T-1628-78

IN THE FEDERAL COURT OF CANADA

(TRIAL DIVISION)

BETWEEN:

THE HAMLET OF BAKER LAKE, et al.

Plaintiffs

- and -

THE MINISTER OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT, et al.

Defendants

* * *

Held before The Honourable Mr. Justice P.M. Mahoney, at 330 University Avenue, 8th Floor, Toronto, Ontario, May 28th - 31st and June 1st, 1979, inclusive.

* * *

APPEARANCES:

A.E. Golden, Esq., D. Estrin, Esq.,	for the Plaintiffs
L.P. Chambers, Esq., D.T. Sgayias, Esq.,	for the Minister of Indian Affairs and Northern Development
W.C. Graham, Esq., Q.C., R.W. Cosman, Esq., (As agent for C.T. Thomson)	for Essex Minerals Company Ltd.
W.C. Graham, Esq., Q.C., R.W. Cosman, Esq.,	for Pan Ocean Oil Limited, Cominco Ltd., and Western Mines Ltd.
T.G. Heintzman, Esq., Ms. Marvyn K. Koenigsberg,	for Urangesellschaft Canada Ltd. and Noranda Exploration Company Ltd.

VOLUME IX

Wednesday, May 30, 1979

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---Upon resuming at 9:30, May 30th, 1979

THE COURT: Before you start, Mr. Golden, I suppose in view of your indication that your case might finish on Thursday I should find out too on the other side I look to for Friday's witnesses and so on. Have you thought in terms of who is going to lead the evidence for the Defendant?

MR. CHAMBERS: My Lord, we have reasonable agreement amongst ourselves. The government is prepared to start, if necessary.

THE COURT: On Friday?

MR. CHAMBERS: Yes.

THE COURT: Fine. It is just so we do not find ourselves on Friday without having anything to do. Fine, Mr. Chambers.

Okay, Mr. Golden?

MR. GOLDEN: My Lord, I should be able to perhaps give a more definite indication by late this afternoon.

THE COURT: I know we are going to be here well into next week. It is just in order to avoid any hiatus.

MR. GOLDEN: My first witness this morning, My Lord, is Dr. Elmer Harp.

DR. ELMER HARP, JR., TOWN OF HANOVER, IN THE STATE OF NEW HAMPSHIRE, UNITED STATES OF AMERICA: SWORN

EXAMINATION IN CHIEF

THE COURT REGISTRAR: State your name, your address and your occupation for the court, please.

THE WITNESS: My name is Elmer Harp, Jr. My home is in the Town of Hanover, in the State of New Hampshire, U.S.A., post office box 856. I am a professor of anthropology, Emeritus in Hanover.

THE COURT: You may sit down, Dr., if you wish.

BY MR. GOLDEN:

Q. I wonder if you have your papers with you. There is a report you indicated you had?

A. No, I am sorry, sir, I left them back on my chair -- the second one in. That was the 1960 paper.

Q. I have a few things to do, but I want you to have available the Polar Gas Study -- the references from that.

A. I'm sorry, I don't have that one. I recall the general notation of these.

Q. We have a copy of it and we can provide it at the right time.

Dr. Harp, you have sworn an Affidavit which has been filed in this action

on the 26th of April, 1979?

A. Yes.

Q. Is that correct?

A. Yes.

MR. GOLDEN: My Lord, may we take the Affidavit as having been read?

THE COURT: Unless there is any objection, okay, the Affidavit is taken as read.

MR. GOLDEN: Thank you, My Lord.

AFFIDAVIT

I, DOCTOR ELMER HARP, JR., Professor, of the town of Hanover, in the State of New Hampshire, one of the United States of America, make oath and say as follows:

I presently hold the position of Professor Emeritus at Dartmouth College, in the town of Hanover, New Hampshire.

Now shown to me and marked as Exhibit "A" to this my Affidavit is a true copy of my curriculum vitae.

I am the author of a study entitled The Archaeology of the Lower and Middle Thelon, Northwest Territories. This paper was published as Technical Paper #8 by the Arctic Institute of North America in December of 1961.

During the summer of 1958 I made an archaeological reconnaisance of the Thelon River country west of Baker Lake in the Northwest Territories. This was the first such exploration of its kind in that area.

