
A Comparison of Maritime Archaic Indian and Intermediate Indian Site Distribution in Labrador

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Abstract

This paper is concerned with Maritime Archaic Indian and Intermediate Indian cultures in Labrador and the differences in site distribution patterns between these cultural periods. A brief summary of what is currently known about each culture is presented followed by an examination and comparison of site distribution. All known Maritime Archaic Indian and Intermediate Indian sites in Labrador are considered here. It is shown that over 91% of known Labrador Maritime Archaic Indian sites are located on the coast. In contrast, 56% of known Intermediate Indian sites in Labrador are found in the interior. These results support suggestions that the beginning of the Intermediate Indian period (approximately 3500 B. P.) was a time of change for Indian populations in Labrador and that the interior became much more important for Indian groups at that time (Fitzhugh 1972; Nagle 1978; Tuck n.d.). The possible meanings of these differences in site distribution patterns are discussed and suggestions for future research on this topic are given.

Cet article est concerné par les cultures indiennes archaïques maritimes et intermédiaires archaïques maritimes dans Labrador et les différences dans des modèles de distribution d'emplacement entre ces périodes culturelles. Un bref sommaire de ce qui est actuellement connu au sujet de chaque culture est présenté suivi d'un examen et d'une comparaison de distribution d'emplacement. Tous les emplacements indiens archaïques maritimes connus dans Labrador sont considérés ici. On lui montre que plus de 91% de Labrador connu des emplacements indiens archaïques maritimes sont situés sur la côte. En revanche, 56% d'emplacements indiens intermédiaires connus dans Labrador sont trouvés dans l'intérieur. Ces résultats appuient des suggestions ces le début de la période indienne intermédiaire (approximativement 3500 B. P.) était un moment de changement pour les populations indiennes de Labrador et cela l'intérieur est devenu beaucoup plus important pour les groupes indiens à ce moment-là (Fitzhugh 1972 ; Nagle 1978 ; Repli 1986). Les significations possibles de ces différences dans des modèles de distribution d'emplacement sont discutées et des suggestions pour la future recherche sur cette matière sont données.

Introduction

The Maritime Archaic Indian (MAI) cultural tradition in Labrador is associated with coastal sites while many archaeologists argue that the Intermediate Indian (II) period is marked by an increasing focus on the interior. These ideas are based on technology used by each culture, raw materials used for the manufacture of stone tools, as well as the locations of sites belonging to each culture. However, there has never been a detailed comparison of site distributions between each group. The objectives of this paper are to present a background on each of these cultures and to compare MAI and II site distribution in Labrador. Some of the implications of the observed differences in site distribution between these two periods will also be discussed. Figure 1 shows the places that are mentioned in the text.

A comparison of MAI and II site distribution in Labrador is very important for learning about each of these cultures. This also provides information about the period between approximately 3500 and 2000 B.P., which is one of the least known periods in the prehistory of the northeast, and which appears to have been a time of great changes. Some possible explanations for why these changes occurred at this time are also briefly discussed.

The Maritime Archaic Indian Culture in Labrador

The MAI culture is associated with a distinct complex of tools, which include stemmed points, which were often made with Ramah chert from northern Labrador, ground slate spears (or lances), harpoons, as well as woodworking tools like gouges, adzes, axes and celts. This culture is also associated with very large dwelling structures and complex mortuary practices. MAI technology, organic remains (such as sea mammal bones), as well as symbolic representations of animals found in burial contexts all attest to a maritime oriented way of life (Tuck 1975, 1976; Hood 1993).

William Strong was the first researcher to discover artefacts in Labrador that can be attributed to the MAI culture. He worked on the central coast, near Hopedale (Figure 1), in the late 1920s and collected many stone tools including ground stone gouges, adzes, celts as well as stemmed points which were made out of chipped stone. Strong realized that the artefacts he had recovered must have been very old. He described the people who had made these tools as

belonging to an “old stone culture”. Although Strong had no way of finding out exactly how long ago these tools had been made, he believed that they must have been used by people who were in Labrador before the Inuit and the Innu (Strong 1930; Hood 1993).

