This latter point implies that children may not have *consciously* tried

to deviate from what others were doing around them, which further implies that they were not actively negotiating anything. I do not believe this was the case because children did not decorate pots the same way as the adults (both grandparents and parents), and when they did, it did not always result in an exact copy. However, the learning environment in which children functioned, whether fully cognizant or not, was such that they were able to experiment and mimic. This provides some archaeological confirmation for what the ethnohistoric sources tell - children were given much freedom.

Based on the results from the *Horizontal* elements, it appears that when children became adults, they no longer employed the elements used in childhood, so it initially appeared as if only in adulthood did change take place. But, when compared to the results from the *Oblique/Vertical* analysis, children tended to carry on those elements used during childhood. A possible interpretation of this could be found by looking at the "identity negotiations" that were on-going: those decorations learned from the parents were the ones carried into adulthood. The implication here is that children had a greater desire to be like their parents than like their grandparents. This is interesting because I had stated earlier that children were selective in which designs they decided to mimic and that children seemed to hone in on the "new" decoration and incorporate that most frequently. So, in this situation, it appears that children picked up on the *Oblique/Vertical* motif element, appearing on the adult pots, embraced it (as witnessed in the higher frequency of its use) and then carried it on into adulthood.

So, it appears that the decorations on juvenile pots *could* herald new design trends. However, childhood seems to have been more a stage during which different motif elements were experimented with, and if a change were to occur, it would not happen until adulthood.

4.6 Summary

The following is a synopsis of the interpretations I have made:

- These pots most likely represent the work of children learning the craft of pottery manufacture.
- The traditional assumptions about motor and conceptual abilities are partially correct.
- Decorating these pots does not seem to be as important a task as learning to form the pots, as suggested by the fact that the majority of these vessels are plain.
- When the pots were decorated, children most frequently chose to use the elements that their mothers and grandmothers used.
- It was during adulthood that change in ceramic design came about. This change reflected the greater desire, during childhood, to mimic decorations seen on their mothers' pots.
- Children were participants in the process of innovation, along with the adults.

These interpretations have implications for essentially three categories: 1) children; 2) learning patterns; and 3) Huron prehistory.

4.6.1 Children

The purpose of this research was to access children. I was able to do this and discover that they were not the innovators in ceramic design, instead were part of the process of innovation and that they were distinct from the adults in how they formed and decorated their own vessels. I suggested they were "negotiating their identities" and making wilful choices when designing their vessels. Ethnohistoric sources speak of Huron children being allowed much freedom and the evidence of the juvenile vessels suggests this may be true.

4.6.2 Learning Patterns

It appears that learning took place at a young age, i.e. childhood, and that learning how to form the vessel was more important than decorating the vessel. As for who was teaching children, it appears that the household was involved: both mothers and grandmothers. As well, the pattern of learning seems to have been informal, in that children were not in a rigid system of instruction where there was not much room for experimentation.

Children do not appear to have the innovative role in ceramic design that I had initially anticipated, and as Timmins has found in his work (1992:302). The main reason why our results differ is probably because of the difference in the span of time. My research extended from roughly AD 1280 to AD 1650; whereas Timmins' concentrated on one period, during the 12th and 13th centuries, spanning about 50-60

years. There is a noted coherence in ceramic styles at Glen Meyer sites during the period AD 1100 - AD 1250 in southwestern Ontario - this is the temporal and spatial setting of the Calvert site (Timmins 1992:269). The longer time span from which I drew my sample allows for more variation to become visible. Although I have noted that when our studies are combined, an interesting pattern emerges from the analyses of the *Horizontal* and *Oblique/Vertical* motif elements, it is only through focusing on the longer span of time that the interactive nature of style transmission is visible.

4.6.3 Huron Prehistory

Ramsden noted that one of the weaknesses of Huron archaeology is that it has "remained largely impervious to theoretical developments in archaeology" and suggested that one direction for it to go is small scale analyses (Ramsden 1996:105; 111). My research on the role of children in ceramic design has brought alternate theoretical issues to Huron archaeology and has focused on working on a smaller scale than is typically done. There are ample books on the Hurons, and their life-ways (Trigger 1987; Trigger 1985; Tooker 1991; Wright 1972; Heidenreich 1971), but these tend to be based on *historical* sources, rather than on the archaeological record (which is another weakness/dependence Ramsden discusses (1996:104-5)). By focusing on discovering the "child's world", and all its theoretical ramifications[30] within the Huron context, I was

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30 By "ramifications" I mean the whole idea of the archaeology of children and

able to access other individuals as well as children, namely mothers and grandmothers. The importance of this is that it is possible to access Huron individuals without a dependence on ethnohistoric sources[31]. As well, the micro-scale evaluation of juvenile pots has highlighted the notion of agency in pottery manufacture. This brings the focus of ceramic studies back to an individual level, rather than the typical focus on "regional culture-histories" (Hayter 1997:1). By using the notion of "experiential learning" and style as "negotiating identities", I was able to understand the use and transference of styles between children, mothers and grandmothers as an active process, rather than a simple act of single generational transmission.

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other post-processualist positions where discussions of agency and individuals is important.

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I am not proposing that these sources are never used, but that they not be relied upon as heavily as they have been, and that they be questioned in the process of archaeological work.

CHAPTER 5

CONCLUDING THOUGHTS

The dead read backwards
as in a mirror. They gather
in the white field and look up,
waiting for someone
to write their names. Anne Michaels

In the previous chapters I have focused on presenting and determining the role of children in Huron society. In this chapter my focus shifts to discussing the larger picture, the archaeology of children. This archaeology is at one and the same time a critique of archaeology and a sub-discipline whose purpose it is to unearth the "child's world" through an analysis of archaeological correlates of both children and adult activities. My goal was not so much to find children, as everyone already knows that they were there, but rather to make them visible - learning how to write their names.

5.1 Weakness of Research

Before I launch into a discussion of the child's world, I believe that it is now appropriate to discuss some of the weaknesses of my research. The first one is the *defining* of the artefact category juvenile pots. As I have mentioned a number of times, I cannot absolutely state that *all* these pots were juvenile, nor can I state with absolute certainty that *any* of these pots were even produced by children. Nevertheless, my

assumption does not preclude other uses, but it is a valid option that these pots are of juvenile manufacture based on the evidence presented in Section 4.3.

Another weakness of this research reflects time constraints. I had to use published reports to gain information on which motif elements were used on adult pots, as I was not able to sample any of the adult pots myself. This led to a potential underrepresentation of certain elements (see Section 3.1.2). However no one element is typically underrepresented and my method of stylistic categorization could be applied consistently over time. As well, I was able to see patterns despite the potential underrepresentation which suggests that these patterns are valid.

5.2 Child's World

The archaeology of children has many contributions to make to general archaeological discourse; specifically, it has much to say about the child's world. This world can essentially be defined as the locus of cultural interactions between children and their environment, and adults and each other (Lillehammer 1989:90). Examining the child's world can lead to insights into such basic tenets of archaeology as processes of cultural adaptation and transformation (Lillehammer 1989:90). My research focused on determining if children were innovators in ceramic design and in the process I learned that this was not quite the case; instead, they were likely being influenced in their selections by both mothers and grandmothers. The significance of this is threefold: 1) children were being socialized, in this respect, by two generations, which has not been

the typical interpretation; 2) the process of socialization and learning appears to have been somewhat interpretive; and 3) other groups of individuals were accessed through inquiry into the child's world. I now want to turn to a discussion of the later two points, because it is here that the archaeology of children really works towards contributing to and informing general archaeological discourses.

In Section 1.3.3 I spoke of regarding socialization as interpretive. What is meant by this is that socialization is not simple transference. DeBoer has noted that among the Shipibo-Conibo, design styles were not perfectly transmitted (DeBoer 1990:88), meaning that there was some sort of *interpretation* of what was being taught and how it was being received. This is entirely what should be expected, for: "The child is not drawing objects in the world as he sees them, rather he is striving for something new within a set of forms which he has already learned" (Kellogg & O'Dell 1967:17). So, in the process of socialization, children *act upon* what they are being taught, instead of simply being *acted upon*[32]. However, looking at socialization as interpretive also means that the learning process does not simply go in one direction, from adult to child, but likely goes in a variety of directions:

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If the designs in Appendix C are examined, a number of them can be seen to be variations on a form, e.g. the *Horizontal* form. From an adult perspective, this would reflect the child's inability to produce this element, but perhaps the child is simply drawing what s/he is seeing.

adult ↔ child ↔ child[33]

Also, the use of the *Geometric* motif elements predominantly among juveniles additionally points to the influence of children on each other. The point here is that there is a need to look at socialization as more than a transmission of society's norms - learning is not one moment in time, but rather is continuous (DeBoer 1990:88) - and the benefit of doing so is that other relationships not only become visible, but viable. This leads directly to the next point I want to discuss, which is accessing other groups.

Looking at socialization as interpretive, and by focusing on the child's world, other members of society are accessible, but in new relations. The child's world seems to be an intersection for interactions, a crossroads of sorts. My examination of children in ceramic design in Huron society brought grandmothers and mothers into focus, not only children. What is exciting about this is not so much that I *saw* both grandmothers[34] and mothers, but that I was in the position to examine the interactions between them all. As discussed in Section 1.3.1, it is at the crossroads of relationships that there is much potential to access more than the material. In *Theory and Practice in Archaeology*, Hodder talks about the need to better combine theory and practice in

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The results from the *Oblique/Vertical* motif element analysis could be said to suggest that there is a possibility that children were influencing adults in their choice selection, although it is more likely they were influencing each other.

34

I don't mean to deny or reduce the significance of the "discovery" of grandmothers, because I was very excited by their "appearance".

archaeology (1992:1-6). Examinations of the child's world can thus provide an example of how this can be done, and in so doing, provide insights into the interactions between individuals in a society, which is part of what archaeology aims to do[35].

The archaeology of children is fundamentally about representation. Studies of children in archaeology have been lacking. Childhood is socially constructed and how different societies have constructed childhood can inform on these societies and elucidate the actual state of childhood. This research has worked towards demonstrating the importance and contributions that a study of the child's world can make to archaeology. At the same time though, I do not want to suggest that an archaeology of children should *stand alone*. It is not my intention to advocate a role where it is separate from other archaeologies, rather I hope that by introducing this term and demonstrating its usefulness, it will become standard procedure in cases which call for such an approach. It is really the *kind* of questions that are posed however, that point to its potential use, for example, questions that deal with innovation, transmission, and change. These questions/issues all deal with processes over time and the effects of acceptance or rejection in the survival of, in the case of my research, style; as a result, the need to employ an archaeology of children is clear.

35

Or, at least, current archaeological theories often aim to do this.

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APPENDIX A

CRUDITY AND CURVATURE CONSISTENCY INDICES: RAW DATA

Crudity Index: The Barrie Site (BcGw-18)

Number	Catalogue	Thick	Thin	C.I.
1	25	7.3	7	0.96
2	381	4.9	4.3	0.88
3	401	8.7	7.5	0.86
4	388	5.5	5	0.91
5	387	3.9	3.8	0.97
6	387	5.6	5	0.89
7	320-110	7.1	6.4	0.90
8	183	8.1	7.6	0.94
9	310-100	9.4	9.3	0.99
10	Sq. 320-132	8.1	8	0.99
11	Sq. 305-133	10.5	10	0.95
12	Sq. 303-132	4.5	4.1	0.91
13	Sq. 330-110	3.3	2.9	0.88
14	Sq. 335-120			
15	Sq. 345-110	5.6	4.8	0.86
16	Sq. 305-55	4.6	2.8	0.61
17	Sq. 344-114(b)	11.9	11.3	0.95
18	Sq. 344-114(l)	5.7	5.5	0.96
19	305-124	9.1	8.4	0.92
20	305-124	8	7.5	0.94
21	305-124	7	7	1.00
22	305-124			
23	305-124	6.8	6	0.88
24	425	7.1	6.6	0.93
25	202	6.4	5.5	0.86
26	390	6.9	6.5	0.94
27	384	4.2	4.1	0.98
28	2	4.2	3.8	0.90
29	144	6.3	5.7	0.90
30	185	8.2	7.9	0.96
31	182	5	4.1	0.82
32	41	6.5	6.4	0.98
33	16	6.7	5.5	0.82
34	Sq. 314-90	5.7	3.6	0.63

Curvature Consistency Index: The Barrie Site (BcGw-18)

Number	Catalogue	Depth[1]	Depth[2]	CCI
1	25			
2	381	1.7	1.6	0.94
3	401	1	1.4	0.71
4	388	1.1	1	0.91
5	100			
6	305	3.7	3.1	0.84
7	320-110	0.6	0.8	0.75
8	183	0.7	0.8	0.87
9	335-120			
10	330-110			
11	132			
12	345-110			
13	387			
14	305-124			
15	144			
16	390			
17	344-114b	0.4	0.5	0.80
18	425			
19	133			
20	305-124			
21	305-124			
22	123			
23	305-124			
24	305-124			
25	202			
26	344-114l			
27	384	1.1	0.8	0.73
28	185	0.4	0.4	1.00
29	305-55			
30	2	0.5	0.5	1.00
31	182	1.3	1.2	0.92
32	41	2.2	1.6	0.73
33	16	2.1	2.2	0.95
34	90	4.1	5.5	0.75

Crudity Index: The Wiacek Site (BcGw-26)

Number	Catalogue	Thick	Thin	C.I.
1	555	6.7	6	0.90
2	611	6.3	5.6	0.89
3	710	7.2	6.5	0.90
4	721	4	3.8	0.95
5	724	7.6	5.9	0.78
6	930	4	3.4	0.85
7	937	8.4	6.9	0.82
8	945			
9	956/1003	3.8	3.8	1.00
10	1004	4.3	3.8	0.88
11	1213	6.6	5.6	0.85
12	1222	6.4	6.3	0.98
13	1247	6	5.6	0.93
14	2355	6.7	5.6	0.84
15	2356	4.9	4.8	0.98
16	1519	6.9	6.7	0.97
17	2522	7.4	7	0.95
18	2586	5.4	5.2	0.96
19	2592	5.8	5.8	1.00
20	2622	7	6.2	0.89
21	2734	5.9	5.2	0.88
22	249	11.1	10.2	0.92
23	275	7.4	6.6	0.89
24	381	6.6	6	0.91
25	546	8.6	8.4	0.98
26	602	5.4	5.3	0.98
27	673	8.4	6.9	0.82
28	709	10.7	10.7	1.00
29	819	6.5	6	0.92
30	1214	8.7	7.8	0.90
31	1242	9.5	7.8	0.82
32	1243	11.5	10.6	0.92
33	1245			
34	2251	9.8	9.1	0.93
35	2282			

