



# ARCH NOTES

Newsletter of

The Ontario Archaeological Society (Inc.)

May 1973

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## executive 1973

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## announcements

### MONTHLY MEETING: TORONTO

This month's general meeting will be held in room 561A, Sidney Smith Hall, 100 St. George Street (between Bloor and College), on Wednesday, May 16th, 1973 at 8:00 p.m. The speaker will be Professor J. Norman Emerson. The topic for the evening will be "Intuitive Archaeology: A Psychic Approach".

### OTTAWA CHAPTER

Their April meeting was held on April 18th, 1973 and at that time the speaker was Mr. Dean Knight.

Their next meeting is a very important one for the whole society. It will be held on Monday, May 14th, 1973 in the Conference Room of the Canadian War Museum, located at 330 Sussex Drive, at 8:00 p.m.

First on the agenda will be the presentation of a charter to the chapter by our President, Dr. Howard Savage. Secondly, Dr. Savage will address the meeting on the subject of "Faunal Analysis". Thirdly, the election of the officers of the Ottawa chapter will take place. Any of the members who will be in the Ottawa area at this time would be welcome to join in on this historic occasion.

### A NOTE FROM THE ARCH NOTES EDITOR

The Pottery Processing and Analysis Lab, which finished last month, had 41 members attend at one time or another, 30 of whom will receive a certificate for satisfactory attendance and participation ( a minimum of 6 sessions). Of these, we had 11 members who did not miss any sessions. Our thanks to Mr. Peter Ramsden for his time and effort as instructor. It is hoped that there will be more Lab sessions in the not too distant future on other topics such as Lithics, Faunal Analysis, or Settlement Patterns. If you are interested in learning about, or helping to teach, some of these topics or other areas of archaeology, write to the Editor, Arch-Notes (address below), and I will bring it to the attention of the executive.

### E.S.A.F.

Responses to the E.S.A.F. publication are slow. The deadline is July 1st, 1973. Make cheques or money orders payable to the Ontario Archaeological Society and mail to:

John Reid, 66 Roe Avenue, Toronto, Ontario, M5M 2H7.

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I wish to thank Mr. Jim Burns and Mr. David Arthurs for the following articles. It is much appreciated that they would take the time to prepare and type their papers. Also, I would like to thank Miss Pat Belier for her typing assistance.

The Editor

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## reports

### THE DOG WHO COULDN'T BE

The analysis of archaeological animal bone has been carried out in very irregular fashion for a number of years but during, say, the last decade archaeologists have become aware of the amazing amount of information that can be gained from more thorough examination of faunal remains. Perhaps the most important aspect of such work is the elaboration of the subsistence base of aboriginal settlements; fishing encampments possess very different characteristics from year-round village sites. Indeed, correlation of the types of animals and birds with their behaviour helps to suggest seasons of occupation. Butchering and cooking practices may also be explained by close study of the physical conditions of the bone. Disturbances of the soil may be indicated by the occurrence of burrowing animals and of domestic animal bone.

Apart from the data gathered for archaeological interpretation, there is much to be gained from the standpoint of the zoologist. Many animals and birds do not inhabit areas now where once they were plentiful. The reverse may also be true; consider here the effects of humanly-imposed restrictions and introductions. All of these aspects of zoology have been (and still are) aided by the work of bone specialists entrusted with archaeological samples.

Occasionally, bones are recovered which are abnormally formed or pathological; bones are affected by a variety of diseases, although often the diagnosis is non-specific since symptoms of the disease in the live animal are more restrictive. So, the occurrence of a severely diseased set of dog bones from the Cleveland Site (AhHb-7) just northeast of Brantford, Ontario was cause for research into the nature of the disease. Perhaps it was a rare one whose history might be augmented by information recovered on this dog.

The Cleveland Site is a Neutral village that has been radio-carbon dated at A.D. 1540±90 (W.C. Noble, pers. comm.). The bone collections from the site during the 1971 field season consisted of about 5600 portions including about 400 that were assigned to the genus of dogs and wolves - Canis. From their size and relative completeness it was felt that at least 3 individual dogs were represented by 3 bundles.

The sick dog was excavated from a midden square (as were the others) and was reported in the field notes of the day as follows: "...articulated, diseased dog enmeshed within pot..." (Noble, pers. comm.). The circumstances of the animal's deposition are under study but the present consideration is the nature of the illness.