By the 1950s and 1960s the development of radiocarbon dating technology had made it possible to date organic material from archaeological sites to find out, with a fair degree of accuracy, how long ago a particular site or feature (and associated artefacts) had been used. Elmer Harp worked in southern Labrador (as well as on the Island of Newfoundland) during this time and he was the first to have organic material from MAI sites dated in this way (Harp 1963; Harp and Hughes 1968). Some of the sites Harp discovered in the Strait of Belle Isle region produced radiocarbon dates as early as 6000 B.P. (Harp 1963; Harp and Huges 1968). These dates provided evidence that Labrador had been occupied much earlier than previously realized; however, many people found these very old dates difficult to accept and argued that the charcoal which had been radiocarbon dated could have come from natural forest fires rather than from cultural activity (McGhee and Tuck 1975:11). Harp referred to the culture that produced this material as “Boreal Archaic” using the terminology of his time (Harp 1963; Harp and Hughes 1968).

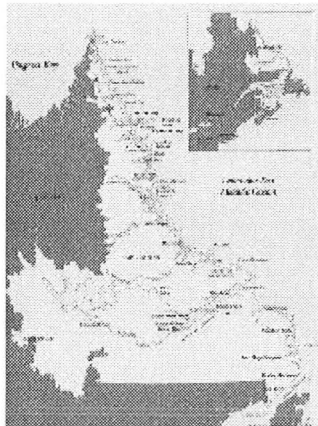


Figure 1: Map Showing the Location of Labrador (Oppersdorff 1991).

The first major archaeological projects in Labrador began in the late 1960s and early 1970s. In 1968, William Fitzhugh began working in Hamilton Inlet (Figure 1) in central Labrador (Fitzhugh 1972). At around the same time, Tuck began excavations at a MAI cemetery on the northern peninsula of the Island of Newfoundland. In 1973, Tuck and McGhee began working in the Strait of Belle Isle region in southern Labrador where Harp had previously discovered MAI sites, which had produced very early dates (McGhee and Tuck 1975).

In Groswater Bay, which is the coastal portion of Hamilton Inlet (Figure 1), Fitzhugh identified a number of MAI sites and excavated MAI habitation sites for the first time. Based on evidence from this area, Fitzhugh defined two MAI complexes and one phase: the Sandy Cove Complex (6000 – 3800 B.P.), the Black Island Complex (4200 B.P.) and the Rattlers Bight Phase (4000 – 3500 B.P.) It was also at this time that Fitzhugh first noted the use of Ramah chert from northern Labrador by MAI groups (Fitzhugh 1972). The fact that this material, which comes only from Ramah Bay (Figure 1), is found in sites dating to the MAI period all along the coast of Labrador, and as far away as New England and Maine is evidence for extensive trade networks. Fitzhugh argues that the Sandy Cove Complex is ancestral to the Rattlers Bight Phase but that the Black Island Complex represents a different Amerindian population that moved into the area from the south. He bases these arguments on the use of different raw materials for stone tools by Black Island Complex groups as well their use of different tools and tool styles (Fitzhugh 1975:117).

In southern Labrador, Tuck and McGhee investigated the sites that had been reported by Harp and they also discovered many more MAI sites in the area. They were also able to collect organic material from some of these sites for radiocarbon dates. Tuck and McGhee were able to show that there is no reason to doubt Harp's early radiocarbon dates and that MAI groups appear to have occupied southern Labrador by around 8000 years ago. It was at this time that Tuck and McGhee discovered a MAI burial mound at L'Anse Amour, which contained many grave goods and the remains of an adolescent who had been buried face down. The L'Anse Amour burial mound dates to between 7200 and 7500 B.P. and it is the oldest known burial of this type in the New World (McGhee and

Tuck 1975).

Archaeological research in Labrador continued throughout the 1970s. During that decade, many MAI sites were discovered on the central and northern Labrador coasts. Tuck worked in northern Labrador at Saglek Bay at this time, and Fitzhugh surveyed from the central coast to the Torngat Mountain region in northern Labrador with field crews from the Smithsonian Institution (Tuck 1975; Fitzhugh 1984; Fitzhugh et. al. 1979). It was at this time that the presence of MAI sites north of the tree line was noted. Trees currently grow as far north as Napaktok Bay in Labrador (Hood 1993:166; Fitzhugh 1978:92-93).