Number	Catalogue	Thick	Thin	C.I.
36	2313	5.6	5.3	0.95
37	2352	6.9	5.3	0.77
38	2354			
39	2358	8	6.7	0.84
40	2359	6.7	5.7	0.85
41	2563	6.2	6	0.97
42	2588	6.1	6	0.98
43	2624	5.5	5.2	0.95
44	2625	6.7	6.2	0.93
45	547/610	5.6	4.4	0.79
46	2883	5.5	3.4	0.62
47	607	3.7	3.2	0.86
48	1364	6	5.6	0.93
49	2361	6.8	5.6	0.82
50	2256	4	3.7	0.93
51	F-31	6.7	6.3	0.94
52	S5W17/S25W16	4.5	4.5	1.00
53	H2F63/H2F10	10	7.3	0.73
54	H1F28	6.7	6.3	0.94
55	S28W15	8.3	6.4	0.77
56	H2F60	6.5	6.4	0.98
57	26SW15	10.6	8.8	0.83
58	H1 F24	5.1	5	0.98
59	F26/27	6.9	6.3	0.91
60	S27W13	5.4	4.9	0.91
61	S28W16	6.3	6	0.95
62	S27W13	6.5	5.7	0.88
63	S2817W	6.4	5.5	0.86
64	H2 F33	5.5	5.3	0.96
65	H1F79	9.1	8.1	0.89
66	H2F35	8.3	7.1	0.86
67	25S17W	5.8	5.2	0.90
68	25SW15	6.5	6.1	0.94
69	24S3E-S	5.1	4.7	0.92
70	30S17W	3.6	3.5	0.97
71	28SW15	7.3	6	0.82
72	H1 F79	4.3	4.1	0.95

Number	Catalogue	Thick	Thin	C.I.
73	H1 F61	6.4	6	0.94
74	H1 F72	8.6	6.3	0.73
75	F2	4.9	4.8	0.98
76	S26W13	5.8	5.7	0.98
77	F2	8.8	8.4	0.95

Curvature Consistency Index: The Wiacek Site (BcGw-26)

Number	Catalogue	Depth[1]	Depth[2]	CCI
1	555			
2	611	1.4	1.2	0.86
3	710	1.5	0.6	0.40
4	721			
5	724	1.2	1.5	0.80
6	930	2.6	2.5	0.96
7	937			
8	945			
9	956/1003	2	1.8	0.90
10	1004			
11	1213			
12	1222	1.3	0.7	0.54
13	1247	6.1	5.4	0.89
14	2355	1.2	1	0.83
15	2356			
16	1519	1.5	1.4	0.93
17	2522	0.9	1.7	0.53
18	2586	1.4	1.2	0.86
19	2592	1.1	1	0.91
20	2622	1.1	0.8	0.73
21	2734	1.9	2.1	0.90
22	249	5.3	4.3	0.81
23	275			
24	381	1.6	1.8	0.89
25	546	1.1	0.8	0.73
26	602			
27	673			
28	709			
29	819			
30	1214			
31	1242			
32	1243			
33	1245			
34	2251	1.3	1	0.77
35	2282	2.8	1.2	0.43

Number	Catalogue	Depth[1]	Depth[2]	CCI
36	2313			
37	2352	1.8	1.4	0.78
38	2354			
39	2358	3.1	2	0.65
40	2359			
41	2563	3.6	2.8	0.78
42	2588			
43	2624			
44	2625			
45	F-31			
45	547/610	9.7	6.4	0.66
46	2883			
47	607	1.7	2.3	0.74
48	1364	2.6	1.6	0.62
49	2361	4.2	4	0.95
50	2256			
52	S5W17/S25W16	3	2.3	0.77
53	H2F63/H2F10	14.7	12.5	0.85
54	H1F28	3.1	4.3	0.72
55	S28W15			
56	H2F60			
57	26SW15	1.4	1.2	0.86
58	H1 F24			
59	F26/27	1.3	1.1	0.85
60	S27W13	2.1	1.7	0.81
61	S28W16			
62	S27W13	1.4	1.2	0.86
63	S2817W			
64	H2 F33			
65	H1F79			
66	H2F35			
67	25S17W			
68	25SW15			
69	24S3E-S	1.5	1	0.67
70	30S17W			
71	28SW15			
72	H1 F79	1.8	1.1	0.61

Number	Catalogue	Depth[1]	Depth[2]	CCI
73	H1 F61			
74	H1 F72	2.3	1.3	0.57
75	F2			
76	S26W13			
77	F2	1.1	0.8	0.73

Crudity Index: The Carson Site (BcGw-9)

No.	Catalogue	Thick	Thin	CI
1	9628	8.7	8.4	0.97
2	box 1	10.8	8	0.74
3	27542	8.9	7.4	0.83
4	32086	8.4	7.7	0.92
5	2480	13.3	9.4	0.71
6	6791	6	5.3	0.88
7	9631	4.6	4	0.87
8	10122	6.3	4.8	0.76
9	9626	6.8	6.7	0.99
10	9727	4.5	4.4	0.98
11	16217	6.1	5.9	0.97
12	23328	7.4	5.7	0.77
13	13729	4.1	3.9	0.95
14	12656	7.3	6.8	0.93
15	6710	6.8	6	0.88
16	23696	6.3	5.9	0.94
17	14686	6.6	5.8	0.88
18	23636	5.6	5	0.89
19	16854	5.2	5	0.96
20	17043-48	6.2	5.7	0.92
21	13251	9.6	8.1	0.84
22	13726	16.9	7.1	0.42
23	31871	9.8	8.2	0.84
24	21880	8.5	7	0.82
25	5559	7.5	6.5	0.87
26	14958	6.2	5.6	0.90
27	9086	7.6	7.1	0.93
28	23838	8.7	8.3	0.95
29	13342	6.9	5	0.72
30	18741	9.1	8.8	0.97
31	74	10.2	8	0.78
32	412	12.8	7.2	0.56
33	1521	9.3	7.8	0.84
34	19595	15.5	12.5	0.81
35	18421	9.8	8.7	0.89

No.	Catalogue	Thick	Thin	CI
36	15010	10.5	10.2	0.97
37	19354	9.1	8.5	0.93
38	16410	6.8	5.8	0.85
39	11875	8.2	7.6	0.93
40	17884	6	4	0.67
41	17612	12.2	9.6	0.79
42	3103	5.4	5.2	0.96
43	14910	8.6	8.5	0.99
44	15014	8.8	8.5	0.97
45	26860	9.6	7.3	0.76
46	23641	7.1	6.4	0.90
47	27018	6.9	6.4	0.93
48	332	7.8	6.9	0.88
49	15013	6.8	6.2	0.91
50	7954	7.6	6.2	0.82
51	20529	9.8	8.9	0.91
52	27908	8.5	8.1	0.95
53	13487	8	7.4	0.93
54	30439	5	4.6	0.92
55	180	9	8.4	0.93
56	22651	4.9	4.7	0.96
57	15860	11.1	10.8	0.97
58	644	6.9	6.6	0.96
59	11114	8.7	5.3	0.61
60	8743	6.9	5.5	0.80
61	1600	8.3	6	0.72
62	158	7.3	6.8	0.93
63	329	6.6	5.6	0.85
64	18721	7.9	7.3	0.92
65	8862	6.8	6	0.88
66	1522	8.9	8.1	0.91
67	1857	9.4	6.3	0.67
68	13727	12	10.1	0.84
69	1742	7.2	6.7	0.93
70	14404	5.9	5.5	0.93
71	15850	11.1	9.9	0.89
72	22125	8.9	7.8	0.88

No.	Catalogue	Thick	Thin	CI
73	17975	8.3	6.7	0.81
74	147	7.9	6.7	0.85
75	19754	7.3	5.2	0.71
76	16321	9.4	9.2	0.98
77	7497	7.9	6.8	0.86
78	6699	8.2	8	0.98
79	15011	9.6	6.1	0.64
80	13814	7.8	7.1	0.91
81	4592	5.9	4.7	0.80
82	16885	9.5	4	0.42
83	17977	7.6	5.3	0.70
84	21879	8.3	8.1	0.98
85	15851	8.9	8.3	0.93
86	392	6.3	4.4	0.70
87	15012	8	8	1.00
88	h1 f168	7.4	4.2	0.57
89	2749			
90	1507	6	4.3	0.72
91	15849	12.8	10.7	0.84
92	1318	6.8	6	0.88
93	26449	4.3	3.1	0.72
94	15789	8.6	6.7	0.78
95	14890	6.5	6.3	0.97
96	26357	4.9	4.8	0.98
97	1744	9.2	8.9	0.97
98	333	5.3	4.6	0.87
99	6702	8	8	1.00
100	827	5.8	4.5	0.78
101	22628	6.2	6	0.97
102	1512	5.9	5.1	0.86
103	12439	3.7	3.4	0.92
104	1110	7.1	6.4	0.90
105	23704	6.7	6.7	1.00
106	23698	6.7	5.5	0.82
107	23323	10.6	9.6	0.91
108	23700	6.9	6.2	0.90
109	23703	7.7	7.3	0.95

No.	Catalogue	Thick	Thin	CI
110	23105	7.5	6.4	0.85
111	23965	6.8	6.7	0.99
112	23967	7.1	5.3	0.75
113	7415	4.9	3.9	0.80
114	385	6	3.8	0.63
115	386	8.8	8.7	0.99
116	387			
117	388			
118	10110	8.7	7.5	0.86
119	10111	9.9	9.7	0.98
120	10112	5.6	4.7	0.84
121	10113	6.1	5.5	0.90
122	10114	6	5.3	0.88
123	367			
124	368			
125	369			
126	370			
127	371			
128	372			
129	415	6.8	3.1	0.46
130	416	4.7	3.5	0.74
131	417	6.7	6.7	1.00
132	418	3.6	1.9	0.53
133	22379	6.9	5.2	0.75
134	456	4.6	4.3	0.93
135	14403	14.8	10.9	0.74
136	13806	8.7	7.8	0.90
137	19666	6.4	4.7	0.73
138	20300	5.2	4.9	0.94
139	15244	4.8	4.4	0.92
140	15245	6.8	6.7	0.99
141	15246	5.1	4.7	0.92
142	11110	5.3	5.1	0.96
143	422	5.7	6.3	0.90
144	828/2104	6	5.4	0.90
145	2403	5.2	4.6	0.88
146	2103	6	5.3	0.88

No.	Catalogue	Thick	Thin	CI
147	5126	6.2	5.9	0.95
148	5127	6	5.5	0.92
149	18456	6.5	6	0.92
150	18457	6.3	5.3	0.84
151	18458			
152	18459			
153	21877	8	6.7	0.84
154	20365	5.7	4.8	0.84
155	20366	6.8	5.2	0.76
156	2717	6	6	1.00
157	409			
158	256	9.5	7.3	0.77
159	421			
160	1338	4.2	4.1	0.98
161	23705	3.2	2.8	0.87
162	23684	6.5	5.7	0.88
163	394			
164	23321	7.4	6.4	0.86
165	411	7.4	7.1	0.96
166	408	8.5	6	0.71
167	391	4.9	4.6	0.94
168	2001	9.5	8.1	0.85
169	23707	5.7	5.6	0.98
170	405	8.8	6.7	0.76
171	406	3.6	2.4	0.67
172	407	9.3	7.9	0.85
173	315	7	6.4	0.91
174	316			
175	317	7	5.7	0.81
176	318			
177	24922	7	6.2	0.89
178	24761	7.5	6.9	0.92
179	24762	4.5	4.3	0.96
180	24763			
181	24921			
182	319	6.6	6.1	0.92
183	320	8.1	6.5	0.80

No.	Catalogue	Thick	Thin	CI
184	321	9	8.5	0.94
185	322			
186	323			
187	5940			
188	287			
189	288			
190	289			
191	290			
192	291			
193	292			
194	293			
195	294			
196	295			
197	296			
198	297			
199	298			
200	299			
201	300			
202	301			
203	302			
204	303			
205	304			
206	305			
207	306			
208	307			
209	308			
210	309			
211	310			
212	311			
213	312			
214	313			
215	314			

Curvature Consistency Index: The Carson Site (BcGw-9)

No.	Cat.	Depth[1]	Depth[2]	CCI
1	9628	7	7.4	0.95
2	box 1	5.3	4.5	0.85
3	27542	4.3	3.7	0.86
4	32086	6.4	4.6	0.72
5	2480	8.1	7.8	0.96
6	6791	1.2	1.4	0.86
7	9631	0.6	0.9	0.67
8	10122	7.4	7.2	0.97
9	9626	0.5	0.7	0.71
10	9727			
11	16217			
12	23328	2	1.8	0.90
13	13729	1.2	0.8	0.67
14	12656			
15	6710			
16	23696			
17	14686	1.4	1.1	0.79
18	23636	0.8	0.7	0.87
19	16854			
20	17043-48	4.5	3.6	0.80
21	13251	12.5	13.2	0.95
22	13726	0.6	1	0.60
23	31871	3.7	3.6	0.97
24	21880	1.7	1.7	1.00
25	5559	5.4	3.2	0.59
26	14958	18.6	12.9	0.69
27	9086	2.1	1.8	0.86
28	23838	1.6	1.7	0.94
29	13342	3.6	1.5	0.42
30	18741	11	6.9	0.63
31	74			
32	412	1.5	1.2	0.80
33	1521	3.1	2.2	0.71
34	19595	3.7	3.2	0.86
35	18421			

No.	Cat.	Depth[1]	Depth[2]	CCI
36	15010			
37	19354			
38	16410	1	1.6	0.63
39	11875	1.6	1.1	0.69
40	17884	2.2	1.4	0.64
41	17612			
42	3103	1.5	1.8	0.83
43	14910			
44	15014	2.1	2	0.95
45	26860	1.4	1.2	0.86
46	23641			
47	27018			
48	332	2.8	2.2	0.79
49	15013	1.1	0.6	0.55
50	7954	8.2	4.5	0.55
51	20529	1.8	1.1	0.61
52	27908	2.3	1.5	0.65
53	13487	1.2	0.8	0.67
54	30439	1.3	1.4	0.93
55	180	2.1	2.3	0.91
56	22651			
57	15860	1.7	1.4	0.82
58	644			
59	11114	2.2	1.5	0.68
60	8743	1.3	0.8	0.62
61	1600			
62	158			
63	329			
64	18721	1.5	1.3	0.87
65	8862	1.3	1.1	0.85
66	1522	1.3	1.8	0.72
67	1857	2	1	0.50
68	13727	5.3	4.1	0.77
69	1742	1.6	1.6	1.00
70	14404			
71	15850			
72	22125	1.3	0.5	0.38

No.	Cat.	Depth[1]	Depth[2]	CCI
73	17975	3.1	2.4	0.77
74	147			
75	19754	3.9	4.1	0.95
76	16321	8	6.3	0.79
77	7497	5	4.4	0.88
78	6699	1.2	0.8	0.67
79	15011			
80	13814	4	3.2	0.80
81	4592	10.3	8.2	0.80
82	16885	6.2	3.3	0.53
83	17977	10.9	10.3	0.94
84	21879	1.8	1.5	0.83
85	15851			
86	392	2.4	1.2	0.50
87	15012			
88	h1 f168	2.2	1.5	0.68
89	2749	2.3	1.7	0.74
90	1507	1	1.2	0.83
91	15849			
92	1318			
93	26449			
94	15789			
95	14890	1.4	0.6	0.43
96	26357			
97	1744	1.2	1.3	0.92
98	333			
99	6702			
100	827	1.2	1	0.83
101	22628	0.9	0.7	0.78
102	1512			
103	12439	1.3	0.7	0.54
104	1110			
105	23704	0.8	1.2	0.67
106	23698	3.1	2.5	0.81
107	23323	2.4	1.5	0.63
108	23700	2.4	2.4	1.00
109	23703	2.8	1.8	0.64

