ISSN 0048-1742

ARCH NOTES

NOVEMBER/DECEMBER 1978 78-6

Dr. J. NORMAN EMERSON
1917 – 1978

FOUNDER AND HONORARY PRESIDENT

The Ontario Archaeological Society (Inc.)

J. NORMAN EMERSON

A Personal Recollection

As I try to see in my mind a picture of what Norman Emerson was like, I am struck by the wide variety of circumstances under which I had the good fortune to be associated with him. I suspect this would be true for many of us, and is an indication of the range of Norman's interests and talents, and of his contributions. My earliest encounters with Dr. Emerson (as I knew him for most of our acquaintance) were due to two institutions for which he will be well remembered: the Ontario Archaeological Society, and the University of Toronto Field School at Cahiague. Soon after joining the O.A.S. in 1961, I had the somewhat awe-inspiring experience of attending my first 'lab session', in which Dr. Emerson challenged the group assembled in the Dirty Lab to explore the mysteries and the applications of faunal analysis. That was only one of the many archaeological interests which he exhorted would-be archaeologists to nurture, and which he actively pursued himself.

In 1962 I lived through the multi-faceted education provided by Dr. Emerson's summer field school at Cahiague. From the drive up Yonge Street in the old brown Jeep, stopping at Bond Lake on the way, to the efficiency of the camp organization, to Norman's lectures on every conceivable aspect of prehistory, to his inimitable style of campfire entertaining - all of these epitomize for me the Norman Emerson of those days. It was also during that summer that, in spite of my efforts, I learned how to use a trowel, a transit, a shovel, and a notebook, how to look for sites, and how to draw maps as well as how to cook chili. Although I may subsequently have lost and had to re-learn some of these things, whatever facility I have in any of them can, in large part, be laid at Norman's feet.

Since those earlier days, my experience with Norman ran the gamut from undergraduate to graduate classes, to helping him run workshops for school teachers, to being a supervisor on the notorious fall digs, to being his Ph.D. student, and (perhaps most memorably) suffering the slings and arrows of outraged society members the year that Norman and I, to our surprise, 'took over' the O.A.S. My most valued recollection is that I also enjoyed the feeling of being Norman's colleague and friend.

As an archaeologist, I am grateful to Norman for the realization that archaeology could address a wide variety of questions, and that any question could admit of an even wider variety of answers. Even more, I have a continually growing appreciation for Norman's conviction that archaeology is interesting, exciting, and worthwhile.

Peter Ramsden
President, 1978

JOHN NORMAN EMERSON

John Donne, the English poet and cleric, wrote ". . .any man's death diminishes me because I am involved in mankind. . ."

The death of Norman Emerson on November 18, 1978, has saddened his many friends. He too was involved in mankind.

His accomplishments as a teacher and scholar are widely known.

Thirty years ago he dreamed a dream which became reality in The Ontario Archaeological Society. His passing is a great loss to Canadian archaeology and this Society.

The direction and impetus he imparted to archaeology is his monument. On the lips of those whose life he touched is his epitaph.

Fond memories will rekindle at the scrape of a trowel; a soft word of encouragement; the glissando of a guitar; until we meet again another time in another place.

Frank B. Mee
Founder Member
President, 1952, 1960

CONTENTS

* * * * *

O.A.S. 1979 EXECUTIVE COMMITTEE

At the General Meeting of the Society on December 13, 1978, the following were confirmed as candidates for election to the 1979 Executive Committee of the O.A.S.:

President:	Mr. William Fox
Vice-President:	Dr. Jock McAndrews
Treasurer:	Ms. Christine Kirby
Recording Secretary:	Ms. Norma Knowlton
Corresponding Secretary:	Ms. Janet Cooper

Nominations have now officially closed and elections will take place at the January 17, 1979 meeting of the Society (in the McLaughlin Planetarium Lecture Theatre). As no position is contested, no balloting will be necessary.

O.A.S. MONTHLY GENERAL MEETING - Lake Ontario Without Pottery - The Aceramic Sites. An illustrated lecture given by Arthur Roberts, York University.

An integrated survey approach designed to upgrade current knowledge on relatively abundant Archaic surface sites was described through a presentation of sample results from a series of specific research projects.

Results indicate that the majority of aceramic (mainly Archaic) sites in Burlington are significantly oriented towards first order streams and spring heads and their site locations are generally well drained. Orientations to other terrain features were found to be not statistically significant. It was inferred that the majority of the sites were winter hunting sites.

Distributions of sites according to cultural affiliation and in relation to regional geomorphology show a strong Paleo Indian and Early Archaic adaptation in relation to Lake Ontario (the presence of submerged sites was also inferred); Middle and Late Archaic sites show diffuse adaptations with sites in all geomorphological areas; ceramic Woodland sites showed preferential adaptations to lighter soils and areas of greater topographical relief.

Statistical procedures have been developed to permit objective classification and grouping of projectile points according to statistically independent metric attributes. Examples of such statistical discriminations and clustering of projectile points were described.

Minerological and elemental analysis is being used in the research to objectively discriminate and cluster cherts and other mineral as well as organic material. An example of identification of red ochre (Fe_2O_3) and organic traces indicating probable hafting cement from a Paleo Indian projectile point was given; identification was done through the use of X-ray fluorescence, X-ray diffraction, infrared spectroscopy and visual criteria from microscopic examination.

* * * * *

O.A.S. Administrator

In the expectation of receiving in the near future the first of many government grants, the Executive of the O.A.S. are inviting applications for the position of Administrator of The Ontario Archaeological Society.

Applications will be considered from persons with proven administrative abilities and a knowledge of archaeology and archaeologists, particularly in Ontarion. Initially the position will be a part-time occupation.

Duties would include: Maintaining the membership list, production and mailing of newsletters; mailing of journals; sale of back copies of publications; physical arrangements for meetings, symposia and other events; dealing with enquiries concerning archaeology and its practitioners; routine correspondence; control of library holdings; storage of archival material; and such other duties as the Executive Committee deems necessary.

The position would require the use of the applicant's home/office address, with an installed telephone and answering service for O.A.S. business. For this, a nominal rent will be paid.

Applications for this position should be addressed to the 1979 Executive Committee, O.A.S., P.O. Box 241, Station P, Toronto, Ontario M5S 2S8.

REPORT FROM THE O.A.S. LONDON CHAPTER

November Meeting

On November 9, 1978, our guest speaker, Dr. Peter Ramsden of McMaster University and current President of the Ontario Archaeological Society, provided us with a very interesting talk. Dr. Ramsden presented a synthesis of his archaeological investigations of proto-historic Huron village sites located in the lower Trent Valley during the past three summers.

We learned that around 1500 AD there was an immigration of 'foreign' Iroquoian peoples into the area. This, we found out, was the beginning of intensive contact between the Trent Valley Iroquois and the St. Lawrence Iroquois

This was indicated archaeologically by increased village size and internal complexity of settlement pattern and by increasing amounts of St. Lawrence Iroquois pottery. And by the middle 1500s heterogeneous populations were crowding into large (10 acre) palisaded towns (e.g. the Coulter Site). Dr. Ramsden indicated that during this time we see the appearance of European metal goods from the St. Lawrence region, a further intensification of contact with the St. Lawrence Iroquois that resulted in warfare, revealed by cut human bone found, suggesting cannibalism, and finally leading to the annihilation of the St. Lawrence Iroquois by the Trent Valley Iroquois.

Following this, in the latter part of the 16th Century, we see a pronounced reduction in village size, culminating in the complete abandonment of the area by the Trent Valley people, probably brought on by pressure from the south by the New York Iroquois.

*

News, Notes and Anecdotes

The next general meeting of the Chapter will be held at 7:00 p.m. on Saturday, December 16, 1978, in Room 19F, Middlesex College, University of Western Ontario, London, in conjunction with our second Annual Christmas Party.

Our Chapter is having an informal Christmas buffet in the 'Grad Club' Reading Room. Mr. Paul Strome, an anthropology student of Waterloo University, will present slides taken during the London Chapter tour of Michigan and northern Ontario.

*

Candidates for Executive Office - 1979 - London Chapter

As of December 4, 1978, the following members were confirmed as candidates to the 1979 Executive Committee of the London Chapter of the O.A.S.:

President: Ms. Norah McWilliam
Mr. Robert Mayer

Vice-President:	Mr. Jim Keron Mr. Rudy Fecteau
Secretary-Treasurer:	Mr. George Connoy Mr. Robert Pearce

Nominations are now officially closed and ballots will be counted and elected officers announced at our December 16th Chapter meeting.

*

More News

The following is a list of speakers who have kindly agreed to present talks at our remaining winter and spring Chapter meetings. This list has been excerpted from the December issue of KEWA, newsletter of the London Chapter of the O.A.S.

January 11, 1979	Dr. W.D. Finlayson The 1978 Excavation of the Draper Site
February 8, 1979	Dr. M.A. Latta Controlling the Heights: Prehistoric Occupations of the Oak Ridges Moraine/Albion Hills Region
March 8, 1979	Mr. I. Kenyon The Archaeology of the Ausable Valley
April 12, 1979	Mr. B. Hellyer Travels in the Yucatan, Mexico

Rudy Fecteau

* * * * *

1979 Grants and Licences

We have been advised by the Ministry of Culture and Recreation that applicants wishing to receive the first instalment of their 1979 grants between April 15 and June 15, 1979, should have their applications in by January 15, 1979.

Those wishing for their first instalment between June 15 and October 15, 1979, should have their applications in by March 1. Applicants for archaeological licences are advised that under normal circumstances, processing can take two and a half to three months.

* * * * *

The ONTARIO HISTORICAL SOCIETY PROCEEDINGS

Co-ordinating Committee for Heritage Groups

Saturday, November 4, 1978

A meeting of the representatives of The Ontario Historical Society, the Ontario Museum Association, the Ontario Archaeological Society, and the Toronto Area Archivists Group, was held in the Boardroom of the Toronto Harbour Commission, 60 Harbour Street, Toronto on Saturday, November 4, 1978.

Present were:	Ontario Historical Society:	F.H. Armstrong M.E. Arthur U.E. Buchner
	Ontario Museum Association:	J.M. McAvity
	Ontario Archaeological Society:	P.G. Ramsden
	Toronto Area Archivists Group:	C.M. Ardern L. Brebner

F.H. Armstrong was Chairman for the meeting and E. Buchner acted as Secretary.

I Organization of the Committee

It was decided that a basic Terms of Reference for the Committee would be as follows:

i) The name of the Committee will be The Coordinating Committee for Heritage Groups.

ii) The Committee will meet at least once per year, with other meetings at the request of member groups as required.

iii) An outline agenda and summary of the proceedings of each meeting will be sent to the Ministry of Culture and Recreation, the Ontario Heritage Foundation, and other heritage organizations in the Province.

iv) The Chairman and the Secretary will be drawn from the same member organization and hold office for one year; the officers will rotate alphabetically by society, starting with the Ontario Historical Society.

v) Each member organization can send up to three (3) delegates, but there will be only one (1) vote per organization.

II Coordination of Types of Meetings and Dates

i) Each member will forward an outline of their planning schedules, as well as a list of activities already set, to the Committee Secretary for distribution to the other members of the Committee.

ii) Complimentary mailings of member organizations' material on meetings, etc. whenever feasible was agreed.

III Common Purposes

i) Each organization outlined their aims, interests and objectives for the information of the other delegates.

IV Funding Common Projects

i) Because of the magnitude and implications involved in funding common projects, this matter was laid over until such time as the Committee is better established.

V Francophone and Multi-Cultural Heritage Work

i) A sub-committee was struck to study and discuss the impact of multi-culturalism on the many different types of heritage work currently going on in the province. The sub-committee will report at the next meeting and will be coordinated by the Committee's Secretary.

The next formal meeting of the Committee will be held in April, 1979.

* * * * *

COIN FOUND IN U.S. IS PRE-COLUMBUS

From the Globe and Mail, November 29, 1978

London (AP) - An old coin found in Maine may confirm the theory that the Vikings discovered North America before Columbus, says a British expert.

Seaby's, the London coin and medal dealers, announced this conclusion in their monthly Coil and Medal Bulletin. Peter Seaby, chairman of the firm, said he studied photographs of the coin and says it is Norse and probably minted between 1065 and 1080. He said it is comparable with coins made for Olaf Kyrre, son of Norwegian King Harold Hardrada, who was killed at the battle of Stamford Bridge in England in 1066.

There has long been speculation that the Vikings, who were bold seamen and navigators, reached North America long before Columbus in 1492. Mr. Seaby said archaeological evidence of Viking settlement has been found on the north coast of Newfoundland, 900 miles away from the place where the coin was found at Blue Hill, Maine.

Mr. Seaby said: "I understand the coin was discovered 17 years ago by amateur archaeologists digging into an Indian rubbish pit that is centuries old, perhaps thousands of years old. How the Indians could have had the coin is utterly unknown. The coin may have been a personal ornament as it seems to have been pierced for wearing around the neck, so it does not necessarily indicate settlement. It might have been taken from the body of a Norseman.

* * * * *

McMaster Symposium

The McMaster Anthropology Society presents its Fifth Archaeology Symposium Ethnohistory and Archaeology on Saturday, February 24th, 1979 at 9:00 a.m. in Room B122, Kenneth Taylor Hall (Arts III). Admission is free and all are welcome.

Persons interested in giving papers, please address inquiries to the Anthropology Society, c/o Department of Anthropology, 1280 Main Street West, Hamilton, Ontario L8S 4L9

* * * * *

Be A Shawabty at the AGO

A Shawabty is a small figurine placed in ancient Egyptian tombs, a magical servant who would perform any type of work for the deceased in the afterlife. The AGO needs your help in this life, the life of the extraordinary Treasures of Tutankhamun exhibition. Seen by more than five million people during its United States tour, this show will come to the Art Gallery of Ontario in November-December 1979.

By volunteering four hours of your time each week throughout the exhibit's two-month duration, you'll not only assist in its presentation, but you'll have free access to the exhibition during your placement period. What a great opportunity to see "Tut's treasures" several times without standing in long ticket lines. Beginning next spring, you will be given the opportunity to participate in an educational training programme which will familiarize you with Egyptian history and culture, the exhibition itself, and general Gallery procedures.

Men, women, students, singles, couples - they need your help in handling the half-million people expected at this, the biggest cultural event ever in Toronto.

If you are able to give your volunteer support, please contact the Volunteer Office, Art Gallery of Ontario, 317 Dundas Street West, Toronto, Ontario M5T 1G4 with your name, address, and phone numbers for day and evening.

* * * * *

O.A.S. January Meeting

The speaker at the General Meeting on January 17th, 1979, will be Alison Easson, Assistant Curator, Greek and Roman Department of the Royal Ontario Museum.

Her topic will be "Introduction to Ancient Coinage: 7th Century BC to Byzantine". It will be a picture show on how coins can inform us about history, personalities, mythology, propaganda.

* * * * *

SYMBOLISM AND ART IN ARCHAEOLOGY

Saturday, October 21, 1978

The fifth annual Symposium of the Ontario Archaeological Society was held in the Civic Ballroom of the Sheraton Centre in downtown Toronto. Opening remarks were made by OAS President Peter Ramsden, who also chaired the morning session. Dr. Ramsden extended a special welcome to non-members and to those from out of town and announced that Brian Molyneaux would replace Allen Tyyska as first speaker of the morning. Dr. Molyneaux, who is associated with the Royal Ontario Museum, is currently carrying out rock art research in the Lake of the Woods area with Selwyn Dewdney.