THE DOG - continued

Consultation with a veterinarian, Dr. George Peck of Oakville, led immediately to the acquisition of a set of X-rays which would show whether the knobby projections on the bones of the toes and feet involved the full thickness of the bony elements or whether they were surface growths; the latter proved to be true. Preliminary diagnosis: HYPER-PULMONARY OSTEOARTHROPATHY, a respiratory disease which has marked effect on extremity bones. The bones of the feet were all abnormal, with the degree of involvement becoming less with distance from the toes. The thigh bones and upper forelimbs were almost completely unaffected. It was easy to see that movement from the "wrist" and "ankle" down would have been painful, if not altogether impossible!

A trip to the Ontario Veterinary College in Guelph confirmed the diagnosis. With reference to X-rays of known cases of osteoarthropathy and to museum specimens at the College, Dr. Thomas Hurland, Dean, was convinced that we had the right culprit. He further opined that the illness was well-advanced and concurred that walking would have been very difficult. Being a terminal illness, the osteoarthropathy may have been the cause of death.

What, then, is the significance of this find? Why bother to report it? The answer is straight forward. The disease is alleged to be rare; it is known to affect dogs, sheep, deer, horses, lions, and even humans. Indeed, it was first "discovered" in humans in 1890 and is known as Marie's disease after its discoverer. Therefore, we know that it could have had a decided effect on the village's inhabitants as well as on the animals - apparently not restricted to dogs. Perhaps there are cases extant in human burial populations; a literature search is certainly in order. As to the rarity of the disease, the writer has not seen any other instances in his work. The allegation acquires further support from Dr. Peck who affirms that he has seen only two cases in his practice. However, Dr. Hurland is not so sure; since the lung cancers which signal the disease can be diagnosed and occasionally successful therapy applied (or the animal is put away) the disease does not spread very readily. But surgery was not available to the Cleveland village 400 years ago; their animals died. Imprudent handling of such sick animals may have taken its toll of human life as well.

Lest one suggest that the disease was carried from Europe, one must consider the evidence from a Middle to Late Woodland site in Alabama. David Chase described an afflicted dog that suffered from osteoarthropathy over 1000 years ago. (See Eastern States Archaeological Federation Bulletin No.31, p. 10. 1972)

THE DOG - continued

We know a good deal about the material culture of many sorts of prehistoric, aboriginal peoples but we know so very little about their social values, their problems, and their sentiments as to be virtually ignorant. To know something of this dog, through faunal studies, and to translate it into the realm of the living past is to acquire another small but useful molecule of knowledge.

\* \* \* \*

I wish to thank Dr. W.C. Noble of the Department of Anthropology, McMaster University, Hamilton, Ontario for providing the opportunity to examine the Cleveland faunal material. Also to Dr. Thomas J. Hulland, Dean, Ontario Veterinary College, Guelph, Ontario I extend thanks for time taken to help me identify the disease. Dr. Howard Savage gave the initial encouragement for the project.