No.	Cat.	Depth[1]	Depth[2]	CCI
110	23105	5.3	4.6	0.87
111	23965			
112	23967	2.7	2.1	0.78
113	7415	0.6	0.8	0.75
114	385	1.5	1.5	1.00
115	386	2	2.2	0.91
116	387			
117	388			
118	10110	0.8	0.8	1.00
119	10111	1.4	1.2	0.86
120	10112			
121	10113			
122	10114			
123	367			
124	368			
125	369			
126	370			
127	371			
128	372			
129	415	2.3	1.5	0.65
130	416			
131	417			
132	418			
133	22379	1.5	0.8	0.53
134	456	0.9	0.5	0.56
135	14403	3.7	2.2	0.59
136	13806	1	0.9	0.90
137	19666			
138	20300			
139	15244			
140	15245			
141	15246			
142	11110	1.9	1.5	0.79
143	422	9.7	7.9	0.81
144	828/2104	5.9	4.7	0.80
145	2403	1.6	1.1	0.69
146	2103	1.6	1.1	0.69

No.	Cat.	Depth[1]	Depth[2]	CCI
147	5126			
148	5127			
149	18456			
150	18457			
151	18458			
152	18459			
153	21877	1.9	2	0.95
154	20365	3	3.3	0.91
155	20366	1.6	1.3	0.81
156	2717			
157	409			
158	256			
159	421			
160	1338			
161	23705			
162	23684			
163	394			
164	23321			
165	411			
166	408			
167	391	2.3	1.5	0.65
168	2001			
169	23707	1.8	2	0.90
170	405			
171	406			
172	407			
173	315			
174	316			
175	317			
176	318			
177	24922			
178	24761			
179	24762			
180	24763			
181	24921			
182	319			
183	320			

No.	Cat.	Depth[1]	Depth[2]	CCI
184	321			
185	322			
186	323			
187	5940	2.8	1.8	0.64
188	287			
189	288			
190	289			
191	290			
192	291			
193	292			
194	293			
195	294			
196	295			
197	296			
198	297			
199	298			
200	299			
201	300			
202	301			
203	302			
204	303			
205	304			
206	305			
207	306			
208	307			
209	308			
210	309			
211	310			
212	311			
213	312			
214	313			
215	314			

Crudity Index: The Hubbert Site (BbGw-9)

Number	Catalogue	Thick	Thin	C.I.
1	2881	6.3	5.7	0.90
2	65	8.4	8.2	0.98
3	70	4.8	3.8	0.79
4	225	5.6	4.4	0.79
5	248	11.4	10.9	0.96
6	283	9.3	7.7	0.83
7	289	5.9	4.7	0.80
8	294			
9	295			
10	426	6.2	5.3	0.85
11	461	3.5	3.5	1.00
12	448	6.1	5.1	0.84
13	520	6.7	6.3	0.94
14	653	5.7	5.3	0.93
15	654	7	5.3	0.76
16	751	6.5	5.6	0.86
17	752	5.3	5.1	0.96
18	802/881	7.6	5.7	0.75
19	830	5.9	5.5	0.93
20	844			
21	931	8.6	7.5	0.87
22	974	9.4	7.7	0.82
23	1036	9.2	7.7	0.84
24	1037	9.9	8.6	0.87
25	1040	7.3	7	0.96
26	1051	8.7	8.6	0.99
27	1055	6.4	6	0.94
28	1056	6.4	4.8	0.75
29	1064	5.7	5.4	0.95
30	1242	5	4.8	0.96
31	1244	4.9	4.7	0.96
32	1245	6	5.9	0.98
33	1246	6	6	1.00
34	1247	5.5	5.5	1.00
35	1324			

Number	Catalogue	Thick	Thin	C.I.
36	1361	5.6	4.7	0.84
37	1369	7	6.7	0.96
38	1370	7.7	4.4	0.57
39	1432/1536	6.6	6.2	0.94
40	1511	6	4.8	0.80
41	1514	7.2	6.4	0.89
42	1581	10.3	9.8	0.95
43	1582	5.7	5.2	0.91
44	1583	5.4	5.1	0.94
45	1662	6.6	5.4	0.82
46	1689	7.1	6.7	0.94
47	1735	4.4	4.3	0.98
48	1742	7.6	6.9	0.91
49	1770	6.5	5.3	0.82
50	1791	5.2	5.1	0.98
51	1952	6.1	5.5	0.90
52	2053	5.9	5	0.85
53	2122	4.6	3.8	0.83
54	2155	6.1	5.7	0.93
55	2156	6.2	6	0.97
56	2208	6.6	6.5	0.98
57	2241	6.7	6	0.90
58	2242	5.6	4.3	0.77
59	2243	5.1	4.8	0.94
60	2246	6.8	5.6	0.82
61	2271	9	8.3	0.92
62	2294	6.6	5.5	0.83
63	2312	3.3	3	0.91
64	2336	7.5	5.7	0.76
65	2503	5.8	5.2	0.90
66	2531	5.1	4.5	0.88
67	2551	7.5	7.2	0.96
68	2592	5.8	4.9	0.84
69	2652	8.5	7.6	0.89
70	2691	6.4	5.5	0.86
71	2762	6	5.6	0.93
72	2763	3.7	3.6	0.97

Number	Catalogue	Thick	Thin	C.I.
73	2851	6.9	6.8	0.99
74	2882	10.8	10	0.93
75	3008	8.2	7.6	0.93
76	3010	5.8	5.6	0.97
77	3056	15.1	11.2	0.74
78	3074	4.5	4	0.89
79	3321	6.8	6.6	0.97
80	3322	5.3	4	0.75
81	3351	6.1	5.3	0.87
82	3361	7.2	6.9	0.96
83	3732	6.4	6	0.94
84	3734	5.9	5.8	0.98
85	3991	5.2	5	0.96
86	4091	5.8	4.7	0.81

Curvature Consistency Index: The Hubbert Site (BbGw-9)

Number	Catalogue	Depth[1]	Depth[2]	CCI
1	2881	26.2	26	0.99
2	65	2.1	1.8	0.86
3	70	1.3	1.9	0.68
4	225	1.6	1.3	0.81
5	248			
6	283	1.6	1.2	0.75
7	289			
8	294			
9	295			
10	426			
11	461			
12	448	1.2	1	0.83
13	520	1	0.7	0.70
14	653	2.4	1.2	0.50
15	654			
16	751			
17	752			
18	802/881	10.2	7.6	0.75
19	830			
20	844			
21	931	15.2	12.6	0.83
22	974	1.4	1.1	0.79
23	1036	1.7	1.3	0.76
24	1037	1.9	1.1	0.58
25	1040	2.2	1.9	0.86
26	1051	2.3	1.6	0.70
27	1055			
28	1056			
29	1064	1.7	0.6	0.35
30	1242	0.8	0.6	0.75
31	1244			
32	1245			
33	1246			
34	1247			
35	1324			

Number	Catalogue	Depth[1]	Depth[2]	CCI
36	1361			
37	1369			
38	1370			
39	1432/1536	3.6	2.3	0.64
40	1511	4.5	2	0.44
41	1514	1.9	2	0.95
42	1581	3.9	2.5	0.64
43	1582	2.1	1.1	0.52
44	1583			
45	1662			
46	1689			
47	1735	1.1	1.6	0.69
48	1742			
49	1770			
50	1791			
51	1952	2.6	2.2	0.85
52	2053	2.4	1.5	0.63
53	2122			
54	2155			
55	2156			
56	2208	6.7	5.7	0.85
57	2241	1	1	1.00
58	2242	1.2	1	0.83
59	2243			
60	2246			
61	2271	0.9	1	0.90
62	2294	1.8	2	0.90
63	2312	2	1.8	0.90
64	2336	2.4	2.4	1.00
65	2503			
66	2531	2.6	2	0.77
67	2551	1.3	0.9	0.69
68	2592			
69	2652	0.6	0.7	0.86
70	2691			
71	2762	1.4	1	0.71
72	2763			

Number	Catalogue	Depth[1]	Depth[2]	CCI
73	2851			
74	2882	0.8	0.8	1.00
75	3008	1.6	0.9	0.56
76	3010	3.6	2.9	0.81
77	3056	1.6	1	0.63
78	3074	1.1	1	0.91
79	3321	2.4	3.1	0.77
80	3322	1.8	1.7	0.94
81	3351			
82	3361	1	1.1	0.91
83	3732			
84	3734			
85	3991	1.2	0.8	0.67
86	4091			

Crudity Index: The Dunsmore Site (BcGw-10)

No.	Catalogue	Thick	Thin	CI
1	2369	9.8	7.5	0.77
2	2466	8.6	7.2	0.84
3	238	7.3	4.2	0.58
4	1728	7.7	7.3	0.95
5	1744	7.2	7	0.97
6	3162	7.3	6.9	0.95
7	1154	5	4.7	0.94
8	3124	7.1	6.9	0.97
9	31	8.3	8	0.96
10	2534	8.7	8.2	0.94
11	1570	7.8	7	0.90
12	2151	8	7	0.88
13	1527	6	5.2	0.87
14	0633/0636	8.7	7.9	0.91
15	4271	6.5	6	0.92
16	2161	4.5	4	0.89
17	2311	7.2	7	0.97
18	2492	10.3	8	0.78
19	big0443	8.1	5.5	0.68
20	little0443	5.1	5.1	1.00
21	1727	9.3	8.1	0.87
22	1693	12.3	10	0.81
23	1745	6	5.1	0.85
24	1526	7.1	6.4	0.90
25	1603	9.5	7.1	0.75
26	1572	10.7	7	0.65
27	1649	7.5	7.3	0.97
28	1815	7.1	6.6	0.93
29	1601	5.7	5.5	0.96
30	1607	9.6	9.1	0.95
31	1571	2.9	2.5	0.86
32	1573	4.4	3.7	0.84
33	1600	6	4.6	0.77
34	1648	7.9	4.6	0.58
35	1691	6.4	5.2	0.81

No.	Catalogue	Thick	Thin	CI
36	1762	7.6	6.2	0.82
37	1646	4.9	3.9	0.80
38	1692	7.4	6.6	0.89
39	1504	5	5	1.00
40	1602	6.9	4.6	0.67
41	1606	7.5	6.6	0.88
42	1621	7.5	6.7	0.89
43	1647	7.6	5.7	0.75
44	1726	9.2	8	0.87
45	1605	5.5	4.8	0.87
46	1477	6.1	5.9	0.97
47	1622	5.4	4.9	0.91
48	1763	3.5	3.1	0.89
49	1604	5.4	4.6	0.85
50	1620	5.4	4.9	0.91
51	174	6.7	5.8	0.87
52	56	5.9	5.4	0.92
53	444	8.2	7.2	0.88
54	86	7.2	6.9	0.96
55	405/6/8	11.7	11.3	0.97
56	173	15.7	9.1	0.58
57	445/6	7.5	6.8	0.91
58	419	8.2	7.6	0.93
59	91	8.9	8.3	0.93
60	237	5.9	5.5	0.93
61	433	7.7	5.9	0.77
62	176	12.7	9.4	0.74
63	293	7	6.5	0.93
64	358	11.9	9.7	0.82
65	87	6.2	5.8	0.94
66	407	12.4	10.5	0.85
67	57	5.6	5.2	0.93
68	418	5.9	5.4	0.92
69	85	8.5	5.2	0.61
70	202	9.1	7.2	0.79
71	432	5.5	5.4	0.98
72	175	4.4	4.2	0.95

No.	Catalogue	Thick	Thin	CI
73	2254	10.4	7.6	0.73
74	2272	9.8	9.4	0.96
75	2153	6.2	6.1	0.98
76	2222	6.4	6	0.94
77	2154	2.8	2.5	0.89
78	2567	7	6.3	0.90
79	2152	4.6	4.2	0.91
80	3332	12.1	10.7	0.88
81	3314	7.5	5.3	0.71
82	2878	8.5	6.9	0.81
83	2853	15.1	13	0.86
84	2877	8.8	8.4	0.95
85	2855	10.2	8.9	0.87
86	3125	10.1	9.5	0.94
87	3163	5.2	4.3	0.83
88	2854	8.5	8.5	1.00
89	2955	5.8	5.3	0.91
90	1090	5.8	5.5	0.95
91	1021	6.9	5.4	0.78
92	1065	4.2	4	0.95
93	1038	7.3	7	0.96
94	1119	7.6	6	0.79
95	996	10.1	9.4	0.93
96	1091	5.3	4.9	0.92
97	997	5.5	5.2	0.95
98	1036	5	5	1.00
99	1155	5.7	5.3	0.93
100	995	4.8	4.4	0.92
101	1064	6.5	6.3	0.97
102	1120	6.5	4.9	0.75
103	1066	6.9	6.2	0.90
104	1157	8.8	8.7	0.99
105	1156	10.1	8.3	0.82
106	699	8.2	7.5	0.91
107	547	8.6	7.6	0.88
108	621	13	12.2	0.94
109	619	5	4.8	0.96

No.	Catalogue	Thick	Thin	CI
110	495	5.5	5.5	1.00
111	698	8.4	8.4	1.00
112	852	6.5	5.8	0.89
113	700	9.6	9.1	0.95
114	1068	7.1	6.5	0.92
115	620	6.3	5.5	0.87
116	674	11.8	10.5	0.89
117	841	9.4	9.2	0.98
118	673	11.6	9.2	0.79
119	513	11	9.4	0.85
120	1037	5.6	5.5	0.98
121	1067	7.4	7.3	0.99
122	1039	7.5	7.1	0.95
123	631	9	5.8	0.64
124	2370	9.6	8.2	0.85
125	2399	7.5	6.1	0.81
126	2398	6.8	6.6	0.97
127	2400	6.4	5.6	0.87
128	2403	12.3	11.3	0.92
129	2397	10.6	9.5	0.90
130	2404	12.3	11.6	0.94
131	2401	7.8	6.2	0.79
132	2402	6.1	4.5	0.74
133	1363	7.5	5.9	0.79
134	1371	11.8	10.6	0.90
135	1387	7.2	7.2	1.00
136	1369	9	7.5	0.83
137	1360	10.7	10.4	0.97
138	1382	8	7.1	0.89
139	1380	11.9	10.2	0.86
140	1364	7	5.4	0.77
141	1379	8.6	7.6	0.88
142	1384	10.2	8.6	0.84
143	1381	10.8	9.8	0.91
144	1361	6	5.5	0.92
145	1365	7.9	7.4	0.94
146	1383	9.9	6.5	0.66

No.	Catalogue	Thick	Thin	CI
147	1385	7.5	6.3	0.84
148	1386	10.2	9.9	0.97
149	1362	7.5	7.4	0.99
150	1388	8.7	7.9	0.91
151	1392	9	8	0.89
152	1368	6.4	5	0.78
153	1367	6.6	6	0.91
154	1391	7.4	6.9	0.93
155	1389	10	8.5	0.85
156	1372	8	7.7	0.96
157	1366	8	7.9	0.99
158	1390	11	9.5	0.86

Curvature Consistency Index: The Dunsmore Site (BcGw-10)