Symbolic Interpretation of Rock Art - Brian Molyneaux

If cultural data are to be derived from works of art, analysis is both complex and hazardous for the art object can be described as a sign - a thing that stands for something else. It is an image that carries a secondary or conventional meaning bound to a particular culture in time and place. The art most accessible to analysis is iconic, where there is some resemblance between the icon and its meaning. An icon may have a simple likeness, such as an image of a saint or it may be analogical such as an aura or a halo standing for a spiritual power or presence. To understand the overt meanings of these images, the analysis of cultural data is required and if the works are prehistoric the analyst must usually resort to analogies from ethnohistory and ethnography, and this is a tenuous form of interpretation for the most part.

In rock art research, we have a further problem which is close to unique: rock art has no associational context. It is above the ground for the most part and it cannot be logically associated in any way with any cultural group. So there is a considerable problem in trying to interpret the manifestations of the rock surface. It is very difficult to determine what, precisely, these symbols mean. One of the common recourses is to use formal stylistic analysis such as archaeologists use for the analysis of potsherds. Unfortunately, this type of interpretation usually mirrors the values and attitudes of the researchers, simply because there's no grounding in fact; it just depends how you organize your categories.

If the ultimate aim of the interpretation of art is to contribute to an understanding of cultural processes, then the meaning of works of art must be considered on a deeper level than that of the iconic level. Here we must explore the symbolical values of the art, where in the expression of a hidden symbolism the organizing principles of a culture may be found. As Vastokas has observed, this more obscure meaning can be sought in the organization of those images or elements that make up the work of art, in their relationship to each other, in their relationship to their format or ground and in their disposition relative to their surrounding spatial environment. Significantly, these relationships are not necessarily apparent to the artist or his cultural group. In this view, then, the work of art becomes more than a discrete object, a thing with a direct or associated meaning. It must be considered for its interpretation within a context that incorporates both the cultural and natural environments of which it is a part. A painting in a museum is in the context of that museum; before it went into the museum, it was in a different kind of context - perhaps it had a patron. Certainly the iconography of, say, a 15th century Italian painting has connections throughout the whole economic system. So you must consider, in the interpretation

of symbols, the whole complex cultural connection. Certain colours were, for example, more expensive than others. Things such as this have economic and social significance.

One aspect of this integrated approach is the notion of spatial organization. And, if this type of organization contributes to a more systematic understanding of the meanings of works of art, this has particular significance in the study of rock art. As Vastokas and Vastokas have shown in their work on the Peterborough petroglyphs, the site itself can be considered as the work of art, with its components being the carved and painted images and the natural surfaces of the rock. It is this particular form with its hollows, cracks and crevices, that provides a visible and explicit field for the depiction of symbols of - in this case - shamanic transcendance. With the idea of certain spatial characteristics contributing to the meaning of a work of art, beyond the frame as it were, it is possible that other rock art of the Canadian Shield may have some light shed on its interpretation. If the selection and organization of images can be associated with a particular kind of space, the possibility exists that an iconographic interpretation can be made in spite of the lack of more explicit cultural data. An iconography of space or a study of the symbolism of space may provide a reasonable framework within which the extension of the analysis to the images themselves can be made. For example, in Algonkian myth cliffs and crevices could be seen as being especially charged with Manitou and regarded as a dwelling place of the spirit. One finds this idea universal. Transformation myths are also universal; here, various supernatural beings or people are transformed for one reason or another into stone. So we have the idea that stones and the forms of stones have significance. These ideas survive to the present day. There is also another significance in stones which can be illustrated by choosing one myth of the north-west coast concerning stone and elderberry bush: the culture hero, raven, decided to create mankind, so he came to stone and elderberry bush and asked them to give birth. Stone tried and tried, but just couldn't do it, so raven asked elderberry bush. Elderberry bush gave birth, and that is why man lives and dies like the leaves. If stone had given birth, man would be eternal. So, stones have this quality of the eternal. Along with these kinds of concepts there is the idea of holes and crevices as entry points to something else - as thresholds. The hole can be an entranceway to the underworld or a spot in the mystical centre of the great cosmic axis, which would enable a shaman undergoing a spiritual journey to travel from the underworld up into the sky.

For the most part, you could call these signs that would lead to further activities at a particular place. A rock that looks like a man is not in itself symbolic, but it can provoke ritual and it can create myth and it can create all sorts of associated symbolic meanings. Offerings were left by the Huron at just such a celebrated rock on the way to Quebec, described in the Jesuit Relation of 1636. In my work in the field this summer, I witnessed the leaving of offerings at two sites; these are practices that are still carried on, and the sites were all atypical in some way. In the formation of many of these sites, natural symbols were responsible for the selection: a particular curvature in the rock, various crevices and holes, etc. There are a couple of sites which give more of an indication that the land - the atypical nature of certain elements in the landscape - may have some symbolic significance. One, on Hater peninsula in the northern part of Whitefish Bay, is by the water's edge. It looks like a typical site but, with only a small stretch of the imagination, one can see the fish-like form rising from the surface. Careful examination reveals a crevice where the mouth would be, and the eye would be where the lichen has been scraped off. The lichen glyphs

appear to be quite old. Another example, perhaps one even more explicit, is a site on the ceiling of a rock depression. As you move to this particular place, there are sites on either side within 100 metres, one very large and one smaller. This is in the centre: it dominates the landscape when the water is low. Barely discernible on the roof is red pigment in the form of a perfect circle. This is a very secret place where the water is normally covering the site; at low water you can barely get your head under to see the paintings. It is an indication of the use of the space itself as a symbolic entity.

The evidence is inadequate. I feel that for rock art research much more work has to be done in fnnding a decent way to record sites. The sites are all subjected to various forms of interpretive recording. It's extremely difficult to determine the actual forms in many cases. But I think there is potential there that exists beyond the confines of the object, and that is worthy of consideration. If the site itself acts in some way as a unifying element for the rock art, it may open the way to a more systematic investigation of the meanings and functions of this artistic tradition.

Star Charts, Art and Artifacts: A New Approach to Rock Art in Northern Ontario - Thor Conway

When you live in a province that holds one of the two major concentrations of prehistoric rock art in Canada, you often wonder why so little is known about this aspect of our cultural heritage. There are over 300 known boreal pictograph sites and the greatest humber lie in the Ontario portion of the pre-Cambrian Shield. A scattering of related petroglyph sites also occur in widely-separated areas of the Shield. There has been an expanded interest in prehistoric Canadian art in the past five years, due to the work of organizations like the Canadian Rock Art Research Associates and several devoted researchers. About eight individuals are currently engaged in rock art research in Ontario; none of us could talk about the subject without giving credit to Selwyn Dewdney's life-long work in pictographic research and public awareness. In some manner, each of us has apprenticed himself with Selwyn to learn field recording techniques and to share in his unparalleled rock art experiences.

The Historical Planning and Research Branch of the Ontario Ministry of Culture and Recreation is working with three long-term rock projects now. Each of the three northern regional offices is assigning Borden numbers to all the known rock art sites in an attempt to manage them. This also involves re-locating the sites and assessing their status from the site management perspective. Various government land plans in north-western Ontario have created an opportunity to survey some isolated river systems very intensively for rock art sites. This previous summer was typical for Paddy Reid's crews, where they le-located 10 previously-known pictograph sites and discovered seven unreported rock art sites. The third government rock art project is located in north-eastern Ontario, where my wife and I are attempting to record every known pictograph site east of Lake Superior. Our research design places an equal emphasis on site management data, as well as the study of the art forms. Very little is known about the effects of weathering and climatic and micro-biotic factors and other factors that affect rock art sites. We hope to gather these relevant rock art site management data over a decade or so, so that some of these unique sites can be managed effectively. That means we are trying to understand the physical as well as the cultural nature of the sites. One major concern for us is the flooding of pictograph sites. There are more rock art sites in

Quebec, Ontario and Manitoba becoming lost through the hydro-electric projects than through the combined effects of deterioration and vandalism. We are perhaps fortunate that in the north-eastern part of Ontario, we have an opportunity to study pictograph sites before during and after flooding and to assess the results.

I want to concentrate on some recent developments in Algonkian pictograph research. After a brief review of recording techniques and some of the field work in north-eastern Ontario, I will review the progress of morph content analysis. The term "morph" will be used throughout this paper; it simply means form, that is, our interpretation of a form that is used in the paintings. After talking about the geographical distribution of certain pa ntings, I will explain how this led to the discovery of certain related groupings of pictographs on these sites. And, finally, I want to propose that certain pictographs are based on constellations that were recognized by prehistoric Algonkians. This hypothesis is supplemented with a review of archaeo-astronomy and with Algonkian astronomy.

Indian rock paintings in the Cambrian Shield are monochromatic representations of Algonkian astronomy, cosmology, mythology and dreams. Almost all the painting are executed with a pigment made from red ochre. The sites vary from those with several dozen paintings in groupings to those with just a single painting. Most of the rock art sites are situated on vertical rock panels in close proximity to rivers and lakes. Rock art sites are not narrative and they also are not historical documents, as far as we can tell. They deal more with the spiritual, the cosmology. Examples of Ojibwa and Iroquois art seem to have been confined to less permanent media. Dinsmore discusses several pictograph messages that were scratched on the birch bark scrolls and interpreted by her informants in Minnesota. There are other Algonkian art forms, but there are very few of them that are not in perishable media. Other than rock art sites, the only portable rock art objects that we have uncovered in the Upper Great Lakes are copper serpent effigies; these are in native copper that has been wrought into a snake-like form. They have been found on about half a dozen sites around Lake Superior and Lake Michigan and constitute just about the only form of portable art that doesn't perish in the soil.

North-eastern Ontario appears to have a concentration of pictograph sites that is less dense and more central than north-western Ontario. This site distribution could be distorted by the greater number of flooded river systems we have in north-eastern Ontario or by other influences - perhaps the antiquity of sites. Right now, there are 54 located pictograph sites east of Lake Superior. About half of these were previously studied by Selwyn Dewdney although they too need to be re-recorded due to changes in field methods. Often only a limited time was available to Selwyn at the sites he studied, and so it is necessary to go back to these sites. Our copies and the recording of the sites involve the use of acetate or the use of rice paper to record a painting. We record, in as fine a detail as we can, including the lichen encroachments on the sites, the actual rock background, locating cracks and fissures, the intensity and different hues of the pigment. Exact copies are tedious, but they are necessary as the basic data for all rock art studies. And pictograph sites are unique in a way for archaeological sites, since you can literally carry all the retreivable site data in a briefcase. Right now, of the 54 sites that we know of, 15 have been completely recorded. We receive about five new rock art site leads a year, in addition to the few that are discovered in the course of our own bush work. We should be able to have all the sites in this region of Ontario recorded by the same two investigators within about seven to ten

years. Such a goal is not possible further west.

As to some of our basic questions, if you take the average person to a rock art site, the first two questions raised are "How old are they?" and "What do they mean?". Ten years ago, we thought we could never answer these questions. However, it appears now that answers are forthcoming to the age questions from two different directions. John Taylor and Ian Wainwright of the Canadian Conservation Institute have explored the calcite deposits that often occur at rock art sites and accrue on the faces of paintings; they have done cross-section analysis under electron microscopes and they provide hope that we can actually some day date all the mineral deposits accrued over the sites and perhaps offer an aging scheme. Recent archaeological work in various parts of Russia has demonstrated that there are pictographs that are 3500 years old and the climatic and physiographic conditions of these Russian sites are not all that different from the Canadian Shield; so there might be a greater antiquity to our rock art sites than that which had been formerly presumed. What do they mean? Almost all Algonkian rock art is linked to religion and the sites are still treated as sacred places by many native peoples today. The meaning of the pictographs has many facets. At the level of the artist or the individual, the meaning was entirely personal. Our concern is based on a broader level of meaning in relation to the general Algonkian culture. Obviously, ideas and symbols are bound by the culture one lives in, and one draws from them. Shield rock art presents an intriguing assortment of recognizable animals and objects, as well as creatures from mythology and abstract painting.

The following content analysis satisfies part of today's symposium subject, and that is the relationship between art and archaeology. The content analysis of the pictographic morph is a new research problem for northern Ontario, and right now it is yielding very encouraging preliminary results. We are studying the distribution of selected morphs over cultural areas that were occupied by historic pre-Algonkian and Ojibwa bands. During the past five years, our archaeological work in northern Ontario has expanded considerably and it has expanded our understanding of Algonkian prehistory. There are new cultural chronologies being delineated yearly in areas of the Shield which were formerly unknown. There are many unifying trends across the Shield but I think a lot of the recent archaeology is illustrating the presence of many regional distinctions within Shield archaeology and this generalization seems to apply to the rock art as well.

A number of recently-discovered pictograph sites in the Greater Lake Temagami area contain bird-track morphs. A search in the literature for similar paintings revealed Selwyn Dewdney's observation that "if the two figures shown here are bird tracks, they are the sole example I know of in the Shield". There now over 15 additional bird tracks from 5 sites tightly clustered in the Lake Temagami/Lake Timiskaming area that we have recorded. The Beaver House Lake pictograph sites point out to us that there are also changes in the style in which the bird tracks are represented over time, and so far we have found two examples of superimpositions of different styles of bird tracks. This might hint at a degree of antiquity to the use of bird tracks within this limited geographical area. The distribution of these bird track morphs only in the most eastern part of north-eastern Ontario, and nowhere else in the Canadian Shield (except for the Peterborough petroglyphs) correlates exactly with true prehistoric Algonkian band territories. It appears that these morphs are mutually exclusive to sites outside the Lake Temagami/Lake Timiskaming area, except for the aforementioned Peterborough site. We are hoping that, as time goes on, different morph groupings can be correlated with areas archaeologically well defined.

Interaction between rock art research, archaeology and ethnology promises to reward our efforts in understanding Algonkian cultural areas and Algonkian prehistory. To summarize, we have two ethnohistoric band territories that we can define archaeologically as well as through historical documents and this area shows a dense concentration of rock art sites; this rock art area is characterized by the presence of several distinctive morphs, one of which is the bird track.

There is an archaeological correlation between the limits of morph distribution. Some of these distributions include: sun burst morphs in the Missinaibi Lake area, painted hands in north-western Ontario, the Y-shaped bird of death in the Lake of the Woods area. Certain abstract groupings show up in the Lake Temagami area, as do the perhaps-female symbols (a bifurcated triangle form) and the many V-shaped or chevron-shaped paintings.

Content analysis work, with comparisons from the available literature, has led to the recognition that not only are certain morphs located in isolated areas in clusters, but also that there are certain paintings that occur together. The open-armed morph is often shown with a canine companion and sometimes with an animal pelt in the Canadian Shield. The grouping appears to be a culturally-related set of characters, based on the Algonkian lore. There are many examples of open-armed men without a dog/wolf companion; however, wherever a canine representation occurs in the literature or in the field, it has always been highly correlated with the open-armed men. The third element of the triad is the "pelt" morph. Dewdney's published work revealed the existence of 16 pictograph sites and two petroglyph sites which have morphs interpreted as canine morphs. After searching the literature, it became evident that there are two distinct canine morphs which had not been treated separately in earlier studies. The first is what may be termed a dog morph and which depicts characteristically an animal with erect tail (or one curled up over the back), a face with distinct muzzle, straight back. The 13 dog morph sites are wide-ranging: from Minnesota, Lake of the Woods, north-western Ontario, Red Lake, north-eastern Ontario and at the Peterborough petroglyphs. About 75% of the 21 dog morphs identified at these sites are associated with the open-armed human figure, so the association is quite constant over a wide geographical area.