In his 1976 book, *Ancient People of Port au Choix*, Tuck suggested using the words "Maritime Archaic tradition" to refer to the culture that had created the material culture and used the sites discussed above. This book is concerned with the excavation of an Archaic cemetery on the northern peninsula of Newfoundland where the remains of more than one hundred individuals were recovered. In this book, Tuck argues that the designation Maritime Archaic tradition could be used to refer to Archaic groups recognized in the archaeological record from Labrador to the Gulf of Maine. Tuck saw many similarities in the Archaic sites throughout this large area, including coastally oriented sites, marine mammal hunting technology, and similar mortuary practices (Tuck 1976). Since then researchers have realized that there seem to have been regional differences between groups in different areas (Bourque 2001; Hood 1993; Spiess 1993; Fitzhugh 2002). In Labrador, archaeologists now refer to northern branch and southern branch MAI groups (Hood 1993). Southern branch groups occupied the Strait of Belle Isle region of Labrador (as well as the Island of Newfoundland), and MAI sites found north of Hamilton Inlet are seen as belonging to the northern branch. Northern and southern branch groups are associated with different stone tool styles as well as use of different raw materials for these tools (Hood 1993:166-167). Although there do appear to be regional differences between MAI groups, as Tuck (1976) explains, these groups had many things in common.

The remains of structures that are associated with the MAI culture were discovered in 1977 and 1978 at Aillik, near Makkovik in central Labrador, and at Nulliak Cove, which is near Hebron in northern Labrador. They were found by the Smithsonian Bryn Mawr

Archaeological Project, headed by William Fitzhugh (Fitzhugh et al. 1979; Fitzhugh 1981, 1984). A very large rectangular structure at Aillik has been interpreted as a longhouse and this site has been used to interpret similar features at other MAI sites in Labrador such as Nulliak Cove (Fitzhugh 1984, 2002). For this reason, the MAI culture in Labrador is also associated with the remains of extremely large structures that have been interpreted as dwellings (Hood 1993).

It is also important to note that during the late MAI period (around 4000 B.P.), Palaeo-Eskimo groups began moving into Labrador and into areas that MAI groups had had to themselves for thousands of years. In northern Labrador, and particularly on the central coast around Nain and Okak, there are many sites belonging to both of these very different peoples. The interrelationships between these culturally, as well as ethnically distinct populations are not understood – but this is a very important question for those interested in Labrador prehistory. The relationships between MAI and Palaeo-Eskimo groups are beyond the scope of this paper; however, one cannot discuss the MAI cultural tradition in Labrador without mentioning Palaeo-Eskimo populations moving into this land by around 4000 B.P. Some have argued that Palaeo-Eskimo groups had something to do with the MAI tradition appearing to come to an end in Labrador by around 3500 B.P. (Fitzhugh 2002).

MAI people appear to have been the first humans to occupy Labrador. Archaeological evidence suggests that people belonging to this culture were in Labrador by around 8000 B.P. and this cultural tradition appears to have persisted until around 3500 B.P. Although archaeologists recognize differences between northern branch and southern branch MAI groups, it is widely accepted that both branches were coastally oriented societies that shared many cultural similarities (Fitzhugh 1972, 1975, 1978, 1981, 1984, 1985, 2002; Tuck 1975, 1976, n.d.; McGhee and Tuck 1975; Madden 1976; Hood 1993; Speiss 1993).

The Intermediate Indian Period in Labrador

The period between approximately 3500 B.P. and 2000 B.P. in Labrador is currently referred to as the “Intermediate Period”, and this is one of the least known times in Labrador prehistory. Indian groups occupying Labrador during this time are referred to as “Intermediate Indians”. This is due to the fact that Fitzhugh divided

the prehistory of Labrador into Early, Intermediate, and Late periods (Fitzhugh 1973; Nagle 1978). Indian groups living in Labrador between approximately 3500 and 2000 B.P. are seen as intermediate between earlier MAI groups and later Recent Indian populations.