No.	Catalogue	Depth[1]	Depth[2]	CCI
1	2369	2.6	2.9	0.90
2	2466	2.5	1.6	0.64
3	238	9.5	5.6	0.59
4	1728	2	1.2	0.60
5	1744	3.1	2.2	0.71
6	3162	3.9	2	0.51
7	1154	1	0.7	0.70
8	3124	5.3	3.7	0.70
9	31	2.3	1.8	0.78
10	2534	3.1	2.5	0.81
11	1570	1.8	2.1	0.86
12	2151	6.1	6.5	0.94
13	1527	2.2	1.8	0.82
14	0633/0636	28.5	19.9	0.70
15	4271	26.8	24	0.90
16	2161	2.8	2	0.71
17	2311	0.9	0.9	1.00
18	2492	1.2	1.5	0.80
19	big0443	1.3	1	0.77
20	little0443	1.2	1.1	0.92
21	1727	0.8	1.4	0.57
22	1693			
23	1745	1	0.9	0.90
24	1526	1.3	0.8	0.62
25	1603	4.6	4.2	0.91
26	1572	1	1.8	0.56
27	1649	2.2	2.2	1.00
28	1815	2.6	2.5	0.96
29	1601	0.9	0.8	0.89
30	1607			
31	1571			
32	1573	0.9	1.2	0.75
33	1600	4.6	2.6	0.57
34	1648	1.9	2.3	0.83
35	1691	4.2	3.5	0.83

No.	Catalogue	Depth[1]	Depth[2]	CCI
36	1762	1.5	0.8	0.53
37	1646	0.7	0.1	0.14
38	1692			
39	1504	1.3	1.2	0.92
40	1602			
41	1606			
42	1621			
43	1647	0.7	0.7	1.00
44	1726	1.2	1.1	0.92
45	1605	0.5	1	0.50
46	1477			
47	1622	1.3	0.9	0.69
48	1763			
49	1604			
50	1620	0.7	0.7	1.00
51	174	0.5	1.2	0.42
52	56	0.9	1.1	0.82
53	444	0.7	0.5	0.71
54	86			
55	405/6/8	3.5	5.1	0.69
56	173			
57	445/6	10	6.4	0.64
58	419	1.9	1.9	1.00
59	91	0.7	0.6	0.86
60	237	1.5	1.2	0.80
61	433	1.6	1.5	0.94
62	176			
63	293	1.7	1.1	0.65
64	358			
65	87	1	1.3	0.77
66	407			
67	57			
68	418	1.1	1.2	0.92
69	85	0.5	1.8	0.28
70	202			
71	432	0.7	1.1	0.64
72	175			

No.	Catalogue	Depth[1]	Depth[2]	CCI
73	2254	1.9	1.7	0.89
74	2272	1.9	1.8	0.95
75	2153	2.2	1.7	0.77
76	2222			
77	2154			
78	2567	1.6	1.4	0.87
79	2152	2.6	2.1	0.81
80	3332	2.3	1.5	0.65
81	3314			
82	2878	2.5	1.8	0.72
83	2853	5.1	3.5	0.69
84	2877			
85	2855			
86	3125	2	1.1	0.55
87	3163	0.4	0.6	0.67
88	2854			
89	2955	0.7	0.5	0.71
90	1090			
91	1021	1.4	1.1	0.79
92	1065			
93	1038			
94	1119	1.9	1.6	0.84
95	996			
96	1091	1.3	1.4	0.93
97	997	0.6	0.8	0.75
98	1036			
99	1155	0.6	0.3	0.50
100	995	0.8	0.8	1.00
101	1064	0.5	0.8	0.63
102	1120	1.3	0.7	0.54
103	1066			
104	1157	0.9	1.2	0.75
105	1156			
106	699	0.5	0.6	0.83
107	547	1	0.8	0.80
108	621	1.8	1.8	1.00
109	619	3.4	2.3	0.68

No.	Catalogue	Depth[1]	Depth[2]	CCI
110	495	1.9	1.4	0.74
111	698	3.5	2.5	0.71
112	852	1.6	0.9	0.56
113	700			
114	1068	0.8	0.9	0.89
115	620	1	1.2	0.83
116	674			
117	841	0.8	1	0.80
118	673			
119	513			
120	1037			
121	1067			
122	1039			
123	631			
124	2370	3.3	2.2	0.67
125	2399	2.6	2.1	0.81
126	2398	2.3	1.8	0.78
127	2400	1.6	1.4	0.87
128	2403	1.7	1.4	0.82
129	2397			
130	2404	1.8	2.2	0.82
131	2401			
132	2402	1.1	1.1	1.00
133	1363	2.2	1.7	0.77
134	1371	0.9	1.2	0.75
135	1387	1.2	1.8	0.67
136	1369	2.9	2.4	0.83
137	1360	1.1	1.7	0.65
138	1382			
139	1380	2.9	1.8	0.62
140	1364	1	1.1	0.91
141	1379	1.4	0.7	0.50
142	1384			
143	1381	1.2	0.9	0.75
144	1361	1.9	2.1	0.90
145	1365			
146	1383	1.8	0.9	0.50

No.	Catalogue	Depth[1]	Depth[2]	CCI
147	1385			
148	1386			
149	1362	2	2.4	0.83
150	1388			
151	1392	2	1.8	0.90
152	1368			
153	1367	0.8	1.8	0.44
154	1391			
155	1389	1.6	1.2	0.75
156	1372	1.8	1.4	0.78
157	1366	2.1	1.9	0.90
158	1390			

Crudity Index: The Dougall Site (BdGu-2)

Number	Catalogue	Thick	Thin	CI
1	9a	7.3	6.4	0.88
2	9b	4.5	4.1	0.91
3	9c	7.3	5.9	0.81
4	9d	8.3	7.9	0.95
5	9e	8.9	8.4	0.94
6	9f	6.9	6.7	0.97
7	9g	9.4	7.8	0.83
8	9h	7.1	7	0.99
9	9i	8.9	7.7	0.87
10	9j			
11	9k			
12	47a	8.1	6.9	0.85
13	47b	10.1	8.2	0.81
14	47c	9.6	9.2	0.96
15	47d	6.9	6.8	0.99
16	47e	7.1	6.4	0.90
17	47f	7	5.7	0.81
18	47g			
19	86a	10.6	8.7	0.82
20	86b	9	9	1.00
21	86c			
22	86d	6.9	6.5	0.94
23	86e			
24	86f	8	6.7	0.84
25	86g			
26	86h	7.7	7.4	0.96
27	86i	7.7	6.5	0.84
28	86j	8.1	7.3	0.90
29	86k	6.3	5.7	0.90
30	86l	10.5	10.1	0.96
31	86m	7.8	7.6	0.97
32	86n	8	5	0.63
33	86o	7.7	6	0.78
34	86p	6.7	6.6	0.99
35	86q	6.5	6.4	0.98

Number	Catalogue	Thick	Thin	CI
36	86r	7.9	7.7	0.97
37	86s			
38	86t			
39	86u	4.1	3.9	0.95
40	86v	7.3	6.8	0.93
41	86w	7.9	7.7	0.97
42	86x	7.7	7.5	0.97
43	86y	3.9	2.5	0.64
44	86z	5.6	4	0.71
45	86aa			
46	86bb	5.8	5.4	0.93
47	86cc	5.1	4.7	0.92
48	86dd	7.7	7.2	0.94
49	86ee	10	9.2	0.92
50	86ff	4.4	4.1	0.93
51	86gg	6.6	6.1	0.92
52	86hh	8.7	7.4	0.85
53	86ii	6.2	6.1	0.98
54	86jj	8.3	7.9	0.95
55	86kk	10.4	9.3	0.89
56	86ll	8	7.6	0.95
57	86mm	9.8	9.3	0.95
58	86nn			
59	120a	7	5.7	0.81
60	120b	8.8	8.8	1.00
61	120c	7.6	7.4	0.97
62	153a	7.2	7	0.97
63	153/174	7	6.1	0.87
64	153b	6.8	6.6	0.97
65	153c	6.2	6	0.97
66	153d	5.6	5.5	0.98
67	153e	7.1	6.9	0.97
68	153f			
69	153g	7.9	7.6	0.96
70	153h	7	4.5	0.64
71	153i	5.2	4.3	0.83
72	153j	7.1	7	0.99

Number	Catalogue	Thick	Thin	CI
73	153k	5.4	3.7	0.69
74	153l	8.4	7.5	0.89
75	191a	5.1	4.9	0.96
76	191b	10.4	9.5	0.91
77	191c	11.4	9.2	0.81
78	191d	6.1	5.4	0.89
79	191e	7.4	5.9	0.80
80	191f	7.8	7.2	0.92
81	191g	8.3	8.1	0.98
82	191h	8.2	7	0.85
83	191i	7.5	7.5	1.00
84	191j	8.4	7.4	0.88
85	191k	5.4	5	0.93
86	191l	5.2	5.2	1.00
87	191m	8.4	7.6	0.90
88	191n			
89	191o	10.9	10.9	1.00
90	191p	5.1	4.7	0.92
91	191q	6	5.7	0.95
92	214a	4	3.9	0.98
93	214b	10.6	10.6	1.00
94	214c	10.2	8.5	0.83
95	214d	6.8	5	0.74
96	214e	5.8	4.9	0.84
97	214f	9.5	8.9	0.94
98	214g	6.9	6.2	0.90
99	214h	8.8	8.4	0.95
100	214i	5.9	5.8	0.98
101	214j	5.2	4.4	0.85
102	214k			
103	215	9.5	9.4	0.99
104	235a	4.3	3.9	0.91
105	235b	4.6	3.9	0.85
106	235c	6.8	6.2	0.91
107	253a	9.4	9	0.96
108	253b	9.6	6.9	0.72
109	253c	7.7	7	0.91

Number	Catalogue	Thick	Thin	CI
110	253d	7.3	6.6	0.90
111	253e	7.8	7.2	0.92
112	253f	7.7	6.5	0.84
113	253g	6.5	5.3	0.82
114	265	6.9	6.5	0.94
115	10a	8.5	6.5	0.76
116	10b	9.6	5	0.52
117	36a	7.5	7	0.93
118	36b	7.1	5.7	0.80
119	48a	5.8	4.9	0.84
120	87a	8.7	8.4	0.97
121	154a	7	6	0.86
122	2/263	5.1	5	0.98
123	40a	7.1	5.3	0.75
124	40b	6.5	6.3	0.97
125	40c	5.5	5.3	0.96
126	42a	10.2	7.3	0.72
127	78a	6.8	5.8	0.85
128	188a	7.6	7.4	0.97
129	189a	12.2	10.9	0.89
130	189b	10.5	8.5	0.81
131	192a	7.1	4.8	0.68
132	192b	9.3	8.7	0.94
133	246a			

Curvature Consistency Index: The Dougall Site (BdGu-2)

Number	Catalogue	Depth[1]	Depth[2]	CCI
1	9a	1.4	2.1	0.67
2	9b			
3	9c	2	1.3	0.65
4	9d	1.5	1	0.67
5	9e	0.8	0.9	0.89
6	9f	1.5	2	0.75
7	9g	1.5	1.8	0.83
8	9h			
9	9i	1.2	1	0.83
10	9j			
11	9k	3.5	2.7	0.77
12	47a	1.1	1.3	0.85
13	47b			
14	47c	1.7	1.5	0.88
15	47d			
16	47e	3.2	1.5	0.47
17	47f	1.1	0.6	0.55
18	47g			
19	86a	1.5	1.3	0.87
20	86b	1.1	0.7	0.64
21	86c			
22	86d	2.1	2	0.95
23	86e			
24	86f			
25	86g			
26	86h			
27	86i	1	1	1.00
28	86j	1	1.1	0.91
29	86k	1.1	1.8	0.61
30	86l			
31	86m	0.7	1.2	0.58
32	86n			
33	86o	1.1	1.1	1.00
34	86p	1.1	1.7	0.65
35	86q			

Number	Catalogue	Depth[1]	Depth[2]	CCI
36	86r			
37	86s			
38	86t			
39	86u	1.6	0.7	0.44
40	86v	1.7	1.1	0.65
41	86w			
42	86x	1.5	1.2	0.80
43	86y			
44	86z			
45	86aa			
46	86bb			
47	86cc			
48	86dd			
49	86ee	0.9	0.7	0.78
50	86ff	0.9	1.1	0.82
51	86gg			
52	86hh			
53	86ii			
54	86jj	0.9	1.3	0.69
55	86kk			
56	86ll			
57	86mm			
58	86nn			
59	120a	10.6	5.8	0.55
60	120b	1.1	1	0.91
61	120c	1.2	1.4	0.86
62	153a	15.8	14.6	0.92
63	153/174	2	1.5	0.75
64	153b			
65	153c	2.4	2	0.83
66	153d	1.3	1.5	0.87
67	153e	0.9	1.6	0.56
68	153f			
69	153g			
70	153h			
71	153i			
72	153j	2.2	1.4	0.64

Number	Catalogue	Depth[1]	Depth[2]	CCI
73	153k			
74	153l			
75	191a	1.3	0.7	0.54
76	191b			
77	191c			
78	191d	3	1.8	0.60
79	191e			
80	191f			
81	191g	1.7	2.3	0.74
82	191h	1.5	1.7	0.88
83	191i	1.1	0.5	0.45
84	191j	1.4	1.1	0.79
85	191k			
86	191l			
87	191m			
88	191n			
89	191o			
90	191p			
91	191q			
92	214a	1.9	1.4	0.74
93	214b			
94	214c			
95	214d	1	1.5	0.67
96	214e	4	4.6	0.87
97	214f	1.6	1.2	0.75
98	214g			
99	214h	1.7	1.2	0.71
100	214i			
101	214j	2.1	1.4	0.67
102	214k			
103	215			
104	235a	1.1	1.3	0.85
105	235b			
106	235c	2.3	2.3	1.00
107	253a			
108	253b	4.3	3.7	0.86
109	253c	3	2.1	0.70

Number	Catalogue	Depth[1]	Depth[2]	CCI
110	253d	2	2	1.00
111	253e			
112	253f	1	0.7	0.70
113	253g	1.6	1.2	0.75
114	265	1.2	1	0.83
115	10a			
116	10b			
117	36a			
118	36b	2.1	1.3	0.62
119	48a			
120	87a			
121	154a			
122	2/263	2.4	2.1	0.88
123	40a	12.6	10.1	0.80
124	40b	2.4	2.1	0.88
125	42a	3.3	2.6	0.79
126	78a	1.9	1.1	0.58
127	188a	2	1.9	0.95
128	189a			
129	189b	2.8	2.2	0.79
130	192a			
131	192b			
132	246a			

Crudity Index: The Molson Site (BcGw-27)

No.	Catalogue	Thick	Thin	CI
1	31E12S P.Z	5.6	5	0.89
2	13S28E	8	7.8	0.98
3	0S47E	9.7	7.4	0.76
4	4N57E	7.6	6	0.79
5	3N51E	8.4	6.8	0.81
6	2N51E			
7	0S43E	9.7	8.6	0.89
8	13N55E	8.6	7.1	0.83
9	01N49E	7.4	6.6	0.89
10	1N50E	5.2	4.3	0.83
11	3N55E	6.9	5.5	0.80
12	2S50E			
13	H5F127	6.9	6.6	0.96
14	35S40E	6	4.8	0.80
15	H5F100	9.5	9.2	0.97
16	H5F127	10.8	9.8	0.91
17	20S29W	6.5	5.5	0.85
18	H1F42	6.4	5.9	0.92
19	H1F75	10	9.3	0.93
20	51N31E	4.6	4.5	0.98
21	51N30E			
22	51N31E	7.3	6.2	0.85
23	12S25W	6.8	5.6	0.82
24	12S25W	10.9	10.5	0.96
25	9S24W	7	6.9	0.99
26	13S24W	6.7	3.6	0.54
27	13S26W	11.9	7.9	0.66
28	18S29W	5.2	4.7	0.90
29	19S29W	6.3	6.1	0.97
30	15S26W	7.1	6.5	0.92
31	19S29W	5.1	4.9	0.96
32	17S29W			
33	12S25W	8.2	6.5	0.79
34	8S21W	14.7	13.6	0.93
35	19S29W	12.5	12.1	0.97