The second canine morph is the wolf morph. It generally consists of an animal having a long, low bushy tail, hunched-up shoulders and a back sloping into the tail. To date, 8 wolf morphs have been identified at 7 different rock art sites in Ontario: Lake Temagami, Lake of the Woods, and the Lake Nipigon area. Both canine morphs show a bimodal geographical distribution (concentrations in north-eastern and north-western Ontario), but it is spread more widely than other subjects. Dog canine morphs are occasionally associated with human figures, whereas the wolf morphs are always so associated. Thus, it is postulated that there is an Algonkian triad in operation at these rock art sites that includes the wolf, an open-armed figure and an "animal pelt".

The growth of North American astronomy research is evident from the appearance of two recent books of collected papers on the subject and an active newsletter called the Archaeo-astronomy Bulletin. Fortunately, there are some ethnographers collecting through folklore the cultural heritage of Indian groups in regards to astronomy. Henry Schoolcraft left us a mass of written legacy of observations on the Ojibwa and Upper Great Lakes history and prehistory. From one of his monumental works published in the mid-19th century about the Ojibwa astronomy "the evening star was formerly a woman...in another case an ambitious boy became one of the planets... three brothers travelling in a canoe were translated into a group of stars

...the fox, lynx, hare, robin, eagle and numerous other animal species retained places in the Indian system of astronomy". So what is proposed here is that this triad of symbols of wolf-like creature/open-armed human/animal pelt are constellations and that this appears to be well-based, given scattered references to Ojibwa and Algonkian astronomy. In terms of constellations, I believe that the open-arm morph could represent the constellation Orion. It is one of the more common constellations and is set against the dark, relatively star-free background of the milky way. Gemini, the twin constellation, fits well with the animal pelt in its relative location and in the fact that there is a bilateral symmetry in the animal pelt morph as there is in Gemini. And what we call the Dog Star, Canis Major, follows Orion in his nightly course, and it would appear from Algonkian mythology that they recognized the Dog Star as dog or wolf, as well. This conjecture should be treated as a working hypothesis, based on available data. Judging from the distribution of these morphs, groupings across the Canadian Shield, we might be recognizing a basic Algonkian astronomical belief within the rock art. These paintings cover an area of about 1200 miles and the different painting styles could well represent a time depth. Ultimately, I'm sure other Ojibwa astronomical lore will be found. Originally, perhaps, the portrayals of constellations may have been rather rigid and in their correct positions; through time, there might have been a drift and people may have continued to paint the morphs together but not in their correct placement, because they no longer knew the origin of the morphs.

As rock art research grows in volume and detail, we will no doubt find more attempts to interpret individual morphs and groups of paintings or carvings. Like any field of anthropological enquiry, there is a need to present the data, the observations and the hypotheses in a rational manner, because we know the populizers and the lunatic fringe of archaeology always seem to grasp and distort these exciting subjects. But I hope and believe we can test these hypotheses carefully with rock art data and with documented Algonkian astronomical beliefs. Only by merging the rock art data with ethnohistoric references can we eventually test these hypotheses.

Further research may show that some groups of paintings were Algonkian recognitions of constellations and that the Algonkians drew on their astronomy lore and protrayed some of it in their rock art sites. As research continues, we will perhaps some day be able to answer the question "What do these paintings mean?".

Ontario Iroquois Effigy Pipes - William Noble

Effigy art, as a whole, has a very long and sporadic history during the Ontario Iroquois Tradition. The earliest evidence appears with a ceramic fish effigy excavated at the Princess Point type site, dated to about 500 A.D. William Fox has recovered a human effigy from the 1050 A.D. De Waele site. Some sparse occurrences certainly indicate that the effigy art is earlier, but is very rare and is apparently restricted to the Glen Meyer branch of the Early Ontario Iroquois development. It was initially associated with amulets and special charms, rather than with smoking pipes.

The focus of this paper is on Ontario Iroquois effigy art as it appears on pipes. Temporally, this means that we are examining a Late Woodland phenomenon, spanning the period from Middleport times (ca. 1380 A.D.) to the historic era of about 1660 A.D. Both David Boyle and J. Norman Emerson had previously remarked upon the fact that effigy pipes represent the finest product of Ontario Iroquois lithic and clay art work. In both mediums,

the one solid the other plastic, individual skill is manifest and ranges from the starkly simple to consumate realism. But are the pipe effigies art objects, or do they hold much wider and deeper symbolic meanings? To answer the question, we must first look at the various e figy pipe styles and then advance to the consideration of possible or probable interpretations - what this art style is and what means.

When we look at the styles, it's evident at the outset that they comprise both zoomorphic and anthropomorphic figures. This is a basic division appearing in the pipes as early as the Middleport period. There are some 31 Ontario effigy pipe styles that have been recognized; standardization occurs in some, but not all, of these. When you compore the various styles of pipes in the two mediums, you find that many of the more popular styles are in both, but many many more of the human effigies are executed in clay. Taxonomically, we classify the pipes under three main groupings: zoomorphic, human effigies and dual effigies. The latter are extremely rare.

The different zoomorphic effigies number only around 10 are are divided into birds, reptiles and mammals; birds constitute the largest category within this division. Bird species represented include horned owl, ducks, eagles (or possibly pelicans), raven or pileated woodpecker, and (rarely) loons. Reptile species represented are snakes, salamanders and turtles. Surprisingly, only two mammal species - bears and canines - are represented. It is also inter sting to note that that the snake, salamander and owl effigies come in two different varieties. J. Norman Emerson noted the difference between the appended, coiled snake and the snake effigies where the open mouth forms the pipe bowl. Similarly, salamanders come in two different postures: those that portray the creature crawling up the pipe bowl back and those that are standing on their legs at the bowl front and peering at the smoker. The owl effigies, too, appear in two forms, one of which features stylized eyes that comprise 2/3 of the effigy while the smaller-eyed variety comes much closer to natural portrayal. All these styles change throughout their life history, sometimes almost imperceptibly.

Equally notable is that many seemingly-common species are not portrayed. For instance, there are no fish effigies in the late prehistoric, protohistoric and historic periods - no squirrels, deer, raccoons or porcupines.

Some 20 to 21 human effigies are recognized and thsse have been classified as to whether they are heads only or whether head and body both are included. The former far outnumber any other category of pipe effigies we have; they occur in both single and multiple representations on a given pipe. Characteristically, the human face effigies usually focus on central-face features: eyes, nostrils and mouths. Specific embellishments are incorporated: mouth tattoos, wrinkles, grimacing both in eye and mouth expressions. These serve to heighten the central face attention. There are others which are not central-face directed. These include the pierced-ear effigy which draws attention to the lateral extremities of the face. Others are noted for their top-of-the-head features: coiled ha rdos, caps, top-knots, etc. Simple though they appear, the moon face, ghost and cone-head styles convey a deep sensation of eeriness.

Those human effigies that incorporate bodies usually highlight some feature of specific posture or body garb. For instance some are sitting, crouching, kneeling, pinching the face with arms and hands, clasping the hands in front of the chest or wearing necklaces. Recently, Carol Nasmith has excavated a rather unique torsoed human effigy that exhibits what appears to be vertical shirt buttons and what may be horizontal armour slats or an X-ray portrayal of ribs. But, normally, few details appear on the bodies

of these effigies and details of the extremities (fingers and feet) are usually quite rare. Human effigies also show less standardization than the zoomorphic ones: only six of the 20-21 human effigies appear to have standardization, that is the sitting variety, capped varieties, blow face, open lip, pinched face and the Janus pipes. The latter shows two identical human heads facing in opposite directions. Indeed, individual variation appears to be the rule.

For the past 80 years, varied interpretations have been offered as to what Ontario Iroquois effigy art is and what it means. We can trace the development from the early Ontario researchers like David Boyle, Andrew Hunter, George Laidlaw and Wintemberg through to more modern scholars like Emerson, Wright, Kidd, Noble, Ramsden et al. Ultimately, too, we can utilize the short eye-witness accounts of Gabriel Sagard in 1623 and Boucher in 1633. All of these past attempts have met with and ended with rather unsatisfactory results, some of which resulted in simple frustration, some of which were only refinements in taxonomy and some of which have optimistically suggested kinship correlations. All the researchers to date have met with problems, even the most imaginative of them, because they have been searching for a single, all-inclusive explanation for Ontario Iroquois pipe effigy art. But this art is very complex and requires multiple explanations that are effigy-specific and are relative to specific time periods and social contexts.

To look at some interpretive avenues that might offer some explanation, we might first examine the aesthetic view. This demands that the viewer forget the cultural context of the pipe effigy and take an art for art's sake approach. Gabriel Sagard advanced this approach when he stated that "the Huron make pictures of men, animals, birds and other things in caricature. They make these not for idolatry, but to enjoy looking at them as an ornament for their calumets and pipes and to decorate the front of their lodges". Unfortunately, Sagard had little understanding of the Huron kinship and religious systems, and certainly no idea of the role of the medicine society.

Another view, the ceremonial art view, is an interpretation raised by George Laidlaw in 1903 and he succinctly sums his position with the words, "I do not think that these pipes were all ceremonial or made for a ceremonial purpose, but no doubt they may have been used on ceremonial occasions". He then proceeds to modify his evaluation by reasoning that Ontario Iroquois effigy pipes may have become ceremonial through investiture associated with medicine or environmental activities. His view gains some corroboration from Sagard's comment that the Huron had both calumets and pipes. But can we today distinguish the ceremonial pipes (the calumets) from others? Probably some pipes, both effigy and non-effigy, achieved ceremonial status; but this is not provable.

The third approach is to look at this art as individual art. This view is the one that Laidlaw finally settled on, out of frustration at not being able to correlate pipe effigies with authentic animals. He concluded that they were the "results of individual skill and taste". We can probably concur with him on the point of individual craftsmanship: the range and variety of styles and the different degrees of workmanship attest to this. But the matter of fad-ism in effigy styles is another matter best left until a consideration of historical interpretive views.

Then there is the view that this art is objective portraiture art, simply an attempt to portray the animals and humans of the day as they were. David Boyle firmly believed that "primitive art is not portraiture in the exact

sense" and that tith the human effigies there was no attempt at portraiture. There is much evidence to corroborate this observation for, in virtually all instances, few of the human effigies even look like native American Indians. The closest this art comes to portraiture lies in the representations of specific hair styles, head bands, necklaces and tattoos that we know existed during the historic era. Now, in the zoomorphic effigies, portrait art does appear to be the rule, especially for the birds: we are able to identify the bird species with some degree of accuracy. Snake, salamander and turtle effigies defy precise identification. Black bears are readily identifiable, but differentiating a wolf from a dog is most difficult. In sum, portraiture interpretations can be made in some, but not in all, of the Ontario Iroquois effigy pipes.

The fifth attempt to explain this art is to consider it as children's art. The degree of sophistication tends to rule out this suggestion as does the recognition that pipe-smoking is historically known to have been restricted to adult males. It is true that David Boyle's interesting comparison between kindergarten children's attempt at the human form and those forms on the effigy pipes reveals many parallels, the most notable being "as with child, the head is everything in primitive art".

Attempts to interpret the pipe effigies as sex symbols can reasonably be rejected. Sex simply is not depicted, unless one chooses to read Freudian connotations into the snake effigies.

Historical interpretation of art usually attempts to authenticate authorship, establish stylistic trends over time and space and make cultural comparisons. Research along these lines has been rather limited, but it remains an essential pursuit if we are to properly understand the context and the life history of these pipes. It has been noticed that the donut-eyed human and the salamander effigy pipes were the first to appear in the last prehistoric, during the Middleport period. These two styles, in addition to many of the other non-effigy styles of course, may very well be part of a whole new type complex introduced into southern Ontario from New York. During the late prehistoric (1460-1540) many new human styles fluoresced; there was a tremendous increase during that period. Laidlaw early correlated the marked appearance of effigies with the advent of the white man in the St. Lawrence basin. Fad-ism appears in the human effigies, as suspected by Laidlaw, but it cannot resolve the problem because we lack the control chronology. Now it is apparent that it is in the 40-year gap between the early and the late protohistoric that we see many of the pipe fluorescences of the early protohistoric dying very quickly, though some do continue into the historic. As to authorship, there is no doubt that the Ontario Iroquois were the artisans, but it is unknown how many of the effigy styles were Huron and how many Neutral. Much remains to be done on this question, but already it is apparent that the Hurons fashioned many more representations than the Neutral, particularly in the ceramic medium. On the other hand, limestone pipe effigies appear most frequently in Neutralia and are probably attributable to historic Neutral authorship. Historic interpretation, then, offers many details of the chronological and cul ural context.

The totemic line of interpretation was met with frustrating results. Wintemberg, Hunter and Laidlaw each failed to link pipe effigies with tribal or clan groupings. Many creatures depicted were not totemic; wide distribution of effigy styles inhibited their attempts at making one-to-one correlations between effigy pipes and totems. Re-examining this line of enquiry

it was decided to investigate at the lower level of lineages. Totemism is a characteristic of lineages and there is ample evidence for them among the historic Huron. Sagard, as you will recall, noted that effinons appeared on both pipes and longhouses, and, while he did not expressly state that they were identical, correlation of excavated pipe effigies with the documented longhouses (and, incidentally, body tattoos) indicates that some were, indeed, similar.

While Ontario Iroquois effigy art is reasonably straightforward to describe, determining its meanings is more difficult. Despite its basic zoomorphic and anthropomorphic nature, this art is complex. Perhaps the most important contribution of this paper is the realization that no single, all-inclusive explanation can be offered towards the meanings of the effigies. Rather, multiple meanings have to be sought, and the following observations help demonstrate this: (1) the effigy art is individualistic in the sense it is the product of individual skill and taste, (2) standardization is evident, but only in some effigies, (3) some pipes probably acquired some ceremonial status, but whether they were solely effigy pipes remains unknown, (4) some, but not all, pipe effigies represent portrait art, (5) there are parallels between the human effigies and children's art, but this is not children's art - it is an adult expression, (6) the pipes are not sex symbols, (7) some effigies continue from earliest times to the historic, but others - particularly in the human range - appear to be short-lived, (8) while some zoomorphic effigies appear to represent lineage totems, other effigies have different interpretive relationships, one of which - the wolf or dog effigy - may be a cosmological representation of the sun, (9) the pinched-face and blow-face human effigies could well represent shamans, and (10) the open-lip and blow-face human effigies have interesting parallels to specific masks.

Interpreting Prehistoric Art: Method and Theory - Joan Vastokas

In their definitive history of American archaeology, Gordon Willey and Jeremy Sabloff have outlined the major theoretical phases of New World archaeology. After a long initial period of speculation in the earliest era of discovery, a sustained preoccupation with classification prevailed from 1840 to 1940, during which time descriptive classification yielded to a concern for chronological placement and historical reconstruction. From about 1940 to 1960, the concepts of function and context governed archaeological recovery and analysis. It was a period during which the study of settlement patterns and cultural adaptations to specific environmental settings characterized the work of the most progressive archaeological theorists. Since 1960 or so, however, we have entered the era of the New Archaeology which seeks primarily to explain cultures in terms of the processes of cultural change and adaptation. Explanatory concerns are still very much with us in the 70s, most recently pursued in the light of general systems theory, for example. But Willey and Sabloff's history will have to be brought up to date very shortly, for the 1970s will no doubt be characterized in the future as the decade of interpretation. Interpretation is becoming a major theoretical issue in archaeology because it has come to be recognized that without valid interpretations of the function and meaning of prehistoric remains, no valid conclusion regarding process or explanation can possibly be made. This is as true of settlement patterns as it is of stone tools, ceramic wares or Iroquoian effigies. But interpretation is a particularly important issue for the study of prehistoric art. This is so because it is through works of art as expressive and

symbolic systems of visual communication that the prehistorian has any hope of recovering the ideological and spiritual content of a prehistoric society. The study of economic, social and technological systems - while vital and basic - will yield only certain kinds of information about prehistoric peoples. The study of prehistoric art, on the other hand, promises at least a partial recovery of their intellectual, cognitive and spiritual achievements.