Now shown to me and marked as Exhibit "B" to this my Affidavit is a true copy of figure one from that study which is a map showing the area of the survey that I undertook.

During the two months that myself and a colleague undertook this archaeological investigation, we discovered 42 sites of archaeological significance and further investigated 4 sites which had been previously known. The distribution of the sites are as follows:

10 at the western end of Baker Lake;
12 on Schultz Lake;
9 around Aberdeen Lake;
13 on Beverley Lake; and
2 on Grant Lake.

Now shown to me and marked as Exhibit "C" to this my Affidavit is a true copy of figure two from that study which shows the detailed locations of these sites.

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A total of 734 specimens were collected and the entire collection has now been returned for permanent keeping to the National Museum of Canada in Ottawa.

An analysis of these sites and of these artifacts enables an Archaeologist to draw conclusions regarding the historical use of these areas.

Approximately one-half of the total number of sites discovered can be attributed to more or less lengthy occupation. The occupation sites were most readily identified by the presence of tent rings or other dwelling remains. No essential pattern was discernible in their general distribution, other than constant association with the caribou crossings, and there was no noticeable regularity in their orientation or exposure. A few were situated directly at crossings, apparently in the path of approaching herds, while others were discovered at lateral distances up to several miles from a crossing.

Such variations in location, with respect to present day crossings, may be an indication that fording places have shifted from time to time throughout the period of human occupation.

The relatively large inventory of implement types including cutting and piercing tools, as well as scrapers, indicate that the people camping at these crossings lived a nomadic subsistence hunting life style.

A large number of the balance of the sites can be identified as "lookout -- workshop sites". Frequently the sites were on top of eskers or drumlins and the chief function of these sites appears to have been as a station for game watching. The tremendous quantities of quartzite chips and artifacts littering the surface of some of them indicates that the hunters put long hours of watching and waiting to good use.

Given the evidence of the site locations, and in the absence of contravening facts, I believe we may extend the importance of the caribou backward in time to encompass the entire period of man's habitation on the Barren Grounds in the postglacial era.

I make this Affidavit pursuant to Rule 482 of the Federal Court Act, and for no other or improper purpose.

ELMER HARP, JR.: Curriculum Vitae

Personal: Born 13 April 1913, Cleveland, Ohio

Married, four children.

Citizen U.S.A.

Education: Harvard College, B.S. 1938, Cum Laude, Anthropology

Harvard University, M.A. 1947, Anthropology

Harvard University, Ph.D., 1953, Anthropology

Harvard University, 1951-53, Russian Program

Positions:

1939-43 Methods Engineer, Lincoln Electric Co., Cleveland

1943-46 U.S.N.R., Line Officer, Commanding Officer of Motor Torpedo Boats, Mediterranean and Southwest Pacific theaters.

1947-52 Curator of Anthropology, Dartmouth College Museum

1951-57 Assistant Professor of Anthropology, Dartmouth

1957-78 Professor of Anthropology, Dartmouth College

1959-60 Senior Research Fellow, Fulbright Program, Denmark

1960-72 Chairman, Department of Antropology, Dartmouth

1961-68 Director, Dartmouth College Museum

1975-76 Chairman, Department of Anthropology, Dartmouth

1978- Professor of Anthropology, Emeritus, Dartmouth

1978- Visiting Professor of Anthropology, Dartmouth

Field Experience in Archaeological Research:

1947 Southeastern Massachusetts, assisting Frederick Johnson, R.S. Peabody Foundation

1948 Yukon Territory, assisting Frederick Johnson

1949 Labrador and Newfoundland

1950 Newfoundland

1955 Coronation Gulf area, N.W.T.

1958 Keewatin Barren Grounds, N.W.T.

1961 Labrador and Newfoundland

1962 Newfoundland

1963 Newfoundland

1967 Richmond Gulf area, P.Q.

1970 East coast of Hudson Bay, P.Q.

1971 Alaska

1974 Belcher Islands, N.W.T.

1975 Belcher Islands, N.W.T.

1977 Cornwallis, Karluk, and Bathurst Islands, N.W.T.

Grants and Awards:

1949 Arctic Institute of North America, grant for field research

Grants and Awards continued:

1950 A.I.N.A. grant for continued field research

1955 American Philosophical Society grant for research in Coronation Gulf, NWT

1958 A.I.N.A. grant for research in Keewatin Barren Grounds, NWT

1961 A.I.N.A. grant for research in Newfoundland and Labrador

1962-63 NSF Grant G-22029 for research in Port aux Choix, Newfoundland

1967 NSF Grant GS-1216 for research on east coast of Hudson Bay

1970 NSF Grant GS-2915 to continue above research

1974 NSF Grant GS-42889 for research in the Belcher Islands, Hudson Bay, NWT

1975 NSF Grant SOC74-13294 A01 to continue above research

Scientific Societies:

American Anthropological Association, Fellow

American Society of Photogrammetry

Arctic Institute of North America, Fellow

Member, Research Committee, 1961-1966

Chairman, Arctic Archaeology Advisory Committee, 1970--

Current Anthropology, Associate

Northeastern Anthropological Association

President, 1969-1970

Society for American Archaeology

Assistant Editor for Arctic Research, 1956-1960

Chairman, Nominating Committee, 1971-1972

Biographical Listings:

American Men of Science, as of 9th edition

Who's Who in America, as of vol. 36

Some Relevant Publications:

1951 "An Archaeological Survey in the Strait of Belle Isle Area," American Antiquity, vol. 16:203-220.

1953 "New World Affinities of Cape Dorset Culture," Anthropological Papers of the University of Alaska, 1(2):37-54.

1957 "Prehistoric Hunters of Newfoundland-Labrador and their Relationship to New England Archaeology." Bulletin of the Massachusetts Archaeological Society, XVIII(4):65-68.

1958 "Prehistory in the Dismal Lake Area, N.W.T., Canada," Arctic, 11(4):218-249.

1959 "The Moffatt Archaeological Collection from the Dubawnt Country, Canada," American Antiquity, 24(4):412-422.

1961 The Archaeology of the Lower and Middle Thelon, Northwest Territories. Technical Paper No. 8, Arctic Institute of North America. Montreal.

1962 "The Culture History of the Central Barren Grounds." In Prehistoric Cultural Relations Between the Arctic and Temperate Zones of North America, J.M. Campbell, editor, Technical Paper No. 11: 69-75, Arctic Institute of North America. Montreal.

1963a "Archaeological Evidence Bearing on the Origin of the Caribou Eskimos." Actes of the VIth International Congress of Anthropological and Ethnological Sciences, Paris, 1960. Tome II, vol. 1:409-413.

1963b "Evidence of Boreal Archaic Culture in Southern Labrador and Newfoundland," National Museum of Canada, Bulletin No. 193, Contributions to Anthropology 1961-62, Part I, Paper No. 5: 184-261. Ottawa.

1964a The Cultural Affinities of the Newfoundland Dorset Eskimos. National Museum of Canada, Bulletin 200, Anthropological Series No. 67. Ottawa.

1964b "World Arctic Archaeology." In The Unbelievable Land, I. Norman Smith, editor, pp. 49-54. Department of Northern Affairs and National Resources and the Northern Service of the Canadian

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Broadcasting Corporation. Ottawa.

1966 "Anthropology and Remote Sensing." Proceedings of the 4th Symposium on Remote Sensing of Environment. University of Michigan, Ann Arbor.

1968a (with David R. Hughes) "Five Prehistoric Burials from Port aux Choix, Newfoundland." Polar Notes, vol. VIII:1-47. Hanover.

1968b "Anthropological Interpretation from Color." In Manual of Color Aerial Photography, J. T. Smith, editor, American Society of Photogrammetry. Falls Church.

1969 "Optimum Scales and Emulsions in Air Photo Archaeology." Proceedings of the VIIIth International Congress of Anthropological and Ethnological Sciences, vol. III:1963-65. Tokyo.

1970a "The Prehistoric Indian and Eskimo Cultures of Labrador and Newfoundland." Proceedings of the VIIth International Congress of Anthropological and Ethnological Sciences, vol. X:295-99. Moscow.

1970b "Late Dorset Eskimo Art from Newfoundland." Folk, vol. 11-12: 109-124. Copenhagen.

1974a "Threshold Indicators of Culture in Air Photo Archaeology: A Case Study in the Arctic." In Aerial Photography in Anthropological Field Research. E.Z. Vogt, editor. Harvard University Press. Cambridge.

1974b "Aerial Photography for the Arctic Archaeologist." In Aerial Remote Sensing Techniques in Archaeology, T.R. Lyons and R. K. Hitchcock, editors. Prescott College Press. Prescott.