Intermediate period Indian sites were first discovered in Labrador in the Hamilton Inlet area by Fitzhugh during the late 1960s and in the Strait of Belle Isle region by Tuck and McGhee in the early 1970s (Fitzhugh 1972; McGhee and Tuck 1975). Later in the 1970s, more extensive work was done on Indian sites dating to this period in southern Labrador by Madden (1976) and on the central coast by Nagle (1978). More recent work on II sites has been done in Hamilton Inlet by Neilsen (2006).

In his 1972 monograph, Fitzhugh discusses archaeological evidence from Indian sites in Hamilton Inlet that date to the Intermediate period. Based on this evidence, Fitzhugh defined two components, three complexes, and one phase: the Little Lake component (3600 – 3200 B.P.), the Brinex complex (3200 – 3000 B.P.), the Charles complex (3000 – 2700 B.P.), the Road component (2700 – 2300 B.P.), the David Michelin complex (2300 – 1800 B.P.), and the North West River phase (2500-1400 B.P.) (Fitzhugh 1972). Fitzhugh explains that the Little Lake component was based on just one large stemmed bifacial point, made of quartzite (for which the exact context was not known) and a small collection of artefacts from one site (the Cookery site) in North West River (Figure 1). This collection includes a leaf-shaped biface, several biface fragments, a tongue-shaped knife, and several performs. He writes that this culture seemed different from other Intermediate period cultures in site elevation (the site was found on a higher and older terrace); in the types of raw materials used for tool manufacture, and the fact that there were unfamiliar types of tools present in the assemblage from the Cookery site (Fitzhugh 1972). Others have since argued that these artefacts are more similar to Archaic period artefacts than they are to Intermediate period material culture (Tuck n.d.; Neilsen 2006). Therefore it is questionable whether this component belongs in the Intermediate period at all.

The Brinex complex was defined based on evidence from four sites in Hamilton Inlet. Much of the archaeological material belonging to this complex was surface collected by a Mr. Charles who lived in the area so context was not always known. The main

tools from Brinex complex sites are bifacially worked knives and projectile points. Various scrapers as well as one drill have also been recovered. Different materials including chert from Seal Lake (Figure 1) deep in the interior, white and red quartzite, and quartz are used in tool making (Fitzhugh 1972).

Evidence for the economy of Brinex groups is based on site location and the ecology of these areas. Fitzhugh suggests a generalized hunting and fishing way of life and he speculates that they may have hunted caribou in winter and fished and hunted small game in summer on the shore of Lake Melville as well as on the coast. He argues that the lack of Ramah Chert in Brinex assemblages suggests that these groups did not use the coast very intensively (1972).

Fitzhugh defined the Charles complex based on five sites. No red ochre was found in these sites in contrast to the Brinex complex sites. Charles complex groups made both bifacial as well as unifacial tools which were mainly made out of cherts but banded lavas were also utilized. The main tools recovered from these sites are lanceolate bifacial tool blanks, large bifacially manufactured knives, as well as unifacial scrapers and flake tools. The economy of Charles complex groups appears to have been similar to that of Brinex groups. They seem to have had a generalized hunting and fishing way of life that included hunting and fishing in the interior, perhaps in winter, and summers may have been spent on the coast or on Lake Melville. A focus on the interior seems to be indicated by the almost exclusive use of cherts that are believed to be from the Seal Lake area (Fitzhugh 1972).

The Road component is based on evidence from a single site at North West River in Hamilton Inlet – the Road 2 site. There are some differences between this component and the earlier Brinex and Charles complexes. Artefacts from the Road 2 site are smaller than those from the previously discussed complexes and seem to have been very carefully made. Scrapers are made from triangular chert flakes that were radially removed from chert cores. Materials used in tool making include cherts, fine grained volcanic stone, quartz, quartzites, as well as Ramah chert. The presence of Ramah Chert at this site suggests contact with the coast. There is no direct evidence for the economy of the people who had used this site and since this component is based on only one site it is very difficult to say much

about settlement and subsistence patterns. Based on the location of the site, Fitzhugh suggests a similar economic as well as settlement and subsistence pattern to Brinex and Charles groups with increased use of, or contact with the coast, based on the presence of Ramah Chert (1972).