Take the history of the study of rock art, for example, which has been beleaguered with numerous and frequently-contradictory interpretations. These have ranged from an entirely non-utilitary, art-for-art's-sake explanation, to a utilitarian economic role, that of instrumental or sympathetic hunting magic. According to this common view, rock paintings in upper paleolithic caves were executed so that the artist would gain a magic control over his quarry through the sheer pictorial rendering of his prey, or by the flinging of lances at painted prey. This sympathetic magic interpretation of rock art function gained enormous respectability in the early 20th century and still survives in much current literature on rock art in both the Old and New Worlds. Others have interpreted rock art as an early, generalized form of writing. Petroglyphs, and especially pictographs, are seen as ideograms, the first still-representational step towards the abstracted and symbolic letters of the various alphabets that have been developed throughout the world. As pointed out in a recent and important thesis on rock art interpretation by Brian Molyneaux, rock art study from its beginnings and throughout the 19th and early 20th centuries was largely linked with and paralleled in methodology the concerns of philology, the study of language systems and of the development of writing.

Art for art's sake, hunting magic and writing have comprised the major categories of interpretation and explanation for rock art in the past. Contemporary investigation, however, is becoming more cautious, less dogmatic, more diversified and systematic in terms of the methodology of interpretive analysis. Early writers on rock art are now being criticized for what might be termed their methodological ethnocentricity, that is for seeing prehistoric rock art from the point of view of their own culture and their own time and for imposing upon rock art interpretation their own cultural, ethnocentric or disciplinary biases. In recent years, emphasis in archaeological and ethnographic method and theory of interpretation has been systems theory and ethnoscience. The former has been all-important for some recent rock art research because through the influence of the systems approach, rock art is no longer seen in isolation as a collection of disjointed or isolated pictures or motifs existing in a cultural or environmental vacuum. The ethnoscientific method has been of equal importance because in the application of its methodology, investigators strive consciously and vigorously to abandon their cultural and disciplinary self-centredness, whether methodologically or culturally determined. They seek instead to examine the function and meaning of rock art and other art forms, for the first time from the point of view of the artists themselves.

As far as rock art is concerned, however, both systems theory and ethnoscience may be described as contextualist in nature; archaeologists who apply the systems idea and ethnologists who practise ethnoscience are both aiming to interpret their cultural data in a much broader context than before, one that is not concerned with arbitrary, often culturally-irrelevant, categories of classification but is concerned with an integrated, culturally- and environmentally-holistic approach to the fragments of data at hand. Thus, instead of our simply accumulating lists of pictorial

elements and plotting their distribution on maps, an investigator concerned with the wider context of rock art avoids these arbitrary classifications, recognizes that the study of rock art is not limited to the identification and charting of isolated pictorial designs, elements or so-called morphs, but necessarily takes into account the positioning of those images on the particular site, explores the physical and even psychological character of the site itself, examines the geographical relationship of the site to the wider environmental setting and investigates as far as possible the significance of the site and its images in the context of its archaeologically or ethnographicatly known culture. In thus striving to understand rock art in any given region from every conceivable point of view - environmental, economic, social, religious, calendric, ritualistic and cosmologic - the contemporary rock art investigator brings to bear whatever interpretive forces he can muster upon his elusive data.

That branch of the discipline of art history which is known as iconography is particularly important for the interpretation of art anywhere, since it is concerned with the identification of pictorial images, subject matter or recurrent motifs - most often with reference to the tales, myths or other verbal or literary products of the culture or period during which the work of art was made. Irving Panofsky, a major oconographer among 20th century art historians, has pointedout that iconography furnishes the necessary basis for all further interpretation, while what he terms iconology - the study of iconographic images in their cultural context - is even more vital to the purposes of art, since it seeks to explore the intrinsic meaning of art works, to determine and isolate the cultural criteria which underlie the choice and arrangement of pictorial elements within a work or a series of related works. But Panofsky was concerned primarily with western art, for which historical records survive. How is it possible, then, to get at the intrinsic meanings of prehistoric art, for which no cultural information remains. This is where hermeneutic theory can assist the interpreter of prehistoric art. For years, hermeneutics was a study limited to the interpretation of religious texts, but more recently it has become aligned with phenomenological philosophy and applied largely in the field of literary criticism and interpretation. While hermeneutics in general would require a lengthy description, it is enough to state here that it has not yet been systematically applied to the interpretation of visual art, either historic or archaeological. Yet the key idea of hermeneutic theory - that a work of art exists in its own right and yields meaning without reference to outside phenomena - has been latent within a branch of Germanic art history since about the 1920s. Our own study of the Peterborough petroglyphs stems, I can see now in retrospect, from that art-historical tradition in which we have pointed out the interpretive independence of creative products and have emphasized the position that works of art, like languages, have an inner logic of their own, an order which can be recognized and described - frequently with minimal support of additional cultural information. From this theoretical point of view, works of art may be considered as pure forms, having an independent existence as complete systems or representational wholes that embody both overt and hidden meanings. While overt meanings, such as iconography is concerned with, require that we know who the artist was and what he thought about the specific meaning of his works, the deeper, more obscure meanings are to be discovered in the work itself. In other words, intrinsic meanings are not always readily apparent to the artist or to the observer, but must be extracted from an analysis of the organization of the formal elements or images that make up that work of art, in their relation to each other and in relation to their format and in their disposition

relative to the surrounding space. What is important to the prehistorian is that such intrinsic meaning and latent principles of organization are fundamental principles of cognition that shape the works of art as well as the cultural whole that generated those works. This is also the key position of cognitive anthropology.

That works of art may be interpreted in this manner, however, with little assistance from accompanying cultural information, was first recognized as a theoretical possibility for the interpretation of prehistoric art in the early 20th century. In striving to interpret the meaning of ancient Egyptian sculptures, for example, an Austrian scholar employed what some have termed a structural analytic method of approach in which he focused on the internal formal organization of the sculptural works themselves as well as their extrinsic interaction with space and environment. He made the vital observation for interpreters of all kinds of prehistoric art, that the reality of the object consists in the full texture of its relations with its environment. His approach is most valuable for interpreters of prehistoric art since, as an admirer of his method puts it, "it renders accessible to the surviving material artifacts, which are so often our only evidence, the structure and content of consciousness in epochs for which we have no written documents". It was just such a recognition of the Peterborough petroglyph site as an independent system of images in relation to a particular physcial and environmental setting that serves as a key to its interpretation as a sacred place, approximating in meaning that of shrines or temples in societies characterized by more visible and complex forms of architectural expression. This site, it was concluded, was a microcosm of Algonkian cosmology and probably functioned as a nascent shrine or cathedral of later neolithic and urban societies. So we can add the basic idea of hermeneutic theory to those other methods already being pursued and practised by prehistorians for the reconstruction of meaning in prehistoric art - add this to systems theory, to structural analysis and to ethnographic analogy. Thus, while most interpretations of prehistoric art have been limited to the determination of function - that is, the utilitarian role of a work or works of art within a particular culture - or, more recently, to interpretations of subject matter or iconography, interpretations based on the work of art itself as a visual system, its underlying structure and patterns of organization as well as its expressive qualities - in short, as an objectively describable visual system of communication - have been few in number.

Awareness of the issue of interpretation and of the value of hermeneutic theory and its application, however, ought soon to lead to more valid interpretations of prehistoric art than we have had in the past.

Symbolic Aspects of Burial Interpretation - Jerry Melbye

The purpose of this paper is to attempt to develop a theoretical framework within which any mortuary custom may be explained.

We generally recognize that the mortuary custom of any specific group is a symbolic ritual. It remains, therefore, to identify unifying aspects of these rituals. Anthropologists generally recognize that communal rites fall under two major headings: rites of solidarity and rites of passage. The distinction between these two types of rites is purely functional. Rites of solidarity usually result in greater group cohesion and often act as a prelude to unified group action. Rites of passage, on the other hand, result in a change of status for individuals and often function to serve

notice of altered relationships within the established structure. There may be many unique rites of passage for any culture. However, there are four that approach universality: birth, puberty, marriage and death. This paper will focus on the latter ceremony.

Anthropologists have been fascinated by the remarkable, uniform pattern to any rite of passage; whatever the transition, it must be ritually expressed. First the subject must be removed from the old category, secondly the subject is placed in a sort of "limbo" state while the old category is symbolically extinguished, and thirdly the subject is ritually returned to his new status.

The mortuary custom of any culture must, therefore, symbolically fulfil this function. There, however, some unique functions as far as mortuary customs are concerned. First, the removal of the subject from his old category - that of being alive - is a foregone conclusion over which the people have no options as far as time, place and situation are concerned. It follows then that no culture can have only one absolute ritual; it must provide alternative rituals to meet emergency or unusual situations. Witness the variability in our own culture: sailors who die at sea are not interred in the ground; soldiers who die so that their bodies are never found or identified are ritually buried in a tomb called the tomb of the unknown soldier. As we look into the prehistoric of any particular people we are struck by variability and usually spend our time trying to find associations with age, sex or status of the individuals. I would like to put forward that we should expect some variability, based on situational circumstances. For example, during the Archaic period in the Great Lakes region we find about half the burials cremated and half as simple primary interment; yet, we have no associations with age, sex, status or local region. Could it be simply that six months of the year the ground is frozen solid and the culture provides two alternate ceremonies based on the season? The point is that the inference regarding mortuary customs based on archaeological evidence should be stated in statistical terms, because cultures imply must provide alternatives for unusual or unforeseen situations.

The burial ritual, culminating in the final disposition of the body, corresponds to the "limbo" state in the sequence of events. All cultures that I know of recognize the status of being alive in the present world, prescribe a burial custom and finally recognize a new status of life after death. It is in this area of prescribed burial custom that most archaeologists find hard data with which they can deal. We talk of flexed, extended, bundle, cermation and so on; we talk of the grave as a pit, mound, ossuary, cairn, etc. The one thing we don't talk about is the symbolism of what is going on. At this point, it is hard to speak in general, universal terms; however, in general, the human burial which the archaeologist observes in the field is the result of a mortuary custom which symbolically extinguishes the old state of being alive and transports the spirit to the new life. Often, this ritual involves grave goods, which we presume are objects to be taken to the afterlife. But I put forward, are they? Note how often these objects are ritually "killed", that is, rendered useless to the living world. Pots may have their bottoms purposefully broken out, other objects are either deliberately destroyed or burned. Also note that, whether the objects are destroyed or not, there is never a complete inventory of the artifacts one would require for the new life. So I repeat, what is the proper interpretation of these objects? I believe they are symbolic representations to a spirit which must find its way to the afterlife; often spirits or ghosts - particularly malevolent ones - are

considered to be spirits who have not been properly transported to the afterlife. If this is an acceptable generalization, it follows that grave objects are dynamic in the sense that they are gifts to an active spirit seeking its way to the afterlife. Grave objects are not gifts to a dead body, nor are they gifts to a spirit living in the afterlife; they serve a temporary function during the "limbo" stage while an individual is being symbolically transported to his new social status. Manipulation of the corpse may be critically important to describing mortuary ritual. It is precisely here that I believe we could do a lot more in archaeology. We do not interpret what we see.

I have surveyed the archaeological literature extensively in this area, and I confess we are dogged conservatives when it comes to describing the disposition of bones. I defy anyone to go through the archaeological literature and truly compare bone disposition. We do not see beyond flexed, bundle, cremation, etc. I submit that this is not an interpretation; it is an oversimplified pigionholing and does not even begin to properly describe a burial. I have given a paper elsewhere on the art of burial description. Briefly, every joint articulation is important and its degree of flexion may be important. I have examples of so-called bundle burials, some of which show partial articulations, such as an elbow or a foot; these are important clues to post-mortem disposition of the bones. We can infer that the bodies were allowed to almost completely decompose, but some of the ligaments held certain elements together. We can infer six months to a year, depending on the season, as the time that passed before the final interment. However, I have other examples of so-called bundles which have no articulations whatsoever. Indeed, there are no small or irregular bones and examination of individual bones reveals cut marks representing dismemberment. We can here infer a very short period of time between death and interment. I could go on with examples for hours, but that is not the point; the point is that we have ignored a vast area of interpretation and it is largely irretreivable. I have looked longingly at pictures in archaeological reports of the Great Lakes region to discern patterns of mortuary customs; it cannot be done. At any rate, such information is necessary to infer the elements of the ritual which will transfer the individual to his new status. Once the individual is safely in his new status, he is no longer a danger or a threat. Indeed (to generalize), such individual in the afterlife status often take an active role in the culture of the living. This was noted by Linton in 1936 when he discussed social status. He ended by discussing the social status of the dead and said, "When a man dies, he does not leave his society, he merely surrenders one set of rights and duties and assumes another" and "In spite of rather half-hearted attempts by the living to explain to the dead that they are dead and to discourage their return, they remain an integral part of the clan. They must be informed of all important events, invited to all clan ceremonies and to every meal. In return, they allow themselves to be consulted, take an active and helpful interest in the affairs of the community, and act as highly-efficient guardians of the group's mores."

We see then that the third characteristic of the rite of passage is fulfilled and a new status is attained symbolically through the mortuary customs of the gorup. Once a person, spirit or whatever is transported to his new social status of being dead and in the proper afterlife, he is no longer a threat to the social system. Indeed, one could argue strongly that he becomes a more usefully functioning member of the culture.

From the foregoing, it is apparent that burial data provide the archaeologist with a rare opportunity to interpret symbolic ritual. Unfortunately,

we have not exploited this opportunity. The reasons for this are complex. On the one hand, archaeologists have had to make choices and have opted for more pressing and interesting problems such as stratigraphic sequence, settlement patterns, ceramic analysis and so on. On the other hand, physical anthropologists have been largely untrained in field archaeology and these data interpretations require excellent archaeological technique, plus a thorough training in human skeletal biology. This seems like an impossible task for one person to acquire, at least in modern times with modern technology. What must be involved here is a group effort in terms of scientists. As a footnote, I might add that the interpretation of symbols is the bablum of archaeologists, because human culture is a symbolic system. The interpretation of mortuary customs as symbolic rituals would cause any archaeologist to, at the very least, breathe hard. But we have missed the boat and it may not dock again for many years. In the light of the present political climate, the possibility of improving seems rather difficult in North America.

Symbolic Aspects of Thule Eskimo Technology - Robert McGhee

The subject that I've been asked to discuss today is not symbolic interpretation of art objects, but symbolic interpretations which we might be able to apply to the sort of ordinary and everyday objects which most of us find most of the time on archaeological sites. Ethnographers tell us that to many pre-industrial peoples around the world, artifacts and other objects are what they call multi-valent phenomena. That is, that they are perceived not only as purely empirical forms but are often associated with other concepts, with non-empirical concepts. They have symbolic attributes as well as functional attributes, which are the things that we generally look for and attempt to describe and classify as archaeologists. Now the possibility that archaeologists might be able to discover such symbolic attributes in prehistoric cultural material became apparent to me while I was describing a small collection of artifacts from a site of the Thule culture, the prehistoric ancestors of the Inuit of Arctic Canada. And, since this is quite a distance away from Ontario, I will spend a few minutes first to give a brief description of the culture of the Thule people, the people who made these artifacts we are going to talk about.