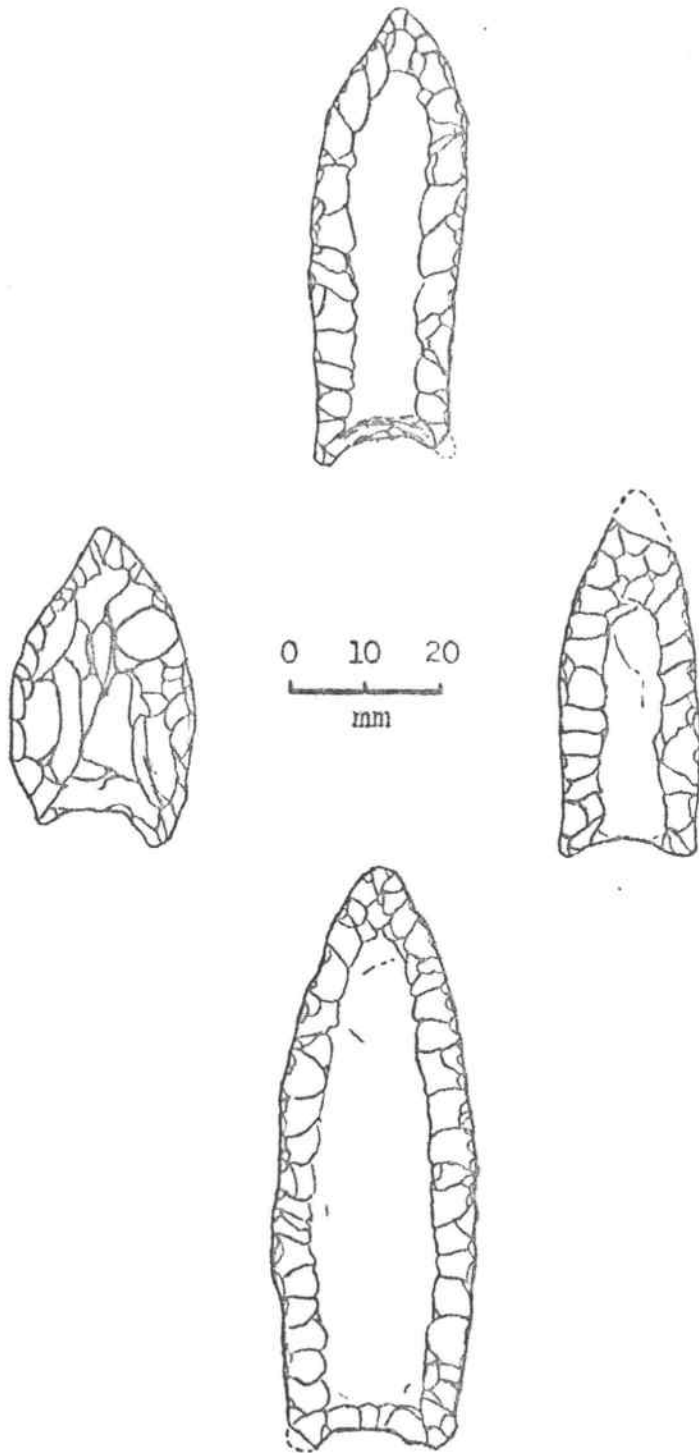
James A. Burns,  
Willowdale, Ontario,  
28 April, 1973.

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SPECULATIONS ON THE ANTIQUITY OF MAN  
IN SOUTHERN ONTARIO

The earliest phase of Ontario's prehistory, the Palaeo-Indian occupation of the province, is at present almost totally unknown. To date, no habitation sites attributable to the Palaeo-Indian have been found in Southern Ontario, and the only evidence of early man consists of less than a hundred fluted and unfluted projectile points, found scattered over the province between the Detroit River and the Ottawa River watershed (see Garrad 1971:7).

In the absence of identified habitation sites, there can be no radiocarbon determinations of the age of these projectile points. It is possible, however, to come to a rough estimate of the antiquity of man in Southern Ontario by studying the relationships between Palaeo-Indian projectile point finds and topographic features (see Ritchie 1965; Quimby 1971:9, 27-42). The Ontario landscape provides excellent possibilities for such a study, for here are preserved lacustrine plains, elevated beaches, and other features which mark the limits of a sequence of lakes which were fed by the melting