The David Michelin Complex is based on evidence from two sites in Hamilton Inlet – the David Michelin site and the Hound Pond 1 site. Artefacts recovered from these sites include large bifacial knives, stemmed points, as well as a number of utilized flakes and scrapers. Fitzhugh suggests that this complex also had similar settlement and subsistence patterns to Brinex and Charles complex groups. This includes use of rivers as well as the coast in summer for fishing, birding, and small game hunting. The winter months, he argues, were probably spent on the interior where caribou would have been hunted. Most artefacts from these sites were made of interior Seal Lake cherts, but small amounts of Ramah chert were also present. Fitzhugh suggests that David Michelin Complex groups may have also hunted seals on the coast in summer (1972).

The North West River phase was defined based on data collected from eight sites in Hamilton Inlet, the most important of which is the Sid Blake site in North West River (Figure 1). Four more of these sites are also located in North West River, and three others were identified on the coast in Groswater Bay. Stone tools collected from these sites include stemmed bifaces, flake tools, asymmetric bifaces, and core scrapers. Fitzhugh (1972) refers to this technology as being very simple and argues that North West River phase groups must have made many tools out of bone that did not survive. The vast majority of tools recovered were made out of local quartzite but some other materials (quartz, red quartzite, banded lava, and Ramah chert) were present. It appears that these groups made use of both the coast as well as the interior. Evidence suggests that interior hunting took place in winter, and that fishing was the main activity during the summer months (Fitzhugh 1972; Neilsen 2006).

The picture presented by Fitzhugh (1972) of this period is quite complicated. He suggests that the Intermediate period was a time of great cultural diversity arguing that Indian groups from the interior were moving towards the coast of Labrador. He argues that this was a time of change and that groups were moving into Labrador from places like Quebec, Ontario, or from parts of America such as Maine

or New England. He suggests that there would have been repeated population replacements and extinctions in this area during this period (Fitzhugh 1972).

Since this initial work by Fitzhugh (1972), researchers have argued that Brinex and Charles complex groups actually belonged to the same culture that changed over time (Nagle 1978; Neilsen 2006). Nagle (1978), who examined 14 Intermediate period Indian sites on the central coast between Cape Harrison and Hebron, argues that the “Saunders complex” can be used when referring to either Brinex complex groups or Charles complex groups on the central coast. Neilsen (2006), who has recently excavated II sites in Hamilton Inlet, near Goose Bay, has argued that Nagle’s (1978) terminology should also be used in Hamilton Inlet as well (Neilsen 2006). Therefore, it now seems that the terms “Brinex complex” and “Charles complex” can be replaced by “Saunders complex” which simplifies things a little. Neilsen (2006) has also argued that the Road component can be included with the Charles complex since the Road 2 site is very close to a major Charles complex site and the Road 2 site was heavily disturbed by a bulldozer. It is possible that the material found at the Road 2 site was moved by the bulldozer from the nearby Charles complex site. Neilsen also found Road component type material culture in a Charles complex site that he excavated in Hamilton Inlet (2006).

Tuck and McGhee also identified sites dating to the Intermediate Period on the south coast of Labrador during the early 1970s (McGhee and Tuck 1975). Marcie M. Madden later excavated two of the sites in the Strait of Belle Isle region, one of which had originally been found by Harp, and the other had been discovered by Tuck and McGhee (McGhee and Tuck 1975; Madden 1976). At these two sites, the Black Rock Brook site and the Iceberg site, Madden found evidence for at least ten distinct cultural components which produced radiocarbon dates from around 3500 B.P. to 2000 B.P. – the entire II period. She refers to these as “Late Archaic” sites (Madden 1976).