The Thule culture originated, as far as we know, in Alaska where, between 1000 and 2000 years ago, ancestral Eskimos were developing a complex hunting technology, including techniques for open-water hunting of large sea mammals like the large baleen whale. Now about 1000 years ago, some of these people moved east across Arctic Canada, probably during a period of warmer summers and more extensive open-water conditions than at present. They came very rapidly, from what we can discern archaeologically within a very few generations, and they travelled in large skin boats which would be about 10 metres long and could hold a camp of 15 or 20 people and all their dogs and possessions. These big boats could also be used as whaling boats. We find the remains of the boats and of the technology associated with hunting scattered throughout the arctic islands, even up into the High Arctic, in areas which today are unnavigable because of sea-ice conditions. Conditions must have been a lot better up there 1000 years ago than they are right now. These people seem to have spent their summers in kayak hunting and umiak hunting of sea mammals in the open water, and in winter they established villages scattered along the coast and lived in semi-subterranean houses in these villages during the winter - primarily, we think, on food stored up during the summer. The typical Thule house is

about 5 metres square and nicely flagstone-floored, with flagstone sleeping platform and cooking places along the sides. Such houses were framed up and raftered up with whale bones. The whole frame would then be covered with 20-30 cm of turf and sod, over a layer of skins, and would have been quite a comfortable dwelling. There is excellent preservation of organic artifacts from within these houses as, when the sod roof falls in over the flagstones, perma frost rises up through the area in the following winter and literally seals the place up.

What happened to the Thule culture? We think that about 1500 or 1600 A.D., the climate cooled during what Europe calls the Little Ice Age. Whales and other large sea mammals were excluded from large areas of the Arctic through increase in the summer sea ice. The people abandoned their villages and their way of life and, instead, emphasized a couple of seasonal patterns which they had practised in the past. In the summer, they moved to the interior to fish in the river and to hunt caribou and muskox and other interior game; in the winter, they moved out on the sea ice using their dog sleds and built villages on the sea ice, primarily hunting ring seal through the ice.

These two living patterns were part of the original Thule adaptation, but were emphasized by later Inuit people at the expense of open-water hunting. During this time period, another thing happened: their technology became greatly implified, many of the artifacts which had been previously used for open water hunting were dropped from their culture, a lot of decoration was dropped, and everything became remarkably simpler over a very short period of time.

What led me to this subject was a very simple observation, but one which I had not made before and which most other people had not noticed or had not seen the possible significance of. This deals with two of the most characteristic artifacts which we recover from Thule sites: arrowheads of the kind that historic Inuit across the Arctic use for hunting caribou, and harpoon heads which in various shapes and sizes were used for hunting sea mammals from the small ring seal up to the large bowhead whale. And what I noticed was that, while the caribou antler was used exclusively for making arrowheads of this form, very few harpoon heads were made of antler; and most harpoon heads are made from ivory or from the bones of large sea mammals. Now bone and antler and ivory are three of the most useful materials for Arctic peoples to use, since they lack the hardwood available to southern peoples; and the three materials work generally as well as each other for most purposes. Antler is easier to carve and less brittle and very widely available; one might, therefore, think that antler would be the primary material from which most organic artifacts were made. Ivory, from what Inuit carvers tell me, is much more difficult to work and in most areas of the north walrus or narwhal tusk ivory is much less readily available than antler or sea mammal bone for making artifacts. And yet a lot of artifacts are made of ivory. In purely functional terms, one cannot see why people should make things of ivory if they have antler or sea mammal bone to work with.

Antler would also work for arrowheads which had end blades in them or multiple barbs, the kinds of arrowheads which were historically used for hunting bears or birds. And yet these artifacts are generally made from sea mammal bone or ivory, whereas all the caribou-hunting arrowheads are made from antler. Antler would seem to work just as well for making harpoon heads as ivory, and certainly within Thule culture areas where large sea mammals were not available and where antler was available, antler was used predominantly for making harpoon heads. So, in purely functional terms, there is no reason why one material should consistently be associated with

a certain class of weapon and another material with another class. In attempting to explain this association, we can perhaps gain a few hints by examining the materials from which other classes of Thule artifacts were manufactured. The classes of artifacts consistently associated with ivory include many component parts of the harpoon; ivory and sea mammal bone are also associated with equipment used for bird hunting; snow knives and snow probe parts are also often made from ivory. That is about all the equipment associated with men's hunting and travelling equipment. Most of the other things in Thule culture which are generally made from ivory can be classified as women's equipment and tools associated in some way with women. Some of these are sewing tools, combs and plaques, drop pendants and chains, and the characteristic bird and bird-woman artifacts used in the 19th century in a gambling game but which probably had a more esoteric significance prehistorically.

In summary, we see that ivory is associated with a limited number of artifact categories: weapons for hunting sea mammals and birds, tools associated with winter life and winter travel on the sea ice, women's sewing tools and ornaments, and the bird-woman figures. Ivory and sea mammal bone are negatively associated with the arrowheads used in hunting caribou. If these suggested associations are valid, in the absence of an obvious functional explanation, we can suggest that an explanation may be found in the symbolic attributes of these materials in the minds of the Thule people. We might postulate at least that ivory was linked symbolically by Thule craftsmen with a set of mutually-associated concepts: with sea mammals, with women, with birds and with winter life on the sea ice. Antler, the most useful alternative to ivory in Thule technology, may have been linked with a set of concepts opposed to these: with land mammals (particularly caribou), with men and with summer life on the land.

On the basis of archaeological evidence alone, a hypothesis such as this must be judged to be rather tenuous. But it receives some support from a consideration of the culture of the historic Inuit. Assuming that the historic Inuit are the direct cultural descendants over a period of three or four centuries, we should be able to search for such a set of associations in historic and modern Inuit culture. If we do find them, I think we can legitimately suggest that they derived from a Thule prototype which we can see in our archaeological observation.

Since we have no direct ethnographic statements for why certain things were used for certain objects, we have to look at less direct ways of trying to figure this out. And I think we can look at the customs and the rituals and the seasonal changes in the organization of historic Inuit life. Most ethnographers have recorded that the historic Inuit concept of their environment was centred around one major dichotomy: that between the land and the sea. The implications of this dichotomy were most thoroughly analyzed way back in 1906 in a very classic discussion of the subject. This analysis claims that the classic distinction between land on the one hand and sea on the other ran through Inuit life and thought and expressed itself most obviously in a set of practical rules maintaining the separation of land and sea animals. The meat of caribou and sea mammals could not be cooked in the same pot; in some areas, one couldn't eat caribou and sea mammals on the same day. Caribou skins could not be sewn on the sea ice or while seals and walrus were being hunted. Among a group of central Arctic people walrus skins or clothing made of walrus skins could not be taken into the interior during the summer caribou hunt. The Caribou Eskimos of the barren grounds thought that it was dangerous to work with walrus ivory or skins in the vicinity of caribou hunting stations lest the caribou be insulted by this and stay away. One would think, then, that these taboos would be

extended to weapons, on the theory that caribou might be repelled by an ivory arrowhead and wouldn't like to be killed by one, or that sea mammals would not like to be struck by a caribou antler harpoon head. From the archaeological association of antler with arrowheads and ivory and sea mammal bones with harpoon heads in the distant past, I think we can suspect that at one time these separation taboos did indeed extend to weapons or, at least, they had implicit associations with certain types of weapons and certain types of activity in the minds of prehistoric Inuit craftsmen and that perhaps as part of the general cultural simplification which occurred with the onset of the Little Ice Age, this association might have dropped out of Inuit material culture, whereas it had existed before.

In order to construct a comprehensive explanation for this selective use of ivory, we must look at the realm of historic Inuit mythology, which is a sort of charter from which were derived the practical rules of life discussed before. And in the mythology we do find such a set of associations. For example, the association of women with birds is suggested by the bird-woman figures of Thule technology and also by the widespread swan-maiden myth, a bird-woman transformation story with the concept that women can change into birds or vice versa, merely by putting on their feather coats or taking them off. An association between women and sea mammals can also be found in historic Inuit mythology: according to the most widespread Inuit myth, the ring seals, the bearded seals and the whales were all created from the finger joints of a girl who married a fulmar. Her father went to the island where she was living and took her away, whereupon the fulmar caused a storm. When the father threw the girl over the side of the boat to make the fulmar go away, she clung to the boat and so he cut off her fingertips. Her first knuckles became ring seals, the next ones bearded seals and the next ones whales, and so on. This symbolic linking of women and sea mammals in the mythology is also reflected in the hunting rituals of many Inuit groups. In groups from Alaska to Greenland, the woman must remain quietly at home and not move around too much while her husband is out hunting whale or other large sea mammals, lest these animals become active and escape. In North Alaskan ritual, the whaler's wife overtly symbolizes the whale and is symbolically harpooned on the beach as a prelude to the hunt.

On the other hand, summer life on the land has a mythological association with men. The moon, who is a deity second only in importance to the sea-woman, is a man. He lives in the sky, seen as a vast plain with herds of caribou in every direction. Some Central Arctic peoples believe that there are two afterworlds after death; in one of them, souls live with the moon spirit and hunt caribou up in the sky, in the other underneath the sea souls live with the sea woman and hunt sea mammals. This opposition of woman-sea-ivory to man-land-antler is very nicely summed up in the myth of the origin of the walrus and the caribou. According to this myth, the walrus and the caribou were created at some time after the original creation of sea mammals and they were created by an old woman who is sometimes seen as the sea woman herself. The story goes that during a period of famine, this old woman took two pieces of fat. One piece she threw into the water and it became a walrus which swam quietly away, giving birth to lots of other walrus; the other piece she threw on the land and it became a caribou which attacked her. So she knocked out its teeth and she has disliked caribou ever since. A more complex version of this myth, from Baffin Island, is perhaps closer to the original. It states that the caribou, which were created by this old woman, had in the beginning not antlers but ivory tusks, and the walrus had antlers instead of tusks. Now this arrangement was dangerous to hunters: if he went to hunt caribou,

it would chase him with its ivory tusk and stab him; if he went out in his kayak to hunt walrus, it would come up and upset his kayak with its antlers. So an old man changed these tusks and antlers to create the animals in their present form, and their present form was then less dangerous to his fellow hunters.

Now this argument should not be considered as anything like a thorough structural analysis of Inuit myth or customs, but the interpretations suggest, I think, that at least in historic Inuit times there existed a set of implicit associations and oppositions in Inuit thought, which we can present as follows: land is to sea as summer is to winter as man is to woman. And perhaps, in Thule culture at least, as antler is to ivory. If this latter member of the set of oppositions is valid, a look at the material culture of the Thule people allows us, I think, to trace this whole structured set in the minds of the culture back into the prehistoric past, at a time when people had perhaps more opportunity or more enthusiasm for their material culture than did the historic Inuit, and to people who saw in their material culture symbolic representations of their thought. This is something which, as I say, seems to have disappeared before the historic period, from late prehistoric or historic Inuit culture. But I think that, from our archaeological evidence, in conjunction with a look at more recent Inuit thought, we can suggest that this set of associations went into the past, not only as far back as Thule culture, but back much earlier - as early as 2000 years ago when people around Bering Strait, the ancestors of the Thule people, were creating these fine sea mammal hunting implements entirely of ivory and were making arrowheads out of various kinds of bone and caribou antler.

In conclusion, I think that as archaeologists it might be very useful to recognize that prehistoric cultures were not purely functional adaptive systems, that prehistoric people did not always do purely empirically functional things, and that our functional interpretations of the past can be usefully complemented by a search for symbolic associations in the artifacts which we excavate - and from the relationships between these symbolic associations and more perishable aspects of past cultures. It also makes the study of non-art objects like potsherds, old stone tools and bits of bone, a lot more interesting than otherwise.

Symbolism in Prehistoric Northwest Coast Art - George MacDonald

The coast is not as fortunate as the Arctic area where ethnographic and archaeological materials link in a continuous sequence that can be taken back at least to, say, the Thule and Dorset interface. Boas, who is the classic ethnographer of the coast, was responsible for focusing attention on the tightly-controlled use of signs in northwest coast art, particularly in his widely-read book Primitive Art. But, although he talks in terms of symbols, he is concerned mainly with the symbol level of reference: signs, that is, what features identify beaver, hawk or bear in west coast sculpture and painting. There is little concern in his works even to distinguish the use of crest art from non-crest art; nothing of the contextual use of these animal-like designs, for example.

The most thorough treatment of the question of crest and non-crest use of symbols and signs in west coast art is Margery Hoden's thesis on the Tsimshian use of crests. That thesis study began with an analysis of the Barbeau collection and notes both at the National Museum of Man and in Toronto at the Royal Ontario Museum. The Barbeau Tsimshian file is

undoubtedly the best in existence for the study of west coast Indian material culture in art, more specifically since it combines very large collections that have been made, spread throughout a number of museums with vast and detailed documentation that can be directly linked with the pieces in a re-analysis. Boas was the only professional ethnographer we can compare here, but Boas did not have the collector's instinct of Barbeau and he did not assemble nearly the collections and records relating to the material culture that Barbeau did. Those files will undoubtedly prove very valuable to us in the future, although I and many others have been very critical of Barbeau's concepts of historical developments on the northwest coast. We do owe him a great debt for his collecting and documenting of the material culture of the coast, however. One of the interesting developments, in terms of symbolic interpretation within that area of research, is the new interest in material culture among students in that area. Dissertations and theses are available or soon to be so in almost every category of northwest coast material culture. Examples include frontlets, rattles, spoons, boxes, bowls, houses, canoes, coppers, etc. Some items like shaman charms have been the subject of several recent studies. In most cases, the study consists of an exhaustive inventory, which usually is the appendix to the thesis, with the analysis of the muthological and ritual context of the piece, usually concluding with symbolic interpretations of one kind or another. Other studies are more restricted. At best, such studies begin to show a very consistent pattern to northwest coast symbolism as expressed in the material culture. Stylistic variations between different tribes or regions are explained in terms of fairly formal definitions of inversions or of purposeful contrasts, in which surface features of an artifact - for instance, its decoration - are altered by the structuralist associations that remain the same. That is, the variations from tribe to tribe are seen sometimes to be straightforward contrast. They look entirely different, but if matched with mythological information, they can be seen to function in the same way. Ones that are visually different often have the same function and ones that have a different function are often brought together visually, so that there is a conscious effort over tribal boundaries to give distinctive character to a tribal pattern vis-a-vis that of their neighbours.

One of the most fascinating observations to emerge about northwest coast art is a lack of inherent scale in style, being due to the fact that scale is virtually always cosmic. Spoons, spindle whorls, houses, canoes, costumed dancers, etc., are always represented symbolically as the universe or as one of the fundamental principles of it. Hence, the human body and its decorations involve the universe symbolically, as does a dwelling. In fact, we come to a principle of a body-house cosmos kind of paradigm, which is well described in some of the Asian religions and which seems to have a lot of validity in terms of northwest coastal peoples. Archaeologically, we get some evidence of the time depth involved in this basic concept through settlement pattern data and plans of structures where space is symbolically treated in accordance with this principle - that is, the placement of the house posts, hearths, activity areas within the structure and of the houses relative to each other. Another concept of symbolic space in northwest coast archaeology concerns the hierarchies of space as symbolic of social hierarchies. Again, settlement pattern data provide a lead. There are many other hierarchies evident in northwest coast culture wherever classifications are applied.