No.	Catalogue	Thick	Thin	CI
36	10S25W	6.6	4.5	0.68
37	11S24W	5.4	4.8	0.89
38	11S24W	7.2	6.2	0.86
39	11S24W	7.3	6.6	0.90
40	17S30W	8.2	6.6	0.80
41	10S24W	8.2	7.1	0.87
42	2N47E	3.2	2.7	0.84
43	44N23E	8.5	8.4	0.99
44	40N17E	6.9	5.7	0.83
45	44N22E	6.9	4.7	0.68
46	41N21E	9.1	8.3	0.91
47	41N27E	5.9	5.8	0.98
48	39N21E	6.5	6.1	0.94
49	44N22E	7.4	7.3	0.99
50	44N21E	5.8	5.1	0.88
51	43N27E	10.5	9.5	0.90
52	43N19E	6.3	6	0.95
53	44N22E	7.1	6.6	0.93
54	47N22E	5.8	5	0.86
55	43N20E	5.8	5	0.86
56	42N22E	10.9	9.9	0.91
57	44N2E	7.6	6.7	0.88
58	39N22E	4.3	3.8	0.88
59	45N24E			
60	45N24E	6.6	5	0.76
61	44N21E	7.2	6.8	0.94
62	F15H9	13.1	12.2	0.93
63	H9F19	10.9	6.5	0.60
64	PM70H9	7.2	7.1	0.99
65	H9F19	4.8	4.4	0.92
66	H8F6	4.6	4.3	0.93
67	17S30W	7.2	7.1	0.99
68	17S29W	8.3	7.8	0.94
69	12S26W	8.4	6.2	0.74
70	H1F42	5.4	4.9	0.91
71	H1F72A	7.8	7.1	0.91
72	H1F2A	8.5	8.5	1.00

No.	Catalogue	Thick	Thin	CI
73	H1F72A	8	7	0.88
74	H1F42	7	6.2	0.89
75	9N2E	7.9	7.8	0.99
76	H4F85	6.3	5.7	0.90
77	10N0E	8.3	8	0.96
78	20N15E	3.3	2.8	0.85
79	F131H4	5.9	5.2	0.88
80	F89H4	6	5.3	0.88
81	8N2E	5.9	5.2	0.88
82	H4 91/93/94	4.2	4.1	0.98
83	H9F19	3.9	3.8	0.97
84	39N21E	5.8	5.4	0.93
85	H7F25	9.1	8.7	0.96

Curvature Consistency Index: The Molson Site (BcGw-27)

No.	Cat.	Depth[1]	Depth[2]	CCI
1	31E12S			
2	13S28E	1.3	1.2	0.92
3	0S47E			
4	4N57E			
5	3N51E	1.7	1.4	0.82
6	2N51E			
7	0S43E			
8	13N55E	3.4	2.7	0.79
9	01N49E			
10	1N50E			
11	3N55E	2.2	2.5	0.88
12	2S50E			
13	H5F127	1.4	1.3	0.93
14	35S40E	2.2	2.4	0.92
15	H5F100	1.4	1.9	0.74
16	H5F127	2.4	2	0.83
17	20S29W	1.5	1.2	0.80
18	H1F42	1.7	1.2	0.71
19	H1F75	2.8	2.2	0.79
20	51N31E	3.2	2.7	0.84
21	51N30E			
22	51N31E	1.8	1.4	0.78
23	12S25W	3.3	4.2	0.79
24	12S25W			
25	9S24W			
26	13S24W			
27	13S26W			
28	18S29W			
29	19S29W	2.6	2.6	1.00
30	15S26W	2.3	1.7	0.74
31	19S29W	1.2	1	0.83
32	17S29W			
33	12S25W	3.9	3.1	0.79
34	8S21W	3.5	2.8	0.80
35	19S29W	2.1	1.8	0.86

No.	Cat.	Depth[1]	Depth[2]	CCI
36	10S25W			
37	11S24W	2	1.7	0.85
38	11S24W	3.4	4.2	0.81
39	11S24W	5.3	5.1	0.96
40	17S30W	7.5	6.2	0.83
41	10S24W			
42	2N47E			
43	44N23E	1.8	1.7	0.94
44	40N17E			
45	44N22E	2.7	2.1	0.78
46	41N21E			
47	41N27E			
48	39N21E			
49	44N22E	1.8	1.1	0.61
50	44N21E	1.5	1.3	0.87
51	43N27E			
52	43N19E			
53	44N22E			
54	47N22E			
55	43N20E			
56	42N22E	1.1	1.3	0.85
57	44N2E	1.8	1.7	0.94
58	39N22E			
59	45N24E			
60	45N24E	3.1	1.1	0.35
61	44N21E			
62	F15H9			
63	H9F19			
64	PM70H9	4	3.9	0.98
65	H9F19	1.3	1	0.77
66	H8F6	2.9	2.5	0.86
67	17S30W			
68	17S29W			
69	12S26W	2	1.9	0.95
70	H1F42	6.3	4.9	0.78
71	H1F72A	7.7	6.5	0.84
72	H1F2A	2.4	2.5	0.96

No.	Cat.	Depth[1]	Depth[2]	CCI
73	H1F72A	2.5	3	0.83
74	H1F42	1.1	1.6	0.69
75	9N2E	0.8	1.7	0.47
76	H4F85	4.6	4.1	0.89
77	10N0E	2.7	3.2	0.84
78	20N15E	2.1	2	0.95
79	F131H4			
80	F89H4	0.9	0.9	1.00
81	8N2E			
82	H4 91/93/94	2.8	1.9	0.68
83	H9F19			
84	39N21E	2.6	2.3	0.88
85	H7F25			

Crudity Index: The Benson Site (BdGr-1) - Adult Pots

Number	Catalogue	Thick	Thin	C.I.
1	6641/6622	11.4	9.3	0.82
2	6678	6.8	6.7	0.99
3	6342	6.6	5.2	0.79
4	6623/6648			
5	11739			
6	9604	9.1	8	0.88
7	8972	4.3	4	0.93
8	8880	8.3	8.3	1.00
9	6659	8.2	8	0.98
10	6639	9	8.6	0.96
11	11741	6	5.9	0.98
12	6622	9.3	9	0.97
13	9756	7.5	5.8	0.77
14	7593	6.9	5.8	0.84
15	6483	5.3	4.5	0.85
16	7592	9.6	9	0.94
17	6331	7.7	6.5	0.84
18	9766	6.9	6.6	0.96
19	11646	6.7	6.5	0.97
20	6658	8.4	7.4	0.88
21	11645	8.6	7.9	0.92
22	12071	7.6	7	0.92
23	8881	8.7	6.2	0.71
24	6638	7.1	6.7	0.94
25	11740	7.2	7	0.97
26	6332	5.9	5.4	0.92
27	1	5.3	3.5	0.66
28	6	6.5	6	0.92
29	12094	6.9	6.8	0.99
30	6677	10.3	8.9	0.86
31	9335	8.1	8.1	1.00
32	7594	6.3	5.6	0.89
33	8471	7	4.8	0.69
34	6484	6.8	6.7	0.99
35	6326	9.2	9.2	1.00

Number	Catalogue	Thick	Thin	C.I.
36	6324	9.8	8.1	0.83
37	7994	6.1	5.6	0.92
38	6330	9.6	7.7	0.80
39	6680	7	7	1.00
40	11588	7.9	7.8	0.99
41	6684	11.2	10.8	0.96
42	9762	9.6	9.5	0.99
43	6327	6.5	6.2	0.95
44	7	5.6	5.5	0.98
45	6640	7.8	7.2	0.92
46	6329	8.9	7.2	0.81
47	6482	9.7	8.7	0.90
48	2	9.3	7	0.75
49	11551			
50	6485	9.8	8.5	0.87
51	6325	7.7	6.8	0.88
52	12853	6.5	6.2	0.95
53	12893	7.5	6	0.80
54	12870	8.6	7.1	0.83
55	12887	9.8	8.9	0.91
56	12889	4.9	4.4	0.90
57	12953	7.1	6.9	0.97
58	12954/12851	8.6	7.9	0.92
59	12907	5.6	5.3	0.95
60	12907/12888	9.4	9.2	0.98
61	12939	9.5	8.8	0.93
62	12790	6.9	6	0.87
63	12919	7	6.3	0.90
64	12938	8.4	7.8	0.93
65	12971	3.7	3.6	0.97
66	12920	6.2	6.1	0.98
67	12809	4.7	4	0.85
68	12852	9.5	9.2	0.97
69	12773	4.5	3.9	0.87
70	12859	4.5	4.2	0.93
71	12955	7.2	6.5	0.90
72	8779	8.5	8	0.94

Number	Catalogue	Thick	Thin	C.I.
73	7788	6.4	6.2	0.97
74	8960	5.7	5.3	0.93
75	10065	8	7.9	0.99
76	8958	6.9	6.3	0.91
77	10063	4.7	4.3	0.91
78	8956	10	9.9	0.99
79	8955	8.3	8.3	1.00
80	7790	8.3	7.9	0.95
81	7791	8.5	7.2	0.85
82	7787	9.9	8.5	0.86
83	7789	6.9	5.5	0.80
84	9150	11.4	10.8	0.95
85	9159	9.4	9.1	0.97
86	9159B			
87	5194	5.1	5	0.98
88	4410	7.6	5.1	0.67
89	4392/4219	4.8	3	0.63
90	7235	7.9	7.6	0.96
91	9989/9990	11	10.9	0.99
92	9887	11.9	11.7	0.98
93	6609	10.5	9.9	0.94
94	6540	15.2	13.6	0.89
95	9863	6.4	5.5	0.86
96	7155	7.8	7.2	0.92
97	8567			
98	11953B	9.9	9.3	0.94
99	11875			
100	8875	8.2	5.5	0.67
101	9750	7.8	7.8	1.00
102	11953a			
103	11953b			
104	12058a			
105	10041	14.1	11.6	0.82
106	11803			
107	10037			
108	9747	8.7	8.4	0.97
109	10086	11.1	10.1	0.91

Number	Catalogue	Thick	Thin	C.I.
110	12058A	9.6	8.5	0.89
111	8896	9.3	7.8	0.84
112	9668	7.6	6.7	0.88
113	9682			
114	11814			
115	12058A			
116	11936B	7.7	7.4	0.96
117	10021	10.2	9.7	0.95
118	11912	8.3	6.4	0.77
119	11953c			
120	8576	10.6	9.9	0.93
121	1-8748	9.9	8.4	0.85
122	11953A	8.1	7	0.86
123	11936A	8	6.8	0.85
124	12047			
125	12058A			
126	11953c	8	7.3	0.91
127	8531	11.7	10	0.85
128	12273			
129	9998	10.2	9.7	0.95
130	12058A			
131	12058A	9.6	9.4	0.98
132	11953B			
133	11953B			
134	11953B	9.6	9.2	0.96
135	12058A			
136	11953	6.1	5	0.82
137	12058A	9.2	8.8	0.96
138	12234	5.7	4.5	0.79
139	9017	7.7	7	0.91
141	8704	7.7	7.1	0.92
142	4941	7.3	7.1	0.97
143	4509	7	4.2	0.60
144	9888	9.1	8.9	0.98
145	9895			
146	9035	8.5	7.4	0.87
147	4508	8.1	8	0.99

Number	Catalogue	Thick	Thin	C.I.
148	8252	5.5	5.2	0.95
149	18251	4.5	3.3	0.73
150	11578	9	8	0.89
151	11574	5.2	5.1	0.98
152	11166	6.9	6.6	0.96
153	11601	8.2	6.4	0.78
154	5141	5.1	4.9	0.96
155	9793	6.9	6.4	0.93
156	5149			
157	5137	6.4	6.2	0.97
158	5456	4.9	4.8	0.98
159	9791	4.3	4.1	0.95
160	5452	8.2	7.3	0.89
161	9792	6.2	6.1	0.98
162	5143	5.7	5.6	0.98
163	5453			
164	5139	11.1	10.9	0.98
165	5454	11	10.8	0.98
166	5148	5.3	5.2	0.98
167	5453			
168	5147	8.4	8	0.95
169	5455	8.5	7	0.82
170	5144	7.1	6.5	0.92
171	5140	10.1	8.8	0.87
172	5457	7.8	6.4	0.82
173	5138	7	5.9	0.84
174	5146	5.1	4.3	0.84
175	5458	7	6.3	0.90
176	5461	6.3	5.7	0.90
177	5460	9.5	8.7	0.92
178	4584	6	5.7	0.95
179	7265	7.8	7.3	0.94
180	4382			
181	4843/7695	6.5	6.3	0.97
182	4604	3.3	2.5	0.76
183	13060	5.1	4.7	0.92
184	6466	8.7	8.6	0.99

Number	Catalogue	Thick	Thin	C.I.
185	9077	10.1	8.6	0.85
186	7732	5	4.6	0.92
187	9076	5.4	5.2	0.96
188	6862	8.7	8.3	0.95
189	8431	5	4.2	0.84
190	9110	7	6.9	0.99
191	4842	8	7.9	0.99
192	6861/6875	4.5	3.6	0.80
193	4587	9.6	8.5	0.89
194	4844			
195	10058	10	8.8	0.88
196	4573	7.1	7.1	1.00

Curvature Consistency Index: The Benson Site (BdGr-1) - Adult Pots

Number	Catalogue	Depth[1]	Depth[2]	C.C.I.
1	6641/6622	14.2	16	0.89
3	6678	5.5	5	0.91
4	6623/6648	6.8	5	0.74
5	11739	5	6.6	0.76
6	6342	11.6	15.5	0.75
6	9604			
7	8972	2.3	2.2	0.96
8	8880	1.7	1	0.59
9	6659			
10	6639			
11	11741	0.4	0.7	0.57
12	6622	2.5	2.8	0.89
13	9756	2.1	1.7	0.81
14	7592			
15	6331	1.7	1.9	0.89
16	9766	1.7	1.6	0.94
17	11646	2.8	3	0.93
18	6658			
19	7593			
20	6483	4.2	4.1	0.98
21	11645	1.1	1.1	1.00
22	12071	5.3	5	0.94
23	8881	1.5	1.9	0.79
24	11740	1.1	1.3	0.85
25	6332	2.1	1.6	0.76
26	1			
27	6	2.2	1.3	0.59
28	12094	2.2	1.6	0.73
29	6677	12.8	12.8	1.00
30	9335			
31	7594			
32	8471			
33	6484	4.2	4.3	0.98
34	6326	1.4	0.8	0.57
35	6324			