Based on the evidence from the two sites described above, Madden suggests cultural continuity in Labrador from approximately 8000 years ago up to the present (1976). Madden explains that Tuck and McGhee had previously argued for cultural continuity in southern Labrador from approximately 8000 – 4500 B.P. based on the

evolution of stone point style in the area (McGhee and Tuck 1975). She convincingly argues that this long tradition continued into the historic period (and up to the present) based on her perception that the new stone point styles that are observed in this area appear to have developed from the styles that had previously been used in the same area. Madden also argues that MAI and II groups had similar settlement patterns and economic adaptations (1976).

Madden also notes that the raw materials used in the manufacture of Intermediate period stone tools change through time. During the early part of the Intermediate period, a coarse-grained chert is used, which is described as being “patinated” or “pitted” and being brown to white in color. Later on in the Intermediate period, Indian groups begin to use more fine-grained cherts. After approximately 2900 B.P., II groups in Labrador mainly use Ramah chert from Ramah Bay in northern Labrador for chipped stone tools (Madden 1976).

The only features that have been found in II sites in Labrador have been hearth features. Some sites on the central coast had as many as thirty hearth features (Nagle 1978). Some of the hearths found on the south coast of Labrador which date to the II period were quite large; the largest being 1-1.5 meters wide and about 4 meters long (Madden 1976). No II period features have yet been interpreted as dwellings.

In an unpublished draft manuscript, Tuck (n.d.) summarizes most of what is known about the Intermediate period in Labrador. He explains how Fitzhugh and Nagle both argue that the interior became much more important to Indian groups during this period than it had been previously. This is based on the fact that so many II sites had been found in the interior in Hamilton Inlet, and also because chert from the Seal Lake area (which is even further inland than the sites just mentioned) had been extensively used by II groups (Tuck n.d.; Fitzhugh 1972, 2002; Nagle 1978).

Another important aspect of this period, once again, has to do with Palaeo-Eskimo groups. Tuck (n.d.) explains that evidence suggests that II groups occupied parts of the Labrador coast at least as far north as Okak (in fact II sites have since been found in northern Labrador as well). It has been suggested that Saunders complex groups might have displaced Pre-Dorset groups on the central coast (Fitzhugh 2002). After approximately 2700 B.P., however, there is no longer any indication that II people were occupying this area. At

the same time there is a great deal of evidence for Groswater Paleo-Eskimo groups on the central coast. It has also been suggested that Groswater peoples may have displaced Saunders complex groups in this area (Fitzhugh 2002). It is interesting that after approximately 2900 B.P., II groups to the south began to rely more and more on Ramah chert from northern Labrador for stone tool manufacture. This could be seen as evidence that II groups were regularly traveling to Ramah Bay to procure this material, or that they were trading with Palaeo-Eskimo peoples (Tuck n.d.).

The Intermediate period in Labrador seems to have been a time of great change. Northern branch MAI groups disappear from the archaeological record after around 3500 B.P. and in southern Labrador there are fewer Indian sites on the coast during this period than during MAI times and these sites contain fewer artefacts. Madden (1976), for example, found only 260 artefacts in the two sites she excavated which had 10 discrete II components dating from around 3500 – 2000 B.P. The ground-stone tools that were so important to MAI groups appear to no longer have been used during this period. The elaborate mortuary ceremonialism which is associated with the MAI period also seems to be absent after around 3500 B.P. (Tuck n.d.). Once again, researchers have argued that the interior becomes much more important at this time (Fitzhugh 1972; Nagle 1978). Nagle (1978) explains how east to west and west to east movement became important for Indian groups in Labrador during the Intermediate period. This seems different from MAI movement, which appears to have been mainly from south to north and north to south (Nagle 1978). It has also been suggested that this may have been a time of cultural turmoil for Indian groups in Labrador (Tuck n.d.). It is not understood why such great changes seem to have occurred after 3500 B.P., although it may have been a time when the environment was changing and when new populations were moving into this region (Tuck n.d.).