Animals are appropriately arranged within their cosmic zones, as are other forms of being - that is, plants, minerals, etc. Ultimately, even the cosmic zones themselves have a hierarchical set of relationships. A

classical example of animal hierarchies involves the killer whale as the chief of all beings of the sea, who are his subjects or slaves. Killer whale designs are inordinately popular in prehistoric times, as they were in the ethnographic period. There are surviving etchings on slate and other materials that go back to the time of Christ, in coastal archaeological sites. Since all animal species were viewed as being exactly like humans except for their appearance and habitat, they were viewed as having the same type of social organization with their own chiefs, commoners and slaves. The principles of tribal organization were thus considered to be universal, a concept that was expressed in symbolic terms in their art. Each species within a given environment had its chiefs, each stream had a cheaftainess of the fish who controlled the runs of fish in the stream. The shaman could look down into the streams and see the schools of fish and they appeared to the shaman as villages full of people. On the other hand, to the bears in their dens up on the mountainside, tradition has it that the villages of humans along the river appeared to them to be schools of fish. So we have a linking of imagery. These are only scraps of evidence for such concepts expressed in the archaeological record, but I personally believe that a petroglyph recently discovered beneath a thick mantle of moss on a rocky island in the middle of the first canyon on the Skeena River represents such an idea. Below the canyon, the river is too wide and turbulent to fish, but the harvest of fish begins at just about that canyon. The age of the petroglyphs is unknown but its condition and the growth of moss suggest some considerable antiquity, certainly prehistoric. The recent study of classes of ethnographic materials has revealed one very interesting concept that complements the above one: the idea of the chiefs of species commonly found throughout North America is extended even further on the northwest coast to include the more abstract concept of the chief of wealth, who is almost always a water being. Although the names vary among the tribes, the key feature of the chief of wealth is that he plays a direct role in the maintenance of social order among humans, as well as controlling their supply of food, and he even controls the kind of weather that prevails. The most important breach of social ethic - incest - brings cataclysmic retribution from this being in truly cosmic proportions: tidal waves, earthquakes, floods, landslides, volcanic eruptions. These are the things that are described in all the myths, things that result from improper marriage alliances. The core mythology of all the northwest coast tribes is preoccupied with endless variants of this basic myth; thence the endowment of great wealth on the one hand or terrible punishment on the other, by a chief of wealth type of being responding to the proper or improper observances.

This is very interesting, but how does it relate to archaeology? I think it can, usually, if we look at how and where the chief of wealth is represented and whether such occurrences can be detected archaeologically. The chief of wealth figure, according to actual informant information - mainly from the last century - is the one seen on the front of the storage chest, that big, bear-like figure whose facial proportions are huge. These were chests for the storage of wealth, and we have just such a box from a prehistoric site at Ozette in northern Washington state. The excavator in this case claims that the appropriate date for the piece is 500 years; I dispute that amount of age personally, believing that there is a very good chance this is a prehistoric piece. The chief of wealth also appears as a house front, rising from the sea in the myths; if a person out in a canoe sees a house-front rising out of the sea, he will be a very wealthy person for the rest of his life. It has also been identified independently by other individuals as the figure on dance blankets and shaman aprons and the elaborate Chilkat blankets, where it is flanked by two raven profiles

and this symbolizes the first potlach that was ever given, where the chief of wealth invited raven to the potlach. We have also come to recognize the chief of wealth in the figure of a human being in full frontal position, rather than the highly-stylized animal-like one.

Since 95% of northwest coast material was made from highly-perishable organic materials, particularly wood and bark, it is not surprising that little of the elaborately-symbolic artifacts that characterize the ethnographic period have survived in the damp climate of the coast. There are a number of possible approaches which occur to me in response to this dilemma.

We could attempt to increase the meagre sample of artifacts which possess value for symbolic interpretation by selecting certain areas of sites and changing strategies of excavation; now, excavation is taking place on the traditional sheltered type of site. The other think we could perhaps do is withhold attempts to deal with symbolic interpretations until such time as we have some real samples to deal with. Yet another approach is to locate and excavate sites which overcome the problem of the highly-perishable organic material - for example, by excavating wet sites (referring to the permanently water-saturated site). And, finally, we could concentrate some attention on analyzing the very large numbers of ethnographic specimens - of which a very high proportion are ritual in nature and are therefore symbolically quite loaded - that are preserved in the museums of the world; this would create a framework within which prehistoric artifacts can be interpreted as they are recovered. Of course, there is a lot of very basic material culture in the collections of the world that has been sadly neglected in favour of the more ritual object; the utilitarian objects from the northwest coast need thorough study, since ethnographers (with virtually no exceptions) did not bother to do a descriptive analysis of the day-to-day activity materials of coastal peoples.

Although I have attempted all of these approaches to some degree, there are limitations inherent in each one of them. The first (that is, bv excavating more) is limited by financial constraints. The second is limited by the fact that many times the manpower and finances are required to conserve the organic remains than is required to dig them up, and that becomes a bottleneck situation where conservation falls sadly behind excavation of wet sites. There is virtually a moratorium on the excavation of wet sites on the B.C. coast at this time because of the conservation problem.

*

Following Dr. Melbye's presentation and at the conclusion of the Symposium, unscheduled statements were made by two representatives of native peoples - Doug Pine and Alex Akiwenzie. The strong objection that native peoples have to the desecration of ceremonial burial grounds was pointed out to those present. Mr. Pine explained that the Indian people have fought very strongly to teach their children to retain the values of their forefathers, and that they would strongly oppose anyone who continues to dig such sites. He reminded us that for three years the Indian people have stood by and said 'no dig', that for three years they have been coming to us with their concerns. Mr. Pine asked that the door be left open for negotiations and warned that the next time a dig is undertaken and the Indian people are not negotiated with properly, someone is "going to be hurt".

*

O.A.S. POST-SYMPOSIUM BANQUET

Our banquet was held in the City Hall Grill of the Sheraton Centre, with Dr. David Pendergast of the Royal Ontario Museum as the guest speaker. Dr. Pendergast spoke on Art and Symbolism in the Central Maya Lowlands, this being the area in which he is currently at work.

A basic matter to understand as far as the workings of art and symbolism in the Maya area is concerned is that this is a part of the world which must have appeared as forbidding to the ancient Maya as it does to those who visit it now from outside. The Maya were really a witch-ridden people, long before the beginning of the Pre-Classic (ca. 500 B.C.) and on through the Classic (to about 900 A.D.) and the Post-Classic (to the Spanish conquest) periods. They saw the environment as something to be constantly dealt with, to be held off: the deities of one's surroundings, in the skies and on the ground, had to be held off in a variety of ways; otherwise, the community and, ultimately, the whole society would go under. Much of this was blind faith. Although we don't really know how the religious practitioners came into being in the first place, the power they held consisted in the ability to, seemingly, deal with the forces of the environment, to hold off the gods, to see to it that the agricultural crops came in year after year and that the community was kept in general good health. For the ancient Maya, their belief was rooted very deeply, in the sense that the bulk of the people didn't really understand anything at all about the kinds of knowledge that the priesthood held. The rulers were capable of writing, they were using the calendric system to calculate events in the future; both of these the bulk of the population did not understand and hence most of the things which the priests did were beyond the ken of the average person.

There's another side to the tropics, and that is preservation. In this area a great deal has been lost, as far as the archaeological record is concerned so one has to recognize that here - perhaps more than in some other parts of the world - the fragment of the archaeological record which we have is relatively small. But from that, there are still some things we can say about how the Maya approached the question of art and symbolism. First of all, we can say that they made no distinction at all between the two. They were a theocratic society and it may be correct to say that almost everything they did had some religious aspect to it - and this extends from the rulers to the simplest sort of person out on his land out some distance, perhaps, from the site centre. The non-perishable remains which we have cover a fair range of materials and generally speaking - the exceptions being quite late and few in number even then - all the things in which there's any major artistic effort at all have something to do with religious belief.

One of the curious things about the Maya is that implements are not embellished with any kind of motif, but rather the art is known from ceremonial objects. The range of things that one sees in Maya society which are non-ceremonial is really very small; the utilitarian things are few in number and they tend to be unembellished. Fine work in bone is extensive, often quite naturalistic, and ranges in form from human beings to monkeys; but in all cases these objects are symbolic. The discovery of such objects in a burial would indicate that the person involved was one of some importance.

We know virtually nothing about the specifics of how almost all of the objects of Maya society we discover were used. We have the objects, we can say that they were ceremonial; but to say how they were used in a ceremony

is beyond our grasp. This is one respect in which Maya society differs from some in North America; with few exceptions, we know very little about beliefs or practices of ancient Maya times. What was recorded by the Spanish concerns a society which was rather changed from that of earlier centuries, and it was a slim body of evidence in any case. So we are very often left with that standard archaeological rubric "ceremonial object".

Partly as a result of that and partly because the Maya were tremendous potters (they made a huge quantity of pottery in tremendous variety), we tend in the Maya area to depend a great deal on ceramics for determining changes over time, and it is one of the areas in which a great deal of the art focus was concentrated. In very early times - in Pre-Classic times, that is, in the century just preceding the Christian era and on into the first few years of it - vessels are generally monochrome and the degree of artistry was mostly a matter of form. That changed very drastically during the 2nd century A.D. when vessels began to be decorated in a variety of ways that included painted glyphs and the use of shades of colours within a limited palette, and also included representations of the human figure. It is the variety of forms and surface treatment that characterize the whole of this so-called Classic Period, that is the middle of the 3rd century to about the end of the 9th century of beginning of the 10th. Within the limited palette of the Classic Period, the representations of human figures with the elements of glyphic text had remained for a very long time beyond the understanding of anyone working in this part of the world. To some extent,this is still true.

There are all sorts of inscrutable characters in the Maya pantheon. We can assume that the representations on these vessels are a combination of the priests garbed as gods and the gods themselves. Though there have been a number of discussions of the deities in Maya belief, there is a very general agreement among Mayanists that we don't yet really know the identities of many of the Maya gods. Most of them are associated with the environment. It is probably that at each major Maya centre there were certain deities who were more important than others; some centres, if not all, may have had their own special god. But there remains a whole range of figures for which no real identity can be suggested.

A great number of the vessels are cylindrical and have representations of a procession of some sort painted on them. Maya pottery vessels have become almost the only way we have of getting at one area of the perishable culture of the Maya - costume - all or almost all of which has been lost. So these vessels can be appreciated first of all for what they represent generally (a ceremony with a procession of priests) and for the great range of costume which they display.

It has been recognized in recent years that in a great many cases the glyphs follow a fairly standard pattern, so that it is possible to talk about a standard text for vessels of this sort. There are deviations from it, but generally speaking one can at least see that the pattern is the same in many respects and can mark the points at which it differs from those on other vessels. In most cases, it is not possible to take the next step beyond that, that is to read the glyphs and see how they relate to the scene itself. Thus the transition from recognizing what the scene is about generally to understanding what the specific symbolism is, is one that is almost impossible to make. From the fact that scenes which differ widely in what they appear to depict may have very similar glyphs, it may be suggested that the glyph may not, in fact, describe the scene so much as describe the use to which the vessel may be put.

There are instances, however, where one can talk about the relationship between the scene on a vessel and an idea in Maya belief. The phrase used to refer to drought was "when the deer die" and it was one widely used in northern Yucatan and possibly in the central Mayan area; scenes such as those illustrating the killing of deer (and there are several instances) may therefore be taken as metaphors for drought.

In later times, pottery changed very drastically, moving away in many cases from the earlier scenes; it seems to be more decorative than symbolic, but this is hard to judge. The elaborate decoration makes it difficult to sort out any sort of symbolism. One of the things that can be noted, however, is that serpents show up very frequently on vessels from the Post-Classic period (10th century onward). The polychrome painting of earlier times disappears and almost all representations of this period are monochrome and carved. Many of the designs can only be read if they are "rolled out" and this leads one to believe that the average viewer of any of these vessels in ancient time would not have been able to interpret the symbolism either.

Although many of the vessels are finely modelled and one would think that, given the quality of representation often encountered, it would be possible to identify at least some of the deities and from that to be able to say at least a minimal amount about how the vessel might have been used in ceremonies. But, unfortunately, that is generally not true. This situation applies particularly to the Post-Classic Period. However, many were extremely brightly painted and the designs were rather frightening; we may suggest that these vessels served the same purpose as did other things in Maya society, which was to put the fear of the god in the general public.

In the centuries just before the Spanish arrived, there emerged a pattern of very large and very elaborate vessels representing deities in elaborate costume on the front of censers. In many cases, the circumstances of the discovery helps us to know something about the ceremony in which the vessels were used. Some had, for example, been taken to the top of a structure which was already in ruins and it was used in a ceremony which, presumably, had as part of it a recognition that there had been in earlier times an important structure there.

When talking of the art of the Maya and looking at the small objects, we often forget what is the major manifestation of Mayan art - the buildings. A great deal of artistic endeavour went into the planning and construction of these buildings, but these were also a major part of the symbolic nature of Maya centres, structures with a very specific purpose. They were in fact temples, but to say that is not to indicate how they were used or why they were built. Almost certainly, the main reason for the construction of buildings on Maya sites was the creation of some sort of physical pipeline between the people and the gods - that is, a place where the gods were presumed to be present, where the priests could communicate with them and control their wrath. For the Maya, it was the buildings that were the real focus, far more than the production of pottery vessels or any other range of what might be termed minor elements of the material culture. There were strictly-defined limits within which a tremendous amount of variation was possible, in these buildings. We see styles distinctive of particular sites or particular areas and this reflects, in part, the basic makeup of Maya society in which there was no central authority. Each city shared a part of the common culture, but went its own way in a number of respects. Even the centres of sites, the ways they were laid out and the arrangement of the ceremonial buildings, were symbolic and also a reflection, in a sense, of the arrangement of domestic structures. The centre of the site

was really a magnified version of what existed all around it.

One basic aspect of almost all Maya structures is that they are not one but many - sort of "layer cake" - structures. In Maya belief, buildings, like other things, had a certain life span. During this life span, they were effective as a means of linking the community with the deities; after this they had to be modified in some major way if the deities were to be kept happy. So, what was the major activity in terms of total time involved and amount of physical effort expended at all Maya centres, was for the common good. It was an offering, as were all other things. We don't know the attitude of the people towards this construction, but for most of the Classic Period and the time that preceded it to about the end of the 9th century, it is reasonable to assume a parallel between the Maya and the peoples of Medieval Europe who sang religious songs as they carried the stones for the great cathedrals being built. Presumably for the pleasure and glory of the gods, Maya structures were usually brightly coloured. In some cases the colours included red, green, pink, blue, white and black; into this was worked specular hematite, so that the buildings actually glistened in the sunlight.

Elaborate symbolism was built into May ceremonial structures. As an example, an otherwise "standard" structure features 13 doorways across its front. For every Maya, learned or not, those doorways were a symbol of the 13 principal celestial deities; so, as is true with all regions, something which actually showed none of the gods caused the observer in the plaza below to remember all of them. The numbers of steps or terraces might also contain such symbolism. There are offerings in almost all the structures, whether they are major ceremonial ones or minor ceremonial ones, or simply residential buildings. One can, of course, think of the buildings themselves and the effort that went into their construction as a kind of offering. And yet, within the buildings there are specific concrete offerings whose nature varies from building to building and from site to site. These often include chipped flints and pottery vessels, and they often lie along the primary axis of the building. Presumably, their purpose was to further ensure the pleasure of the god, so that the ceremonies carried out would be successful.

Maya work in stone extended to major monuments, such as stelae. These provide an excellent source for information on costume. For a long time, the only portions of the glyphic text on these monuments which could be read were those which embodied dates in the Maya system. Now, a good deal of the remaining text can be read as far as its general sense is concerned and we know that many of them have to do with the lineages of or events in the lives of particular rulers at various sites.

The Maya are perhaps best known of all for their work in jade. This is primarily because of the importance which was attached to jade by the Maya. Its green colour was associated with living things and so was valued. One of the associations was, curiously enough, with water; another was its association with living vegetation and this is probably where, for an agricultural people, the importance of the stone lay. One of the curiousities of Mayan jade carvings, as opposed to those which occur in other parts of the world, is that in most cases the carving is shaped to fit the particular piece of stone. What appears to have outweighed the consideration of giving a carving its "proper" finished form, was the importance of the stone itself. One did not waste this important stone. Even the small amount of wastage was saved: powder or chip was put into an offering; solid cores from the use of a hollow drill would be cut into

beads. There is also work in stone which has only a minimal amount of green in it; but such stone still had sufficient importance as a material to warrant production of very fine work. There is also mosaic work in jade, but the designs have been generally lost to us because of the perishable nature of the backing used.