Number	Catalogue	Depth[1]	Depth[2]	C.C.I.
36	7994	0.8	0.7	0.87
37	6330			
38	6680			
39	11588	1	0.7	0.70
40	6654	8.4	7.9	0.94
41	9762			
42	6327	1.1	1.2	0.92
43	7	1.4	1.1	0.79
44	6640			
45	6329			
46	6482	2	1.6	0.80
47	2	2.6	2.5	0.96
48	11551			
49	6485	1.2	1.4	0.86
50	6325	2.6	2.2	0.85
51	12853	2.4	2.6	0.92
52	12893	15.8	14.9	0.94
53	12870	1.6	1.9	0.84
54	12887			
55	12889			
56	12953	0.6	0.5	0.83
57	12851	4.4	4.2	0.95
58	12907			
59	12907/12888			
60	12939	1.8	1.6	0.89
61	12790	4.9	3.9	0.80
62	12919	7	7.1	0.99
63	12938	4.5	3	0.67
64	12971			
65	12920	1	1.1	0.91
66	12809	4.3	3.3	0.77
67	12852			
68	12773			
69	12859	0.9	0.8	0.89
70	12955	1	1	1.00
71	8779	28.6	27.5	0.96
72	7788	1.7	1.8	0.94

Number	Catalogue	Depth[1]	Depth[2]	C.C.I.
73	8960			
74	10065			
75	8958	3.2	3.8	0.84
76	10063	15.5	13	0.84
77	8956	2.3	1.8	0.78
78	8955	2.9	2.5	0.86
79	7790	1	1.1	0.91
80	7791			
81	7787	4	4.6	0.87
82	7789	0.9	0.8	0.89
83	9150			
84	9159			
85	9159b	1	1	1.00
86	5194	1.3	1.2	0.92
87	4410	2.2	2.9	0.76
88	4219/4392	6.4	6.3	0.98
89	7235	4.5	5.2	0.87
90	9989/9990	3.3	3	0.91
91	9887	6.2	4.5	0.73
92	6609			
93	6540	2.4	2.6	0.92
94	9863	4.6	4.3	0.93
95	7155			
96	8567			
97	11953B			
98	11875	4.4	4.1	0.93
99	8875	1.4	1.1	0.79
100	9750			
101	11953			
102	11953			
103	12058A			
104	10041	2.2	2	0.91
105	11803			
106	10037			
107	9747			
108	10086	2.4	2	0.83
109	12058A			

Number	Catalogue	Depth[1]	Depth[2]	C.C.I.
110	8896	2.3	2	0.87
111	9668			
112	9682			
113	11814			
114	12058A			
115	11936B			
116	12058A			
117	11953c	1.2	1.1	0.92
118	8531	2.5	2.3	0.92
119	12273			
120	9998			
121	12058A	0.7	0.6	0.86
122	12058A			
123	11953B			
124	11953B			
125	11953B			
126	12058B			
127	11953			
128	12058A			
129	12234	36.7	37.5	0.98
130	9017			
131	8889			
132	4941	1.9	1.5	0.79
133	4509			
134	9888			
135	9895	1.5	1.4	0.93
136	9035			
137	4508	1.4	1.7	0.82
138	18251			
139	11578	4.1	3.8	0.93
140	11579			
141	11666			
142	11601	1.6	1.3	0.81
143	5141			
144	9793	4	4	1.00
145	5149	3.5	3.8	0.92
146	5137	1.9	2.5	0.76

Number	Catalogue	Depth[1]	Depth[2]	C.C.I.
147	5456	0.9	1	0.90
148	9791			
149	5452	6.1	5.7	0.93
150	9792	2.1	1.9	0.90
151	5143	2	1.1	0.55
152	5453	1.8	1.7	0.94
153	5139	5.5	5.2	0.95
154	5454	2.2	2.2	1.00
155	5148	2	2.4	0.83
156	5453			
157	5147	1.3	1.1	0.85
158	5455	0.9	0.7	0.78
159	5144	1.6	1.4	0.87
160	5140	1.6	1.6	1.00
161	5457			
162	5138	1.6	1.3	0.81
163	5146			
164	5458			
165	5461			
166	5460			
167	4584	16.7	14.8	0.89
168	7265	2	1.8	0.90
169	4382			
170	4843/7695	8.3	7.7	0.93
171	4604			
172	13060			
173	6466	1.3	1	0.77
174	9077			
175	7732			
176	9076			
177	6862			
178	8431			
179	9110			
180	4842			
181	6861/6875			
182	4587			
183	10058			

Number	Catalogue	Depth[1]	Depth[2]	C.C.I.
184	4844			
185	4573			

APPENDIX B

WIACEK SITES COMPARISONS

Crudity Index

Sites		0-0.20	0.21-0.40	0.41-0.60	0.61-0.80	0.81-1.0	Mean	STD
Wiacek (Lennox et al. 1986)	#				3	24	0.91	0.07
	%				11.0	89.0		
Wiacek (ASI 1994)	#				4	42	0.07	0.90
	%				9.0	91.0		

Curvature Consistency Index

Sites		0-0.20	0.21-0.40	0.41-0.60	0.61-0.80	0.81-1.0	Mean	STD
Wiacek (Lennox et al. 1986)	#			1	5	5	0.75	0.10
	%			9.0	45.0	45.0		
Wiacek (ASI 1994)	#		1	3	10	12	0.76	0.15
	%		4.0	12.0	38.0	46.0		

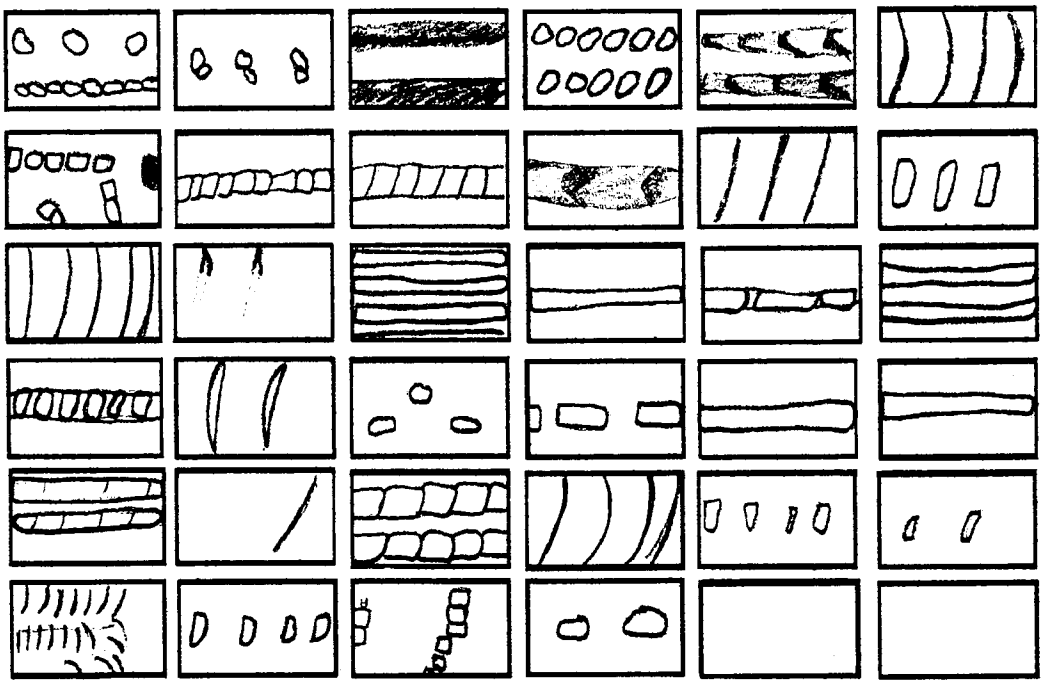
Motif Application Index

Sites		1-1.5	1.6-2.5	2.6-3
Wiacek (Lennox et al 1986)	#	3	9	1
	%	23.1	69.2	7.7
Wiacek (ASI 1994)	#	6	16	2
	%	25.0	66.7	8.3

APPENDIX C

MOTIF ELEMENT USE ON JUVENILE POTS

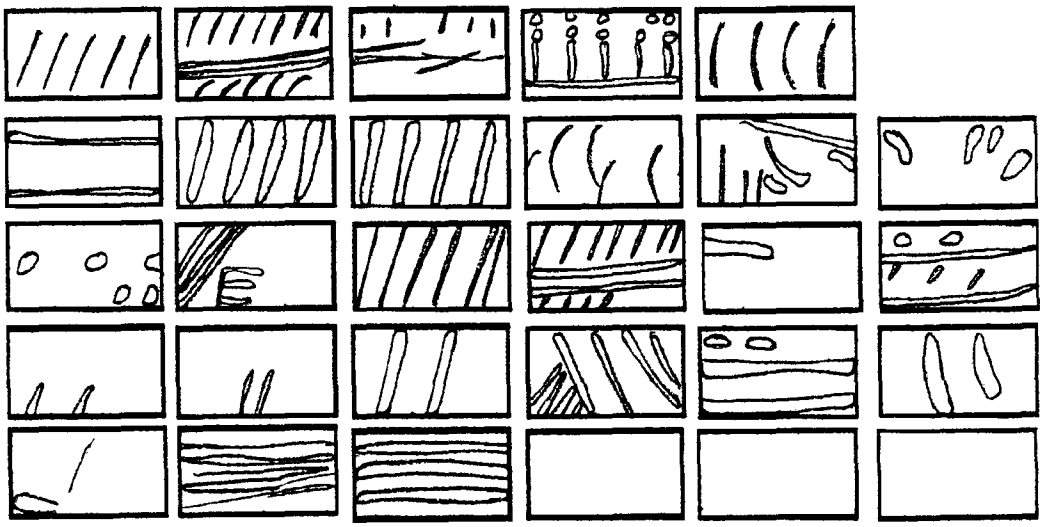
The Barrie Site
BcGw-18



The Barrie Site
BcGw-18

BcGw18:25 (collar)	BcGw-18:25 (lip)	BcGw-18: 381 (collar)	BcGw-18:388 (collar)	BcGw-18 Sq.320-110 (collar/body)	BcGw-18 Sq. 320-110 (lip)
BcGw-18 Sq. 285-133 (collar)	BcGw-18 Sq. 310-100 (collar)	BcGw-18 Sq. 310-100 (lip)	BcGw-18 Sq. 320-132 (collar)	BcGw-18 Sq. 305-133 (lip)	BcGw-18 Sq. 303-123 (collar)
BcGw-18 Sq. 335-120 (lip)	BcGw-18 Sq. 335-120 (collar)	BcGw-18 Sq. 344-114(b) (collar)	BcGw-18 Sq. 344-114(b) (lip)	BcGw-18 Sq. 344-114(l) (lip)	BcGw-18 Sq. 344-114(l) (collar)
BcGw-18 Sq. 305-124 (#1) (collar)	BcGw-18 Sq. 305-124 (#2) (lip)	BcGw-18 Sq. 305-124 (#3) (collar)	BcGw-18 Sq. 305-124 (#3) (lip)	BcGw-18 Sq. 305-124 (#4) (collar)	BcGw-18 Sq.305-124 (#5) (collar)
BcGw-18: 425 (collar - exterior)	BcGw-18:425 (collar - interior)	BcGw-18:202 (collar)	BcGw-18:390 (collar)	BcGw-18: 384 (collar)	BcGw-18: 384 (lip)
BcGw-18: 144 (collar)	BcGw18: 182 (lip)	BcGw-18 2-2-41 (collar/body)			

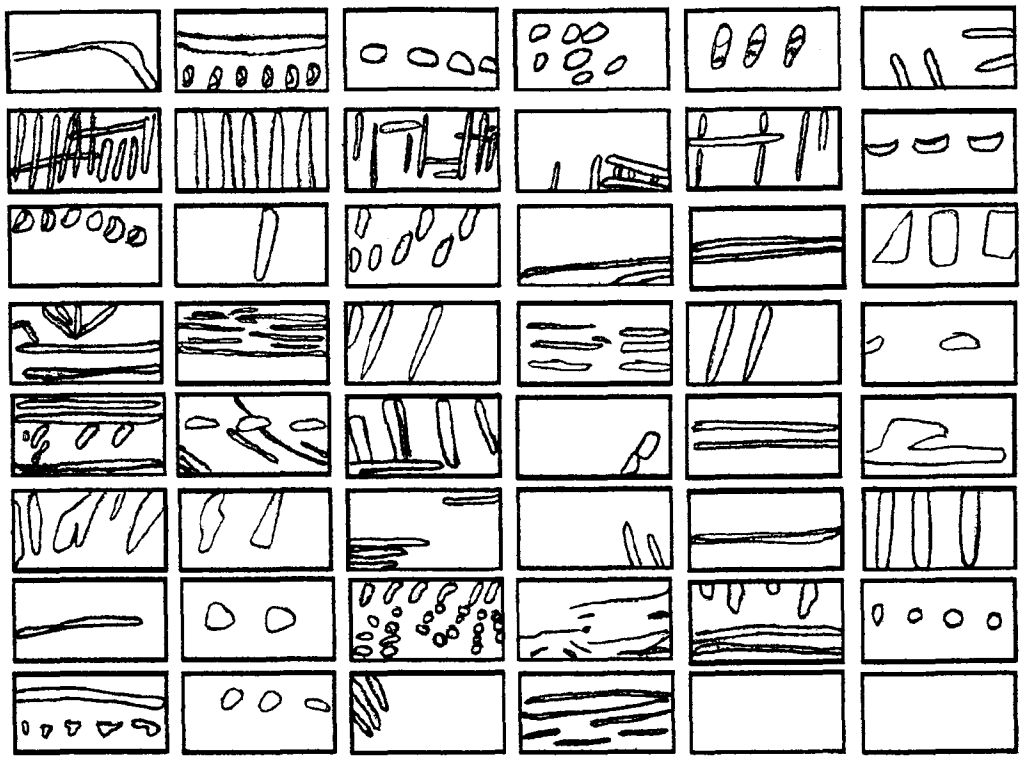
The Wiacek Site
BcGw-26
(Lennox et al. 1986)



The Wiacek Site
BcGw-26
(Lennox et al. 1986)

BcGw-26 F-31 (lip)	BcGw-26 F-31 (collar)	BcGw-26 S25W16 (collar)	BcGw-26 H1F8 (body)	BcGw-26 H2F60 (collar - interior)	
BcGw-26 H2F60 (body?/neck?)	BcGw-26 S26W15 (lip)	BcGw-26 S26W15 (collar)	BcGw-26 F26, 27 (collar)	BcGw-26 S27W13 (collar)	BcGw-26 S28W16 (collar)
BcGw-26 S28W17 (neck)	BcGw-26 H2F33 (collar)	BcGw-26 H2F35 (lip)	BcGw-26 H2F35 (collar)	BcGw-26 S25W17 (collar)	BcGw-26 S25W15 (collar)
BcGw-26 S25W15 (neck)	BcGw-26 24S3E-S (neck)	BcGw-26 30S17W (lip)	BcGw-26 30S17W (collar)	BcGw-26 28S15W (collar)	BcGw-26 H1F79 (neck/shoulder)
BcGw-26 H1F79 (shoulder)	BcGw-26 S26W13 (neck)	BcGw-26 F2 (neck)			