The Distribution of Maritime Archaic and Intermediate Indian Sites in Labrador

In order to examine changes between the MAI and II periods in Labrador, I have looked at the distribution of sites belonging to each culture. These types of studies have been done on the Island of Newfoundland by researchers such as Pastore (1986), Schwarz

(1994), Bell and Renouf (2003), and Renouf and Bell (in press). Pastore (1986) was the first to compare the places where people belonging to different cultures chose to live in Newfoundland. Schwarz (1994) later looked more closely at the differences between Recent Indian and Palaeo-Eskimo settlement and subsistence based on site distribution patterns. Schwarz was able to consider more sites in his study (because more sites had been identified by that time) and he also used statistical analysis to show that although Pastore's results were not statistically significant, when interior sites were considered as well the results showed very significant differences in Palaeo-Eskimo and Recent Indian settlement patterns (Schwarz 1994:64-68). Renouf and Bell (in press; Bell and Renouf 2003) look at MAI site distribution on the Island of Newfoundland with regards to relative sea levels in order to develop a model for predicting the locations of MAI sites (in press; Bell and Renouf 2003).

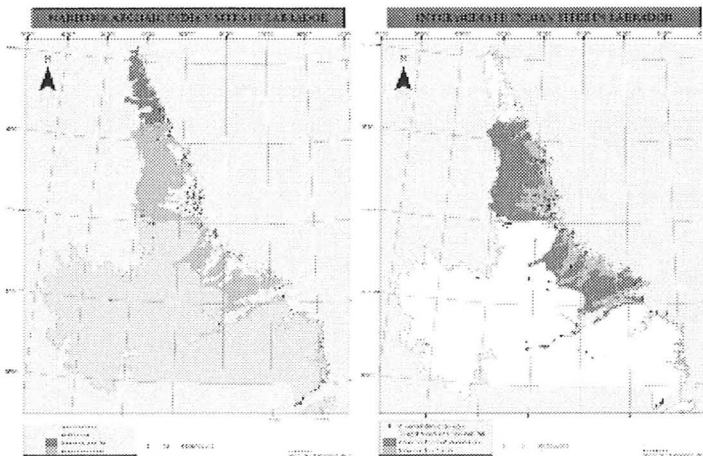


Figure 2: Maritime Archaic Indian Site Distribution (Hull 2006a)

Figure 3: Intermediate Indian Site Distribution in Labrador (Hull 2006b)

For this project, I have looked at all the known MAI sites and all the known II sites in Labrador and compared the number of sites found on the coast to the number of sites found in the interior for

each culture. I have followed Schwarz's example and used statistics to show the significance of the results I am presenting (1994). This type of study has not previously been done with MAI and II sites in Labrador.

Figure 2 shows the locations of all the known MAI sites in Labrador and Figure 3 shows all the known II sites in Labrador. Figure 4 shows the distribution of sites belonging to both of these cultures. In order to place sites belonging to each culture into each category (coastal versus interior), I have used a macro-scale approach which involved going through all the sites belonging to these cultures which are listed in the Provincial Archaeology Office (PAO) (Department of Tourism and Recreation) database and using the index sheet for the National Topographic System Maps of Canada which shows 1:50,000 scale maps of Labrador. The map number for each site is listed in the PAO database and this was used along with other information from PAO site record forms to place each site into one of the two categories (coastal or interior) (Figure 5). Sites located approximately 30 km or more from the coast were considered to be in the interior (Schwarz 1994).

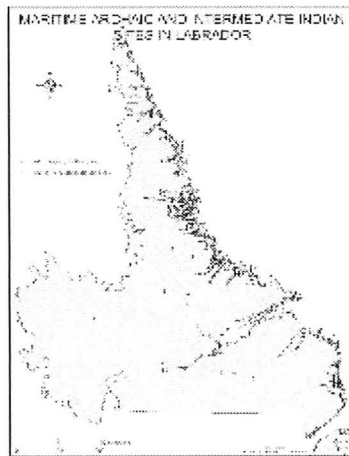


Figure 4: Showing the Locations of all Known Maritime Archaic Indian and Intermediate Indian Sites in Labrador (Hull 2006c)

Four hundred and sixty-two (91%) of all known MAI sites in Labrador are located on the coast, while forty-four (9%) are found in the interior. There are currently 506 known MAI sites in Labrador. In contrast to the MAI pattern of site distribution, only eighty-one (44%) of the one hundred and eighty-three known II sites are on the coast, while one hundred and two (56%) II sites are located in the interior. These results are summarized in Figure 5.