PALAEO INDIAN  
PROJECTILE POINTS  
FROM ONTARIO

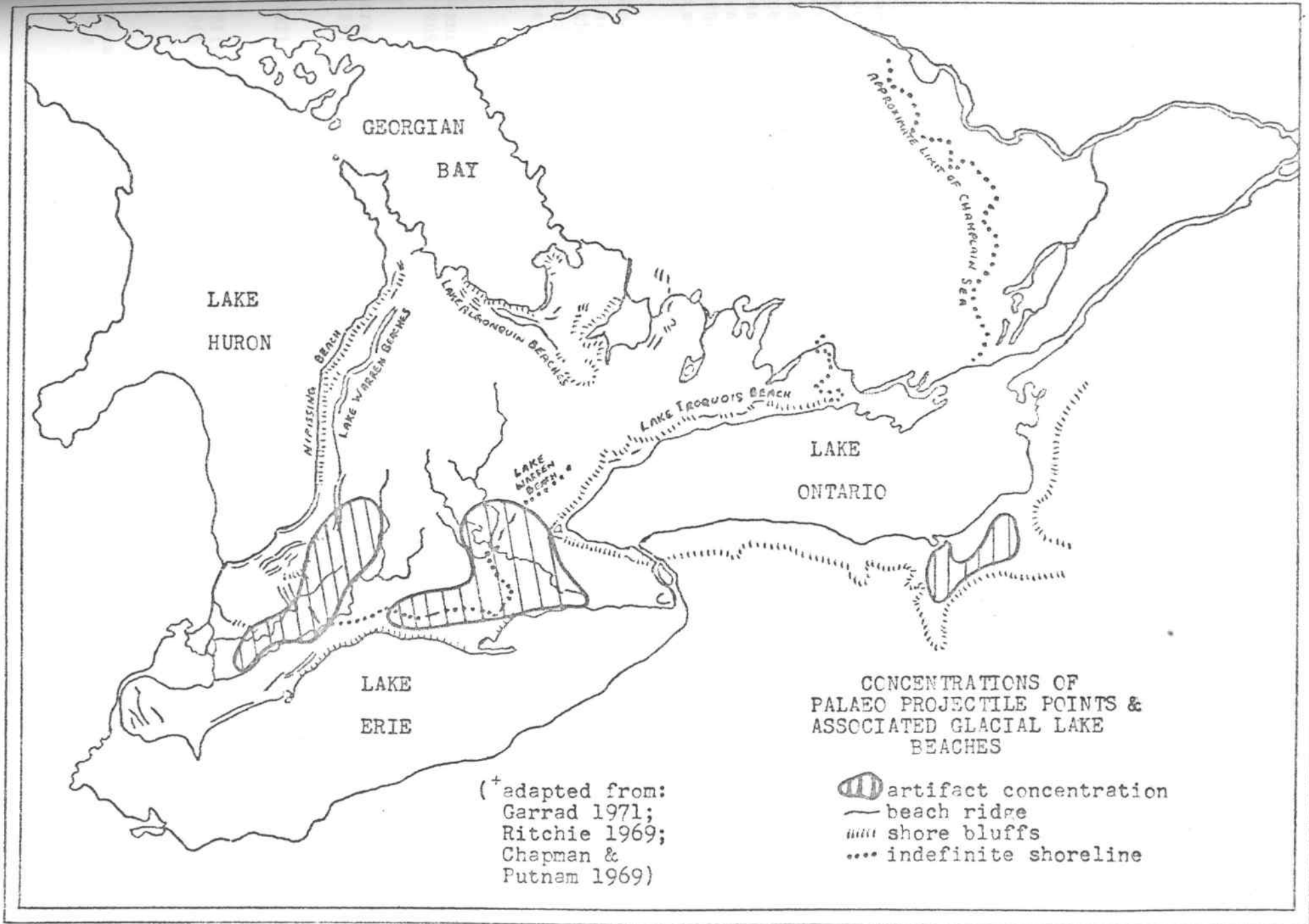
<sup>+</sup> drawn from photographs in Garrad 1971

ice of the last glacier as it receded into Northern Ontario some 15,000 years ago. These have been seriated and dated by geologists, and, though the results are subject to frequent revision, they provide a basic framework for a preliminary study of the age of the early projectile point types. It should be noted that there are many weaknesses in the association dating method including the possibility of redeposition of artifacts (see Garrad 1967:35), the assumption that they were in fact associated with the lakes upon whose beaches they were found, and the possibility that the dates arrived at for the beaches and other formations are themselves inaccurate. Such a synthesis can be but speculative at best, but it is felt to be justifies, in the absence of more substantial information, to indicate the possible age of man in Southern Ontario.

In this study, the data concerning the distribution of Palaeo projectile points collected by Mr. Charles Garrad of the Ontario Archaeological Society (who very generously allowed the writer full access to his information for the purposes of the study), was correlated with that concerning the succession of proglacial lakes contained primarily in Chapman & Putnam (1969), and Prest (1970). The locations of the 34 Palaeo-Indian projectile points for which the exact provenance is known (Garrad 1971; unpublished data) were plotted on a map of glacial landform features in order to establish their distribution and relationships to glacial lake beaches. Topographic maps were utilized to verify each location, and the elevation and soil conditions at each point locus considered as well. The distributions of the other projectile points reported to Mr. Garrad were considered secondarily with respect to beach features and major waterways in an effort to correlate more clearly artifact distributions with the datable topographic features.