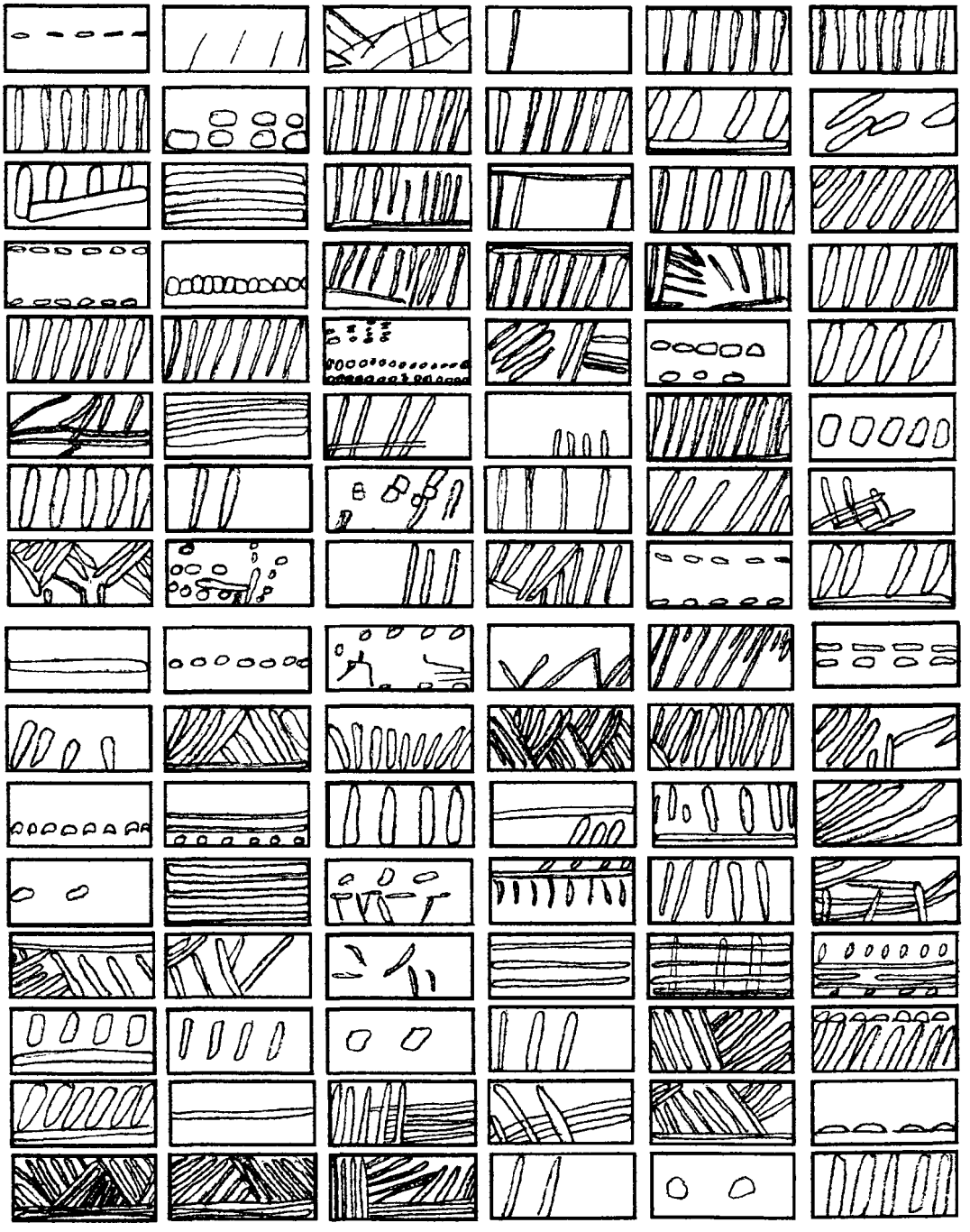
The Wiacek Site
BcGw-26
(ASI 1994)



The Wiacek Site
BcGw-26
(ASI 1994)

BcGw-26: 555 (collar)	BcGw-26: 611 (collar)	BcGw-26: 710 (lip)	BcGw-26: 710 (body)	BcGw-26: 721 (body)	BcGw-26: 724 (body)
BcGw-26: 930 (collar)	BcGw-26: 945 (collar)	BcGw-26: 956/1003 (collar)	BcGw-26:956/1003 (collar)	BcGw-26: 1004 (collar)	BcGw-26: 1222 (collar)
BcGw-26: 1247 (collar)	BcGw-26: 1519 (lip)	BcGw-26:2522 (collar)	BcGw-26: 2522 (neck)	BcGw-26: 2586 (neck)	BcGw-26: 2592 (collar)
BcGw-26: 2622 (collar)	BcGw-26: 249 (neck)	BcGw-26: 275 (neck)	BcGw-26: 381 (neck)	BcGw-26: 546 (collar)	BcGw-26: 546 (neck)
BcGw-26: 602 (neck)	BcGw-26: 673 (collar/body)	BcGw-26: 819 (collar)	BcGw-26: 819 (neck)	BcGw-26: 1214 (body)	BcGw-26: 1242 (body)
BcGw-26: 1243 (neck)	BcGw-26: 1245 (neck)	BcGw-26: 2251 (neck/body)	BcGw-26: 2282 (body)	BcGw-26: 2313 (body)	BcGw-26: 2354 (body)
BcGw-26: 2563 (neck)	BcGw-26: 2625 (shoulder)	BcGw-26: 547/610 (body)	BcGw-26: 2883 (body)	BcGw-26: 607 (neck)	BcGw-26: 1364 (neck)
BcGw-26: 1364 (shoulder)	BcGw-26: 2361 (shoulder)	BcGw-26: 2256 (neck)	BcGw-26: 2256 (body)		

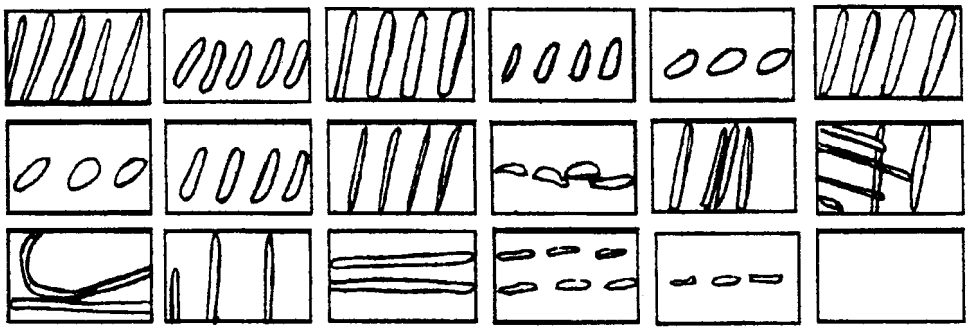
The Carson Site
BcGw-9



The Carson Site
BcGw-9

BcGw-9: Box 1 (shoulder)	BcGw-9: Box 1 (body)	BcGw-9: 2480 (collar)	BcGw-9: 9631 (collar/neck)	BcGw-9: 10122 (collar)	BcGw-9: 9626 (collar)
BcGw-9: 9727 (collar)	BcGw-9: 23328 (collar)	BcGw-9: 23696 (collar)	BcGw-9: 23696 (lip)	BcGw-9: 14686 (collar)	BcGw-9: 14686 (neck)
BcGw-9: 23636 (collar)	BcGw-9: 23696 (neck)	BcGw-9: 17043-48 (collar)	BcGw-9: 17043-48 (neck)	BcGw-9: 5559 (lip)	BcGw-9: 5559 (collar)
BcGw-9: 5559 (neck)	BcGw-9: 14958 (shoulder/body)	BcGw-9: 9086 (collar)	BcGw-9: 9086 (neck)	BcGw-9: 23838 (collar)	BcGw-9: 18741 (collar)
BcGw-9: 412 (collar/body/neck)	BcGw-9: 1521 (lip)	BcGw-9: 18421 (body)	BcGw-9: 15010 (collar)	BcGw-9: 11875 (shoulder/body)	BcGw-9: 3103 (collar)
BcGw-9: 15014 (collar)	BcGw-9: 23641 (body)	BcGw-9: 27018 (collar)	BcGw-9: 332 (neck)	BcGw-9: 15013 (collar)	BcGw-9: 7954 (shoulder)
BcGw-9: 7954 (lip)	BcGw-9: 20529	BcGw-9: 27908 (collar)	BcGw-9: 13487 (collar)	BcGw-9: 30439 (collar)	BcGw-9: 30439 (body)
BcGw-9: 180 (collar)	BcGw-9: 22651 (body)	BcGw-9: 644 (collar)	BcGw-9: 11114 (collar)	BcGw-9: 11114 (neck)	BcGw-9: 8743 (collar/neck)
BcGw-9: 158 (neck)	BcGw-9: 18721 (shoulder)	BcGw-9: 1522 (neck)	BcGw-9: 1742 (collar)	BcGw-9: 17975 (collar/neck/shoulder)	BcGw-9: 147 (shoulder)
BcGw-9: 19754 (shoulder/body)	BcGw-9: 16321 (collar)	BcGw-9: 16321 (neck)	BcGw-9: 7497 (collar)	BcGw-9: 7497 (neck)	BcGw-9: 6699 (collar)
BcGw-9: 13814 (shoulder)	BcGw-9: 4592 (shoulder)	BcGw-9: 392 (collar)	BcGw-9: H1 F168 (neck)	BcGw-9: 1507 (collar/neck)	BcGw-9: 15849 (neck/shoulder)
BcGw-9: 1318 (shoulder)	BcGw-9: 26449 (body)	BcGw-9: 15819 (shoulder)	BcGw-9: 1744 (shoulder/body)	BcGw-9: 333 (neck/body?)	BcGw-9: 6702 (collar/neck)
BcGw-9: 827 (shoulder)	BcGw-9: 22628 (collar)	BcGw-9: 1512 (body?)	BcGw-9: 10110 (collar)	BcGw-9: 10111 (collar)	BcGw-9: 10111 (collar)
BcGw-9: 10112 (collar)	BcGw-9: 10113 (collar)	BcGw-9: 10113 (lip)	BcGw-9: 367 (body)	BcGw-9: 22379 (collar)	22379 (neck)
BcGw-9: 406 (collar/neck)	BcGw-9: 14403 (collar)	BcGw-9: 11110 (collar)	BcGw-9: 11110 (neck)	BcGw-9: 422 (collar)	BcGw-9: 422 (neck)
BcGw-9: 828/2104 (collar)	BcGw-9: 2403 (collar)	BcGw-9: 2103 (collar)	BcGw-9: 5126 (shoulder)	BcGw-9: 5127 (body)	BcGw-9: 18456 (collar)

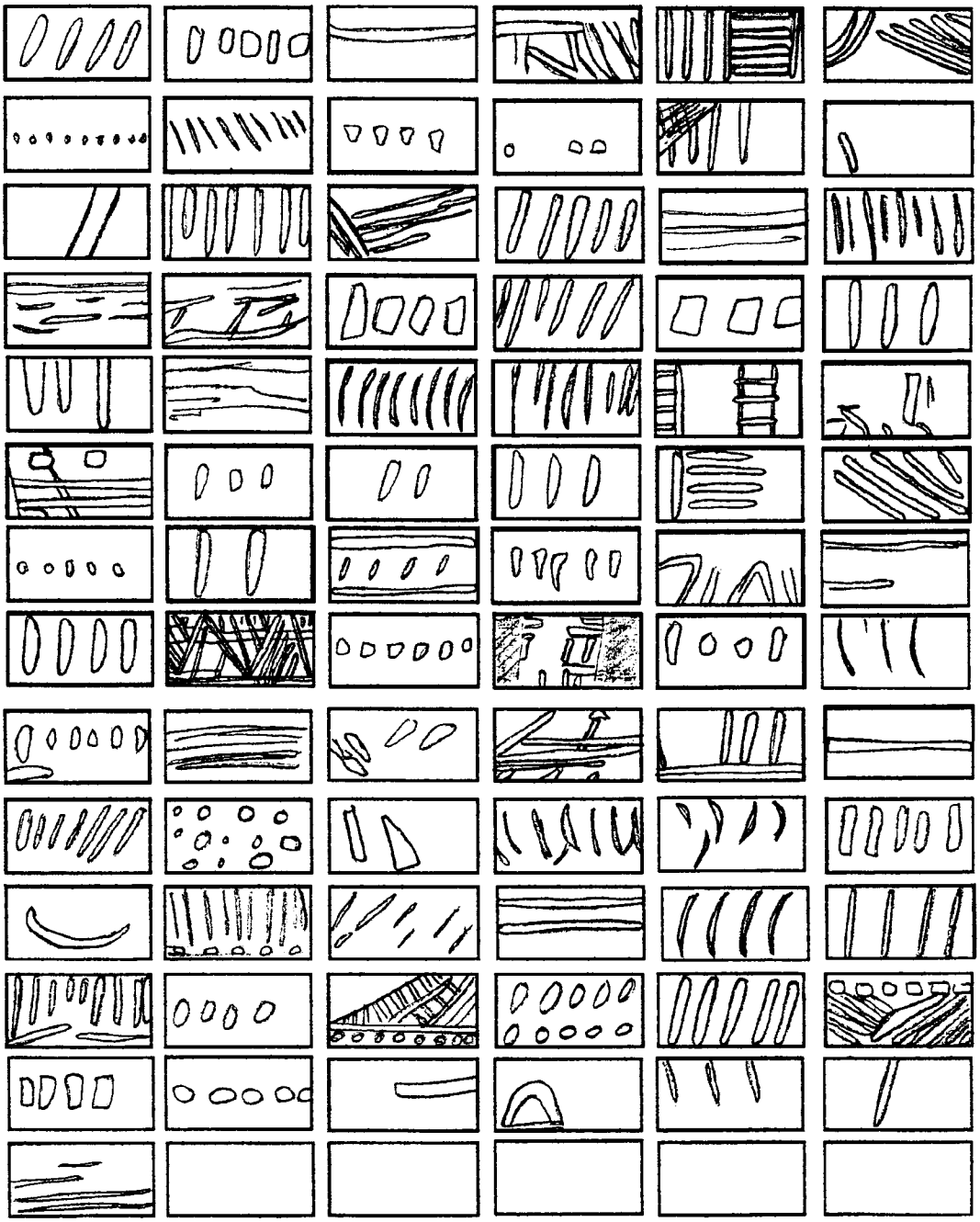
The Carson Site
BcGw-9



The Carson Site
BcGw-9

BcGw-9: 18457 (collar/neck)	BcGw-9: 21877 (shoulder)	BcGw-9: 20365 (collar)	BcGw-9: 20365 (lip)	BcGw-9: 20365 (shoulder)	BcGw-9: 20366 (collar)
BcGw-9: 20366 (shoulder)	BcGw-9: 20366 (lip)	BcGw-9: 2717 (collar)	BcGw-9: 421 (shoulder)	BcGw-9: 411 (collar)	BcGw-9: 408 (neck/collar)
BcGw-9: 319 (body?)	BcGw-9: 321 (body/neck?)	BcGw-9: 323 (body?)	BcGw-9: 15010 (shoulder)	BcGw-9: 10112 (lip)	