The amount of humour represented in Mayan art is practically nil, just as the amount of representation of any common event in the lives of the average person is virtually non-existent. Out of this and out of all of the kinds of things one hears about the Maya, we cannot help but derive a picture of a people who were dull as to be almost painful, a people whose priests were telling them daily exactly what to do, and a people who never thought for themselves. And archaeologically, if not anthropologically, speaking one comes up with a picture of people not very human. In spite of this, I would like to think that there were, in fact, all of the human values in Maya society that we know - and that there was humour, too. It must be admitted, however, that it is very hard indeed to find in Mayan art.

*

Following Dr. Pendergast's presentation, those attending the banquet were addressed by Don MacLeod who represented Reuben Baetz, the Minister of Culture and Recreation in the Province of Ontario.

The Ministry recognizes the considerable service to archaeology that the Society has done over the years. There's no doubt that the initiative shown by the so-called private sector or community in archaeology provides a most significant basis for the life of archaeology, and we hope this will continue. A couple of observations about the OAS which might be relevant at this time: the future of archaeology in this province and elsewhere lies in certain major activities, major trends. For instance, co-operation between archaeological societies and other organizations in the heritage field is vital. I can see organized co-operation developing between archaeological societies, historical societies, local architectural conservation committees, organizations like the Ontario Underwater Council which has a major interest in underwater archaeology. I think these organizations can co-operate and support each other a great deal. And on this basis they have a much better way of communicating with government and with the professions. The organization of our own program within government reflects this. The Heritage Conservation Division is a co-ordinated ministry of archaeology, history, architecture and the administration of the resources of these disciplines. I think that, in the long run, translation of archaeological resources into usable popular products is going to carry the discipline of archaeology much further than simply the academic exercise of archaeology. I would like to emphasize that initiatives by organizations like the OAS are really the direction in which the discipline is headed. I would like to see organizations like the OAS constructed in a much more business-like fashion to meet the changing needs of today. I would like to see the OAS and organizations like it use their potential as a charitable institution to raise funds privately and corporately and by these means turn the products of research into something meaningful in both a community education way and for their own intrinsic values. In conclusion, I would like to say that we would very much welcome your continued suggestions and comments on our program and any ideas you may have.

Reported by Janet Cooper

* * * * *

THE HUDSON'S BAY POST AT NAUGHTON, ONTARIO

by

Chris Blomme

Illustrator of "The Birds of the Sudbury Region", Mr. Blomme is a technician on the staff of Laurentian University. *The author acknowledges the assistance of Mr. George Stock, Dr. Collin Young and Prof. H. E. Devereux, and Mr. J. Wolchuk, the present owner.*

A building located at Naughton, Ontario, has the reputation of being one of the oldest in the Sudbury area. It was built around 1824, as part of the Hudson's Bay Post at Whitefish Lake. The structure has been moved once and has undergone a series of minor changes. However, it is still structurally sound and has many interesting architectural features. It is the purpose of this paper to outline the history of this original Hudson's Bay Post building. In particular, a detailed description of the building and its context within the framework of the complex of buildings at the Naughton site, will be provided.

General History: The Hudson's Bay Company Post was situated originally at the western side of Whitefish Lake near a creek leading to Clear (Wakemi) Lake, two miles south of the present community of Naughton. The post was established in 1824 in a position on the present Whitefish Indian Reserve (see map 1).

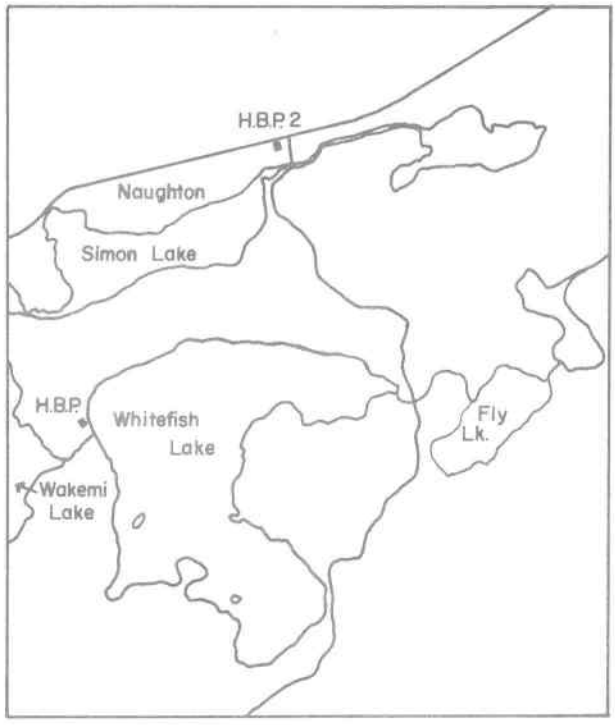
The purpose of the fur trading post was to keep competition from other traders to a minimum. The following quotation is taken from notes by G.R. Stock. He states the post was "...one of a number of posts whose primary goal was to protect the trade of Temiscaminque-Abitibi and Lake Superior from the encroachments of traders from New Market, Sandwich and Michilimakinac" (Stock, 1965). Algonkian-speaking peoples traded their furs for various supplies such as pots, pans, blankets, and clothing.

Competition for furs was intense:

> "Only the previous spring six of the Company's servants in the District, including Charles Cote and Olivier Fleurie, the only two men at Whitefish Lake, deserted and went to New Market where opposition traders had promised them better conditions." (Stock, 1965)

With the coming of the railroad, the Hudson's Bay Company Post was moved. Company policy dictated movement of posts to locations near C.P.R. rail stations for convenience in transportation. Alexander Ross, the trader in charge at the time, resolved to move the post. (H.B.C. Inspection Report, 22 June 1888). Several of the buildings at the Whitefish site were dismantled and moved the two miles north to Naughton. The move was made around 1887. Records in the Hudson's Bay Company Archives in London mention three log buildings that were moved (H.B.C. Inspection Report, 1888).

Information Supplied by the Archives: The Hudson's Bay Company Archives give the following description of the buildings at the Naughton site (H.B.C. Inspection Report, 1888). A "dwelling house", had two stories and measured



HUDSON'S BAY CO.
POST LOCATIONS

Scale:
1:50,000
MAP 1.

30 feet (9.2 m) by 25 feet (7.6 m). The building had a kitchen attached, 20 feet (6.2 m) by 17 feet (5.1 m) with a shingled roof. It is my inference that the shingles were probably of white cedar (*Thuja occidentalis*). A unit was joined onto the dwelling house, extending it by 21 feet (6.4 m) in length and 19 feet six inches (5.4 m) in width. It became the kitchen area. The front of the building faced north towards the C.P.R. station (see Fig. 1).

The second building described was a "men's house". A relatively small building measuring 15 feet (4.6 m) by 15 feet, it probably had a shingled roof. Since the primary source of building wood was white pine (*Pinus strobus*) and the store, which still stands, is made of white pine; it is probable that white pine was used for this building also.

The third building was classified as a "Store". It is the only surviving building of the post either from the Whitefish Lake or Naughton sites. The building, according to the Hudson's Bay Company records, measures 20 feet by 20 feet.

Ground Plan: A layout plan was drawn of the Naughton site by G.R. Stock (see Fig. 1). He used Hudson's Bay Company Archive Records (N.G.C. B364A/e/3:1898, fo.79) and private notes taken during his research.

This plan of the Naughton site should be mentioned in detail. There were several buildings described within its area. Moving from west to east, the following data are available.

There was a livestock compound, picket fenced, measuring 93 feet (28.4 m) by 210 feet (64.2 m). The compound had a stable in the south-eastern corner. The stable measuring 12 feet (3.6 m) by 14 feet (4.2 m) was situated in the north-eastern corner of the compound. The shorter side faced north.

Reference is made to a partitioned building between the previously described small building and a dwelling house. It measure 31 feet (9.3 m) by 10 feet (3 m). On the east side of the dwelling house there was (and still is) a root cellar 19 feet by 20 feet. It was dug into the hillside facing north, and constructed with railway ties stationed vertically along its walls.

Moving east along the layout plan, the store is located next. It measures 19 feet by 21 feet. However, the Hudson's Bay Company Archives describe it as 20 feet by 20 feet. More recently than 1887, an extension was added to the building measuring 33 feet (10 m) long by 16 feet (5.3 m) east. Lack of measuring tools and possible incompetent measurers led to discrepancies.

The last building mentioned in the layout plan was the men's house. It measured 13 feet (4.3 m) by 16 feet (Stock, 1965). This is in contrast with the Hudson's Bay Company Archive records of 15 feet by 15 feet.

Since the store is the only surviving log building, a detailed description of its structure is appropriate. Fire is a constant threat to this building. However, present occupants of the store are slowly repairing it as authentically as circumstances permit.

The Store: The structure will be dealt with in terms of its first move to the Naughton site in 1887. A brief description of later changes will be mentioned also.

When the store was moved from Whitefish Lake to the railway at Naughton, the building was totally dismantled. The loose timbers necessitated the use of a marking scheme. The logs were numbered with a series of single stroke marks made with an axe or knife and sometimes preceded by a triangle

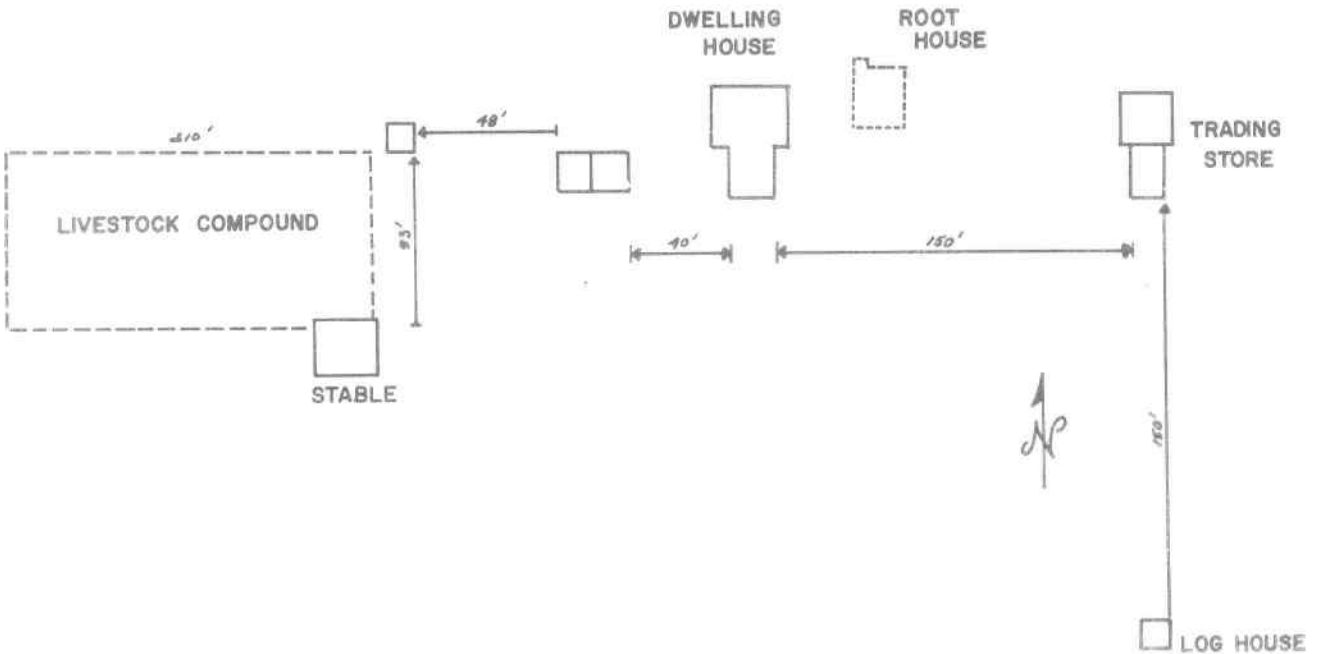


FIGURE 1. LAYOUT PLAN, NAUGHTON

symbol. It should be pointed out that Roman numerals were not used, as the number eight, for example, has eight single strokes.

It is my belief that the building must have been dismantled from top to bottom for obvious reasons: base logs would have been last to be removed and yet first needed for reconstruction. All of the numbers on the west wall follow a sequence with the lower logs having the lower numbers. However, there are no numbers present on the upper four logs on the east side and the upper three logs on the west side. These logs do not appear to be later additions. I infer that they could have been turned around, thus having the numbers on the inside or gainst the top or bottom log.

All numbers except number three on the west wall vary from the east wall in that they lack the triangle symbol in front of the numbered symbols. On the west wall, the following numbers are observable: logs three (III), four (IIII), no external symbols for five, logs six (IIIIII), seven (IIIIIII), and eight (IIIIIIII). Log six was split in two, probably at Whitefish Lake, since the upper split portion is marked "M II". I can only infer from this mark that it told the builder it came from log six. Fast stroke marking may have made the first four stroke marks look like an "M". If one added the individual strokes, excluding overlaps, we could see the sum of six.

On the east wall, the numbers two (II), through eight (IIIIIIII) are discernible, with log eight being at ground level. It should be noted that the numbers are difficult to discern because they are weathered with age.

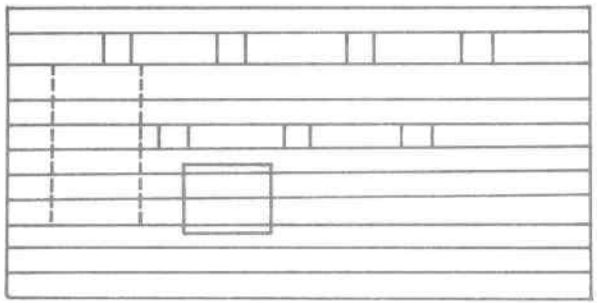
Measurements I took on January 12, 1975, indicate the store to be 18 feet seven inches (5.7 m) wide. Measurement discrepancies also are found between the Hudson's Bay Company Archives and the layout plan (Ref. H.B. Co. B364/e/3:1898, fo79) as drawn by Stock in February 1965. Measurements, however, do not vary much.

On the east wall, as described earlier, eleven logs can be counted before the roof border and rafters are reached. Counting three logs up from the base, an old window port can be identified. It is situated seven feet in from the south corner and two feet up from ground level. It is now plugged with three short horizontal logs which are not aligned with the main beams. The window measures three feet four inches wide by two feet two inches high. Each wall log averages about one foot wide. Between each log, cement has been applied, the filled gaps at most being one inch wide.

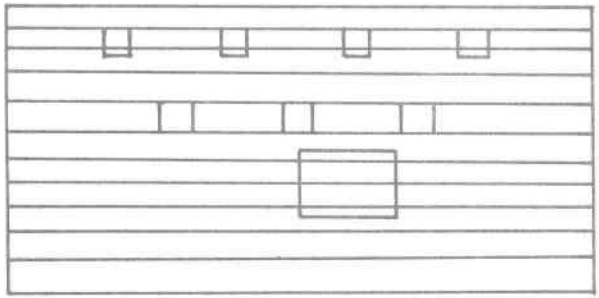
The last outstanding feature of this wall consists of two rows of slots (see Fig. 2). Four small slots approximately six inches by six inches are spaced every four feet (edge to edge) in log ten. In log seven (counting from the bottom) three slots are symmetrically spaced four feet from inside edge to inside edge, with the first and last slots measuring six feet from the wall corners. A window which was cut into the wall in more recent years has eliminated the third slot closest to the south wall.