Culture	Coast	Interior
MAI	462 (91%)	44 (9%)
II	81 (44 %)	102 (56%)
DF = 1	$\chi^2 = 177.920$	$\hat{\alpha} = 0.0001$

Figure 5: Maritime Archaic Indian and Intermediate Indian Site Distributions in Labrador

A chi-square test has been used here to show that there are extremely significant differences in site distribution between the MAI and the II periods in Labrador (Figure 5). Statistically, the possibility that these differences are the result of random chance is less than 0.0001 %.

Discussion

The information presented here strongly supports the hypothesis that the II period was a time of great settlement change in Labrador. More than 90% of all known MAI sites are located on the coast while 56% of known II sites are in the interior. These results also strongly support the argument that the interior became much more important at this time. Why these changes occurred beginning at around 3500 B.P. is a very important question that researchers can currently only speculate about. Environmental assessments by

Fitzhugh and Lamb (1985:366, 367) suggest that there were no major changes in marine or terrestrial environments at this time on the central and northern coastal areas of Labrador. It is possible, however, that environmental changes could have occurred in the interior that might be difficult to detect through studies of vegetation (Tuck n.d.). It is possible that caribou populations increased around this time. It is also possible that even if there were no major environmental changes at this time, small scale fluctuations in temperatures could have made marine resources less predictable than they had been in the past (Renouf 1993).

Another possible explanation for the observed changes in MAI and II site distributions is cultural. New peoples such as Palaeo-Eskimo groups, and possibly other Indian populations from west and south of Labrador were moving into the area at this time. It also seems likely that it was during the II period that much of the interior would have been free from glacial ice and therefore accessible to humans for the first time (JWEL 2000:i).

I must admit that I was surprised by the number of II sites known in Labrador. The literature often makes it seem like this was a time when Indian groups were occupying Labrador much less intensively than they had been during the MAI period. However, the MAI period is approximately three times as long as the II period but there are less than three times as many known MAI sites in Labrador. The fact that more II sites have been found in the interior than on the coast, and so little work has been done inland suggests that in the future the proportion of known II sites will be even higher.

In any case, it appears that II groups and MAI groups had very different economies. MAI groups seem to have been very focused on marine resources whereas II groups appear to have used both coastal the interior resources. Archaeological evidence suggests that MAI technology and settlement patterns were very specialized while II groups appear to have been more generalized in their technology and way of life (Tuck n.d.; Fitzhugh 1972; Nagle 1978; Hood 1993; Neilsen 2006).

It would be interesting to see further comparisons of MAI and II site distributions from smaller-scale perspectives. Researchers could focus on particular parts of Labrador and perhaps present an accurate picture of the use of inner versus outer coastal, and near coastal interior versus deep interior areas by MAI and II peoples. It would

also be interesting to see how sites are related to geographical features such as rivers. There is much more work to be done in order to increase the current understanding of how things changed in Labrador around 3500 B.P.

Conclusion

This paper has been a discussion of MAI and II site distribution in Labrador. A brief summary of each of these cultural periods has been presented to provide a background for the information on site distribution that is given here. Some ideas for future research on this subject have also been suggested. In addition, some of the implications of the differences in site distribution patterns during each period have been touched upon, and some possible explanations for why these changes occurred have also been mentioned.

This comparison of MAI and II site distribution in Labrador provides evidence that supports the idea that the Labrador interior became much more important to Indian groups beginning around 3500 B.P. (Fitzhugh 1972; Nagle 1978). This information also supports the hypothesis that the II period was a time of change for Indian populations in Labrador (Fitzhugh 1972; Nagle 1978; Tuck n.d.). The number of sites belonging to MAI groups and II groups which were examined in this paper suggests that Labrador as a whole was occupied with a similar intensity during the II period as before. However, it has been shown here that contrary to Madden's (1976) statements that MAI and II settlement and economy was the same, it in fact was not. MAI and II groups appear to have had very different adaptations to Labrador. Unfortunately, archaeologists can still only speculate about why these changes occurred at that time.

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