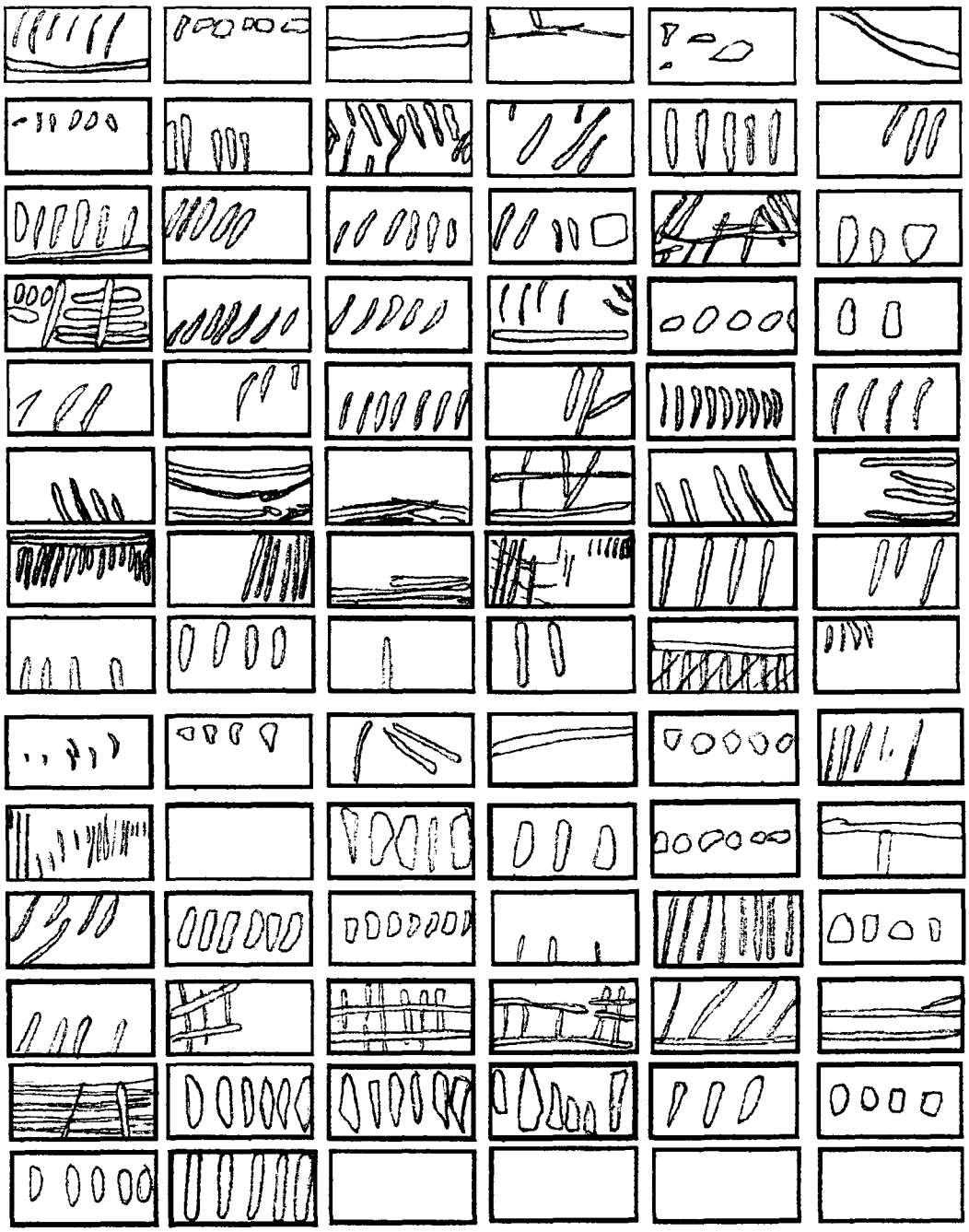
The Hubbert Site
BbGw-9



The Hubbert Site
BbGw-9

BbGw-9: 2881 (collar)	BbGw-9: 2881 (shoulder)	BbGw-9: 65 (collar)	BbGw-9: 65 (neck)	BbGw-9: 70 (collar)	BbGw-9: 70 (neck)
BbGw-9: 70 (shoulder)	BbGw-9: 225 (rim)	BbGw-9: 248 (collar)	BbGw-9: 289 (body)	BbGw-9: 295 (body)	BbGw-9: 295 (base)
BbGw-9: 448 (collar)	BbGw-9: 520 (collar)	BbGw-9: 654 (body)	BbGw-9: 751 (collar)	BbGw-9: 751 (neck)	BbGw-9: 931 (collar)
BbGw-9: 931 (neck)	BbGw-9: 931 (body)	BbGw-9: 974 (lip)	BbGw-9: 974 (collar)	BbGw-9: 1036 (lip)	BbGw-9: 1036 (collar)
BbGw-9: 1037 (collar)	BbGw-9: 1040 (body)	BbGw-9: 1051 (lip)	BbGw-9: 1051 (collar)	BbGw-9: 1055 (collar)	BbGw-9: 1056 (body/collar)
BbGw-9: 1244 (collar/body)	BbGw-9: 1245 (collar)	BbGw-9: 1246 (collar)	BbGw-9: 1361 (lip)	BbGw-9: 1361 (collar)	BbGw-9: 1361 (neck)
BbGw-9: 1361 (shoulder)	BbGw-9: 1369 (collar)	BbGw-9: 1370 (collar)	BbGw-9: 1432/1636 (collar)	BbGw-9: 1511 (body)	BbGw-9: 1514 (body)
BbGw-9: 1581 (lip)	BbGw-9: 1581 (collar)	BbGw-9: 1582 (collar)	BbGw-9: 1583 (collar)	BbGw-9: 1662 (collar)	BbGw-9: 1689 (collar)
BbGw-9: 1735 (collar)	BbGw-9: 1742 (neck)	BbGw-9: 1791 (neck)	BbGw-9: 2155 (collar/neck)	BbGw-9: 2156 (collar)	BbGw-9: 2241 (neck)
BbGw-9: 2242 (collar)	BbGw-9: 2336 (body)	BbGw-9: 2531 (lip)	BbGw-9: 2531 (collar)	BbGw-9: 2531 (interior)	BbGw-9: 2551 (collar)
BbGw-9: 2551 (neck)	BbGw-9: 2552 (collar)	BbGw-9: 2762 (collar)	BbGw-9: 2763 (collar)	BbGw-9: 2851 (lip)	BbGw-9: 2851 (collar)
BbGw-9: 2882 (collar)	BbGw-9: 3008 (collar)	BbGw-9: 3010 (collar)	BbGw-9: 3074 (collar)	BbGw-9: 3321 (collar)	BbGw-9: 3321 (shoulder)
BbGw-9: 3321 (body)	BbGw-9: 3322 (shoulder)	BbGw-9: 3351 (lip)	BbGw-9: 3351 (collar)	BbGw-9: 3732 (body)	BbGw-9: 3734 (collar)
BbGw-9: 4091 (neck)					

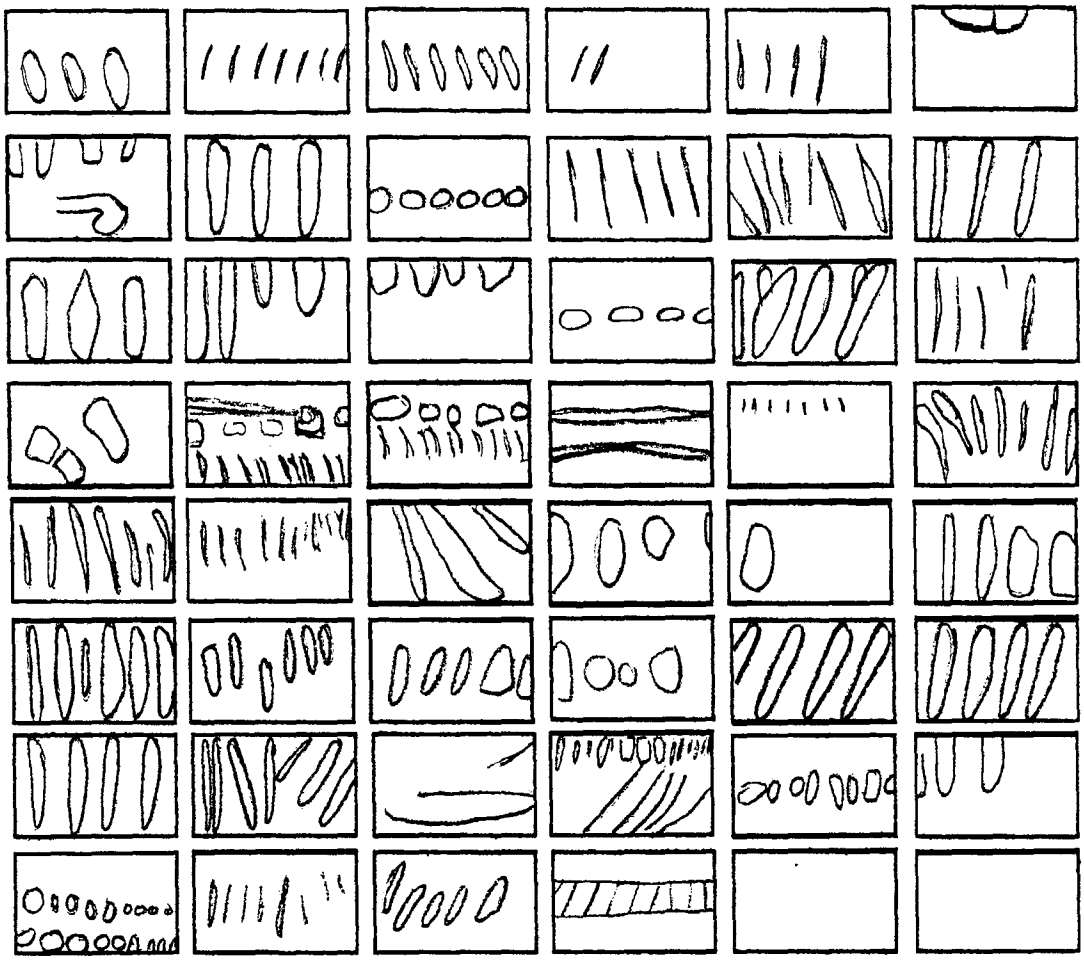
The Dougall Site
BdGu-2



The Dougall Site
BdGu-2

BdGu-2: 9a (collar/neck)	BdGu-2: 9b (neck)	BdGu-2: 9c (neck)	BdGu-2: 9d (neck)	BdGu-2: 9e (body)	BdGu-2: 9g (body)
BdGu-2: 9h (collar/neck)	BdGu-2: 9j (body)	BdGu-2: 47a (collar)	BdGu-2: 47b (body)	BdGu-2: 47d (lip)	BdGu-2: 47d (lip)
BdGu-2: 86b (lip)	BdGu-2: 86b (neck)	BdGu-2: 86c (lip)	BdGu-2: 86d (lip)	BdGu-2: 86d (collar)	BdGu-2: 86e (lip)
BdGu-2: 86f (collar)	BdGu-2: 86h (shoulder)	BdGu-2: 86i (shoulder)	BdGu-2: 86j (collar)	BdGu-2: 86k (collar)	BdGu-2: 86k (lip)
BdGu-2: 86m (body)	BdGu-2: 86n (collar)	BdGu-2: 86o (lip)	BdGu-2: 86o (collar)	BdGu-2: 86q (lip)	BdGu-2: 86q (collar)
BdGu-2: 86u (collar)	BdGu-2: 86v (body)	BdGu-2: 86w (neck)	BdGu-2: 86bb (collar)	BdGu-2: 86cc (collar)	BdGu-2: 86ee (body)
BdGu-2: 120a (collar)	BdGu-2: 120b (lip)	BdGu-2: 120b (collar)	BdGu-2: 153a (collar)	BdGu-2: 153/174 (collar)	BdGu-2: 153c (collar)
BdGu-2: 153e (collar)	BdGu-2: 153g (collar)	BdGu-2: 153h (collar)	BdGu-2: 153i (collar)	BdGu-2: 191e (collar)	BdGu-2: 191j (collar)
BdGu-2: 191j (body)	BdGu-2: 191k (collar)	BdGu-2: 191l (body)	BdGu-2: 191q (collar)	BdGu-2: 214a (collar)	BdGu-2: 214d (collar)
BdGu-2: 214e (collar)		BdGu-2: 214f (lip)	BdGu-2: 214h (lip)	BdGu-2: 214h (collar)	BdGu-2: 214 i (collar)
BdGu-2: 214k (body?)	BdGu-2: 235a (lip)	BdGu-2: 235a (collar)	BdGu-2: 235b (collar)	BdGu-2: 235c (neck)	BdGu-2: 235c (shoulder)
BdGu-2: 235c (body)	BdGu-2: 253a (neck)	BdGu-2: 253b (neck)	BdGu-2: 253c (neck)	BdGu-2: 253f (neck)	BdGu-2: 10a (collar)
BdGu-2: 49a (collar)	BdGu-2: 2/263 (collar)	BdGu-2: 40a (collar)	BdGu-2: 40b (collar)	BdGu-2: 40c (collar)	BdGu-2: 78a (lip)
BdGu-2: 78a (collar)	BdGu-2: 188a (collar)				

The Molson Site
BcGw-27



The Molson Site
BcGw-27

BcGw-27: 31E12S (collar)	BcGw-27: 4N57E (lip)	BcGw-27: 4N57E (collar)	BcGw-27: 0S43E (lip)	BcGw-27: 0S43E (collar)	BcGw-27: 01N49E (collar)
BcGw-27: 3N55E (collar/shoulder)	BcGw-27: 35S40E (lip)	BcGw-27: 35S40E (shoulder)	BcGw-27: H5F100 (lip)	BcGw-27: H5F100 (collar)	BcGw-27: H5F127 (lip)
BcGw-27: 20S29W (collar)	BcGw-27: H1F42 (collar)	BcGw-27: H1F42 (lip/interior)	BcGw-27: 61N30E (lip)	BcGw-27: 51N30E (collar)	BcGw-27: 18S29W (collar)
BcGw-27: 18S29W (shoulder)	BcGw-27: 19S29W (neck)	BcGw-27: 17S29W (collar)	BcGw-27: 17S29W (shoulder)	BcGw-27: 12S25W (collar)	BcGw-27: 11S24W (collar)
BcGw-27: 11S24W (collar)	BcGw-27: 17S30W (collar)	BcGw-27: 10S24W (collar)	BcGw-27: 41N27E (collar)	BcGw-27: 44N22E (lip)	BcGw-27: 44N21E (lip)
BcGw-27: 43N19E (lip)	BcGw-27: 42N22E (collar)	BcGw-27: 42N22E (lip)	BcGw-27: PM70H9 (shoulder)	BcGw-27: H9F19 (collar)	BcGw-27: 12S30W (lip)
BcGw-27: 17S30W (collar)	BcGw-27: 17S29W (collar)	BcGw-27: H1F42 (neck/collar)	BcGw-27: H1F2 (collar/neck/shoulder)	BcGw-27: H1F72A (lip)	BcGw-27: 10N0E (collar)
BcGw-27: 10N0E (shoulder)	BcGw-27: 8N2E (collar)	BcGw-27: 39N21E (collar)	BcGw-27: H7F25 (collar/neck)		

APPENDIX D

FORM FOR REFINEMENT OF CATEGORY OF JUVENILE POTS

CRUDITY INDEX

No.	Cat.	Thick	Thin	Crudity Index (Thin/Thick)	No.	Cat.	Thick	Thin	Crudity Index (Thin/Thick)

Curvature Consistency Index

No[0]	Cat.	Depth[1]	Depth[3]	Curvature Consistency Index

Motif Application Index

No.	Cat.	Impression Depth	Length of Motifs	Width of Motifs	Spacing of Motifs

Crude -- 1 Fair -- 2 Fine -- 3