The primary concentration of Palaeo projectile points in Ontario occurs along the Sydenham and Thames Rivers between Lake St. Clair and the city of London, an area inundated by a series of proglacial lakes until approximately 12,700 years ago (Prest 1970:716). The Ontario ice lobe receded from the Lake Ontario basin at this time, and created Lake Iroquois about 200 years later, concurrent with the development of Early Lake Algonquin in the Lake Huron basin (Prest 1970:716).

It is possible that initial penetration into the Ontario peninsula came prior to this, as 13 of the 34 points studied appear to have been found above or along the earlier Lake Warren beaches, which are still visible as a double strand running in an arc from the base of the Bruce Peninsula, south of Alviston and St. Thomas, to a point north of Cambellville (Chapman & Putnam 1969: 34-5;90). These points would have a maximum age of 12,900 years by their association with these beaches (Prest 1970:715). Though it may be significant that in Michigan Palaeo projectile points have been found in association with the Warren beaches (Griffin 1965:659), the number of point loci in Ontario which at that time were either submerged beneath the lake waters or sealed beneath the receding ice suggest a more recent date for the initial occupation of the province. Perhaps a study of temporal differentiation in point typology would help to clear up this problem, as it is possible that a population already present at the time of the Warren beaches expanded onto the lacustrine plains as the waters receded in later years.



GEORGIAN  
BAY

LAKE  
HURON

APPROXIMATE LIMIT OF CHAMPLAIN SEA

NIPISSING BEACH  
LAKE WARREN BEACHES

LAKE ALGONQUIN BEACHES

LAKE IROQUOIS BEACH





LAKE  
ONTARIO

LAKE WARREN BEACHES

LAKE  
ERIE

CONCENTRATIONS OF  
PALAEO PROJECTILE POINTS &  
ASSOCIATED GLACIAL LAKE  
BEACHES

(+ adapted from:  
Garrad 1971;  
Ritchie 1969;  
Chapman &  
Putnam 1969)

-  artifact concentration
-  beach ridge
-  shore bluffs
-  indefinite shoreline



The distribution of artifacts in the Thames Valley area suggests that the earliest occupation of the Southwestern portion of the province probably post-dated the Schomberg and Peel pondings, as at that time Lake St. Clair was at its maximum height, and forming a beach at Dresden (Chapman & Putnam 1969:95-7). Two points lay on the sandy floor of early Lake St. Clair, which did not drop to its present levels until 12,000 years ago (Prest 1970:717), and two other specimens discovered lying close to the Detroit River may be associated with the same shoreline (Garrad 1971:no.3,4,5,6).

This suggested date of 12,000 B.P. for the initial influx of aboriginal population into Southern Ontario is supported by distributional evidence in New York, where the principal concentration of projectile points lies below the Iroquois beach ridge (see Ritchie 1969:fig.2). It was at this time that the retreating ice front allowed drainage of Lake Iroquois out through the Champlain Valley (Chapman & Putnam 1969:47), uncovering the lacustrine plain upon which the artifacts were deposited. Unfortunately, radiocarbon estimates from the few Palaeo-Indian components elsewhere in the east do not compare favourably with this estimate. The Debert site in central Nova Scotia has been carbon dated at 10,600  $\pm$  47 years (MacDonald 1968:53), and Bull Brook in Massachusetts has produced estimates at the 9,000 year level (Mason 1962:238). These and other estimates suggest a range of occupation of approximately 2,000 years, from 11,000 to 9,000 years ago, though a larger sample could extend it considerably.

It would appear, then, that 12,000 B.P. could, in light of present information, be considered as a reasonable initial date for the Palaeo-Indian occupation of the southern part of the province, and that, in the absence of more concrete data, the association dating method provides a tentative framework for the study of early man in Southern Ontario.

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David Arthurs  
April 27, 1973

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## coming issues

The June issue of ARCH NOTES will have a report by Peter Hamalainen on an interesting ceramic pot, from Sainte-Marie among the Hurons, which seems to reflect a blending of Huron and European technology. Also, in the near future, we plan a special edition in which reports from O.A.S. Salvage Project 1972 are condensed, based on the work of Marti Latta, Peter Ramsden and Paddy Reid. We look forward to receiving further facts and opinions from all those interested in publishing brief archaeological reports.

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