The purpose of the slots in log seven is believed to be racks used for trading supplies such as traps. Those slots in log ten may be supports for the floor of the second storey.

If one looks to the west wall, it will be observed that the slots are similarly placed in logs seven and ten. The window, however, is slightly closer to the south face, when compared to the east wall window. It is six feet three inches from the corner and similar in size to the east face window. All ports and windows are sealed with logs of similar age and weathering. The logs bordering all windows are rounded-off by axe or



EAST SIDE



WEST SIDE

ORTHOGRAPHIC VIEW OF HUDSON'S BAY POST STORE

NORTH FACE

FIGURE 2. STORE: SCALE ONE INCH = FIVE FEET

hatchet cuts, thus leaving no sharp edges.

The front or north face is the most interesting. It has a door measuring two feet 11 inches (88.9 cm) and a total height (including transom) of seven feet two inches (2.2 m). There are two windows on each side of the door, the windows measuring five feet one inch (1.6 m) by four feet two inches (1.2 m). There is also one window three feet one inch (0.9 m) by four and one half inches directly above the door. The windows in from the wall corner are five feet one inch wide and six inches from the door. The two windows next to the dooer are similarly designed. Each has sixteen separately framed panes measuring fourteen inches (35.5 cm) by ten inches (25.4 cm). However, the individual window panes in the window, above the door, measure 7.5 inches (19.1 cm).by eight and one half inches (21.6 cm). The window above the door has 20 panes instead of 16.

The roof is angled at 85 degrees. It has been shingled with tiles of a recent type. Some of the old tiles have been left on the roof by the owner. He plans to investigate the original covering of the old roof more closely at a later time. In 1887, shingles were made quite often of bark or wood. In the case of the store, White Cedar or Balsam Fir (*Abies balsamea*) was probably used.

The chimney is constructed of cement and cobbles. It does not have an external base and protrudes directly through the roof. The hearth lies within the building. The chimney is located on the west wall almost in the centre.

Conclusion: It appears that the store followed a traditional style of construction. Since it is the only building now standing and could be destroyed by fire, it is important that its structure and history be documented as fully as possible. Although it has undergone a series of changes since its removal from the Whitefish Lake Site, its basic structure has survived over one hundred and fifty years.

Bibliography: Notes on the Whitefish Lake Post supplied by the Hudson's Bay Company Archives, London, England, by kind permission of "The Governor and Company of Adventurers of England Trading into Hudson's Bay" 1963. Maps and notes "Whitefish Lake Post (New) 1887-1896, Naughton Ontario", by G.R. Stock, Historian, Falconbridge Nickel Mines Limited.

Stock, G.R. (1964), Hudson's Bay Company: General Situation in the Lake Huron-Georgian Bay Region (1821-1869), unpublished report.

Wolchuk, J., personal communication, 1975.

* * * * *

ISLAND PALACE WAS DESTROYED BY WAR

From The Sunday Times

The discovery of a 13th century B.C. Mycenean palace on Paros Island, in the Aegean Sea, has for the first time provided evidence of such an ancient palatial site being destroyed by war, Dr. Demetrius Schilardi, head of the excavating team, said.

The destruction of the site by unknown invaders occurred at the turn of the 13th to 12th century B.C., when other Mycenean sites were ravaged on the Greek mainland. This was the first time, however, that archaeologists had been able to study remains "illustrating the tragic conditions under which life ended on a palatial site".

* * * * *

AN O.A.S. MINI-COURSE ON FAUNAL ANALYSIS....

Starting the week of January 8th, 1979, a 10-week course "Introduction to Faunal Analysis" provides O.A.S. members with an opportunity to learn something about the art of analyzing faunal remains from archaeological sites.

Steve Thomas will be directing this course with the assistance of Jim Burns, and it is scheduled to be held in the Faunal Osteology Lab at the University of Toronto (St. George campus) each Tuesday evening beginning on January 9th.

Topics to be covered during the period of 10 weeks include: recognition of bones of various zoological classes; significant archaeological species; analysis by minimum number of individuals, meat yield and calories supplied; seasonal indicators; alteration of bones by human and non-human agencies; palaeopathology; palaeo-ecology from faunal data; ethnography and historic records; limitations of bone identifications.

Those members interested in taking this course should contact Steve Thomas by calling the Faunal Osteology Lab at 978-5260. Limitations of space will mean that enrolment must be accepted on a first-come basis. Cost to participants will be minimal and will be based on the expense of the various hand-outs supplied during the course.

* * * * *

NEW BOOKS.....

Smithsonian Institution Releases Ontario Volume

The Smithsonian Institution has now made available Volume 15, "Northeast", in its 20-volume set "Handbook of North American Indians", at a price of U.S.$18.13.

Containing 940 pages, an 83-page bibliography, 490 illustrations, and 73 chapters by 54 authorities covering more than 75 tribes, this volume is the second released of a proposed 20-volume encyclopaedia summarizing current (1972) knowledge about all native North American peoples. The four main sections are: General Prehistory; Coastal Region; Saint Lawrence Region; Great-Lakes Riverine Region.

In the Saint Lawrence Lowlands Region section are papers of most immediate interest to Ontario archaeologists. These cover the Iroquois culture, prehistory, languages, contact with Europeans, the St. Lawrence Iroquois, Susquehannock, Huron, Huron of Lorette, Petun, Wyandot, Neutral and Wenro, Erie, and the Nations of the Iroquois League.

The Volume Editor is Dr. Bruce G. Trigger, a much respected OAS member, who has also contributed several of the articles. Other OAS members who have contributed include Dr. Wm. E. Engelbrecht, Charles Garrad, Dr. Conrad Heidenreich, Dr. James F. Pendergast. All concerned are to be congratulated on their product.

Volume 15 "Northeast" can be ordered from: Superintendent of Documents
U.S. Govt. Printing Office
Washington, D.C. 20402, U.S.A.

Cheques should be made payable to: "Superintendent of Documents".

* * * * *

THE DAVID BOYLE SCHOLARSHIP FOR ARCHAEOLOGY

The Ontario Heritage Foundation has established the David Boyle Scholarship for Archaeology in Ontario, to commemorate the remarkable contributions of a creative Canadian scholar and to encourage and stimulate creative research in Ontario archaeological studies. The scholarship of $10,000 is offered annually.

Conditions of Award

1. The David Boyle award will be made on the basis of the candidate's scholarly record and other relevant documentation. Particular consideration will be given to innovative and thought-provoking proposals. The proposal should be restricted to archaeology in Ontario.

2. The award is at the discretion of the Ontario Heritage Foundations. If there are no suitable candidates in any particular year, the Foundation reserves the right not to make the award.

3. The candidate must be willing to attend a personal interview with the Committee of Selection if such an interview is required. Candidates will be reimbursed for normal travel expenses.

4. The award must be accepted within the year for which it is given.

5. The Ontario Heritage Foundation holds publication rights to all manuscripts produced with, or as a result of, scholarship funding.

Application Procedure

1. Before December 31 each year, the applicant must submit - or arrange to have submitted - these documents:

a) One complete copy of the prescribed form of application available from the Foundation.

b) One copy of a current resume.

c) Letters of recommendation from two references.

The applicant will outline, in fewer than 500 words, how it is proposed to use the funds provided by the Scholarship.

2. Applications and all other documents are to be submitted to: Ontario Heritage Foundation, 7th Floor, 77 Bloor Street West, Toronto, Ontario M7A 2R9

Dr. Boyle, who was a native of Greenock, Scotland, emigrated to Canada as a youth in 1856. He became, in turn, an apprentice blacksmith, teacher, school principal, book merchant and museum superintendent. As first secretary of the Ontario Historical Society, 1898-1907, Boyle began the acquisition of valuable archival material, but it was his extensive collection of pre-historical artifacts which brought him wide recognition. This material formed the nucleus of the collection of the old Provincial Museum, the forerunner of the Royal Ontario Museum. Dr. Boyle made an outstanding contribution to archaeology in Ontario and the Foundation through its David Boyle Scholarship for Archaeology is proud to carry on the spirit and tradition of this great pioneer....

* * * * *

* * * * *

SITUATIONS VACANT....

Research Archaeologist: The Department of Museums and Indian Archaeology requires a person to undertake the detailed computerized analysis, interpretation and report preparation on selected classes of artifacts recovered from the 1975 and 1978 rescue excavations at the Draper site.

Employment guaranteed Jan. 1 to Mar. 31, 1979 - could be extended to June 30, 1980 pending awarding of grant.

The successful candidate will be a Ph.D. or a Ph.D. candidate in Anthropology with a specialization in Archaeology. A good knowledge of Ontario preshistory and familiarity with processing and analysis of Archaeological data using a computer is highly desirable.

Salary range minimum $12,610.

Submit complete resumes to: C. Patton, Personnel Department, The University of Western Ontario, London, Ontario N6A 5B8.

Senior Professor of Classical Archaeology: The Faculty of Arts and Sciences of the University of Pennsylvania expects to appoint a Senior Pr fessor of Classical Archeology, who will also be a curator in the Mediterranean section of the University Museum. Applicants should have extensive research experience, including the conduct and publication of major excavations. No particular area or period of speciaiization within classical archeology is being sought, but only candidates of outstanding competence in Field Archeology will be considered. Salary negotiable, full participation in health and retirement benefits.

It is hoped that the successful applicant could take up his or her appointment on 1 July, 1979. Applications, enclosing Curriculum Vitae, should be sent to Professor Martin Biddle, Director, University Museum, University of Pennsylvania, Philadelphia, Pa. 19104, no later than January 1, 1979.

* * * * *

MEMBERSHIP RENEWALS.....

Please check your membership card to see if your subscription is due on January 1st next. If it says only "1978", it is.

Please send your dues promptly to save the trouble of mailing reminder cards. New scales approved at the November Meeting are as follows:

Active: $8.00 Family: $10.00 Institutional: $20.00 Life: $200.00

These rates apply to all memberships expiring on or after December 31st, 1978.

Chris Kirby
Treasurer

* * * * *

The Ontario Archaeological Society (Inc.)

O.A.S. CHAPTERS

OTTAWA CHAPTER

EXECUTIVE:	President - David L. Keenlyside Vice-President - Clyde C. Kennedy Secretary-Treasurer - Iain C. Walker Past President - Gordon D. Watson
NEWSLETTER:	THE OTTAWA ARCHAEOLOGIST Editor, Clyde Kennedy
MEETINGS:	Usually at 8:00 p.m. on the second Wednesday of each month, excluding June, July and August, at the Canadian War Museum, 330 Sussex Drive, Ottawa
CHAPTER FEES:	$5 (Students $3 Family $8)
MEMBERS:	Approximately 35-40
CORRESPONDENCE:	c/o David L. Keenlyside, Archaeological Survey of Canada, National Museum of Man, Ottawa, Ontario K1A 0M8

LONDON CHAPTER

EXECUTIVE:	President - Charles Nixon Vice-President - Norah McWilliam Secretary/Treasurer - George Connoy
NEWSLETTER:	KEWA Editor - Bill Fox
MEETINGS:	Usually at 8:00 p.m. on the second Thursday of each month, excluding June, July and August, in the Talbot College Lounge (Room 344), University of Western Ontario
CHAPTER FEES:	$4.
MEMBERS:	Approximately 40-50
CORRESPONDENCE:	c/o George Connoy, 762 Elm Street, St.Thomas, Ont. N5R 1L4

SIMCOE COUNTY CHAPTER

EXECUTIVE:	President - Delmar Kelly Vice-President - Doug Gaukroger Treasurer - Jim Nicholson Recording Secretary - Gerry Allaby Corresponding Secretary - Jamie Hunter
MEETINGS:	Usually at 8:00 p.m. on the second Wednesday of each month, excluding June, July and August, at the Simcoe County Museum, Highway 26, Barrie, Ontario
CHAPTER FEES:	$5.
MEMBERS:	Approximately 25
CORRESPONDENCE:	c/o Jamie Hunter, 818 King St. S., Midland, Ontario L4R 4K3

WINDSOR CHAPTER

EXECUTIVE:	President - Helen Gawadzyn Vice-President - Garth Rumble Secretary/Treasurer - Peter Reid
MEETINGS:	Usually at 7:30 p.m. on the second Tuesday of each month, excluding June, July and August, at the Windsor Public Library, 850 Oullette Avenue, Windsor, Ontario
CHAPTER FEES:	$3.
MEMBERS:	Approximately 35-40
CORRESPONDENCE:	c/o Peter Reid, Dept. of Sociology and Anthropology, University of Windsor, Windsor, Ontario N9B 3P4

The Ontario Archaeological Society (Inc.)

EXECUTIVE 1978

PRESIDENT:
Dr. Peter G. Ramsden
R.R. #1, Alton, Ont.
LON 1A0 (519)941-0313

VICE-PRESIDENT:
Mr. W.A. (Bill) Fox
420 Tecumseh Ave.E.
London, Ont. N6C 1T5

PAST PRESIDENT:
Dr. Howard G. Savage
94 Glenview Avenue
Toronto, Ont. M4R 1P9
(416) 485-1259

TREASURER:
Ms. Christine Kirby
29 Tournament Drive
Willowdale, Ont. M2P 1K1
(416) 223-7296

CORRESPONDING SECRETARY:
--- to be elected ---

RECORDING SECRETARY:
Ms. Norma Knowlton
1 Homewood Ave. #309
Toronto, Ont.M4Y 2J8
(416) 924-7272

SUB-COMMITTEES 1978

ARCH NOTES COMMITTEE:
Chairman: Michael M.Kirby
29 Tournament Drive
Willowdale, Ont. M2P 1K1
(416) 223-7296
Members:
Ms. Janet Cooper
Ms. Christine Kirby

CONSTITUTIONAL COMMITTEE:
Chairman: Bill Fox
Members: Peter Ramsden
Clyde Kennedy
James Hunter
Advisors: Seth Cook
Frank Mee

MEMBERSHIP COMMITTEE:
Chairman: Christine Kirby
Secretary:
Ms. Christine Caroppo
1 Crown Hill Pl. #107
Toronto, Ont. M8Y 4C1
Member: Janet Cooper

APPOINTED MEMBERS 1978

EDITOR-ONTARIO ARCHAEOLOGY:
Dr. Richard B. Johnston
Dept. of Anthropology
Trent University
Peterborough, Ontario

PROGRAM & SOCIAL CONVEYOR:
Dr. Jock H. McAndrews
Royal Ontario Museum
100 Queen's Park
Toronto, Ontario

AUDITOR:
Mr. J. Murray Corbett
16 Tregellis Rd.
Downsview, Ontario

LIBRARIAN:
Mr. Charles Garrad
103 Anndale Drive
Willowdale, Ont.M2N 2K3
(416) 223-2752

INTER-SOCIETY LIAISON:
Ms. Patsy Cook
128 Hogarth Avenue
Toronto, Ont. M4K 1K4
(416) 466-5484

PRESS OFFICER:
Ms. Janet Cooper
213 Davenport Rd.#147
Toronto, Ont. M5R 1J5
(416) 962-7025

CURATRIX:
Dr. Martha P. Latta
100 Northwood Drive
Willowdale, Ontario

1978 SYMPOSIUM COMMITTEE:
Christine Caroppo
Janet Cooper
Bill Fox
Christine Kirby
Peter Ramsden

PUBLICATION: Scientific Journal - ONTARIO ARCHAEOLOGY;
Newsletter - ARCH NOTES

MEETINGS: Usually at 8:00 p.m. on the third Wednesday of each month, excluding June, July and August, at the McLaughlin Planetarium, Royal Ontario Museum, Queen's Park, Toronto

FEES: Per annum: Individual $6; Family $8; Institutional/Corporate $10; Life $100. Chapter fees extra.

MEMBERS: Approximately 500