1975a "A Late Dorset Copper Amulet from Southeastern Hudson Bay." Folk, vol. 17. Copenhagen.

1975b "The Objectives of Archaeological Photography." In Photography in Archaeological Research, E. Harp, Jr., editor. School of American Research Advanced Seminar Series. University of New Mexico Press. Albuquerque.

1975c "Basic Considerations in the Use of Aerial Photography." In Photography in Archaeological Research. E. Harp, Jr., editor. School of American Research Advanced Seminar Series. University of New Mexico

Press. Albuquerque.

1976. "Dorset Eskimo Settlement Patterns in Newfoundland and Southeastern Hudson Bay." In Eastern Arctic Prehistory, Moreau Maxwell, ed., Memoirs of the Society for American Archaeology, No. 31.

1978 "Pioneer Cultures of the Subartic and the Arctic." In Ancient Native Americans, Jesse D. Jennings, ed., W.H. Freeman and Company, San Francisco.

In Press:

"Arctic Archaeology in the Post World War II Period." In Handbook of North American Indians, vol. V, Arctic, David J. Damas, ed., Smithsonian Institution, Washington.

Recent Consulting Experience:

1969-79:

- Field surveillance of the trans-Alaska oil pipeline, for Bureau of Land Management, U.S. Department of Interior.
- Polar Gas Project: field reconnaissance in Arctic Archipelago, N.W.T.
- Cultural Resources Evaluation of the

White Mountain National Forest, for U.S. Forest Service.

- Ohio River Bank Erosion Study, for U.S. Army Corps of Engineers.
- Several reconnaissance surveys in New Hampshire and Vermont for private engineering companies, the city of Manchester, N.H., and the town of Winooski, Vt.

BY MR. GOLDEN:

Q. Before we commence with the Affidavit itself -- perhaps dealing with it briefly, do you have a copy?

A. I do.

Q. I have produced an acetate overlay on a map which concerns the Baker Lake area. On that there are, I am informed -- and ask you to deal with it in your own evidence -- that there are archaeological sites shown as small dots. These sites, I am told, are taken from the paper which you delivered following your work in the area, and in addition, sites identified by researchers engaged by the Polar Gas in a project with which you had some identification?

A. That is correct.

Q. Now, referring to your own paper and referring to -- your own

paper which I gave back to you -- and referring to the study, could you identify the sites for us, please? This is all done for the purpose of identifying this acetate overlay and then we will go into the evidence following that.

THE COURT: This is the first overlay?

MR. GOLDEN: Yes, the one immediately above Exhibit --

THE COURT: Exhibit P-9?

MR. GOLDEN: Yes.

THE WITNESS: It's a little more difficult for me to separate these dots and designations at this scale, but I could tell you, for example, on the northwest shore of the lake around the present day Baker Hamlet I discovered and worked in four different sites. One of these had previously been visited by Father Guy Mary-Rouselliere who tested it, and I did some subsequent work on the same site and then explored a little further around in the country and discovered four others.

BY MR. GOLDEN:

Q. Which area would that be? Can you show us?

A. That would be just to the left of the star which I take it indicates

the location of the south.

Q. Yes. There are actually five sites indicated on there. If we look, we can see five. They are identified as CH?

A. That's the Cemetery Hill?

Q. Eight, thirteen to the east of the --

A. And eleven and twelve to the west.

Q. Now, then --

A. Those are the ones I worked in, yes.

Q. And you identified those on the map as being an accurate placement of those sites?

A. Yes.

Q. Subject to the --

A. Sufficient for the scale, I would think.

Q. Now, then, can you show us the other sites in which you were currently engaged?

A. Well, then, I travelled across the lake to the southwest corner and spent some time in camp there exploring around a small place called Qikirtuajaq Lake, which

is a fishing lake where people come regularly early in the summer for the fishing runs. At the time that I was over there the Constables for the RCMP were actually in camp on a little island there catching fish for dog food. In explorations around that part of the lake I discovered and worked in five other sites. They are numbered 14, 15, 16, 17 and 18.

Q. Yes. We have those sites numbered here?

A. They are all in and around the outlet of that little lake which flows right in there.

Q. Yes. Thank you.

A. They are on both sides, east and west.

Q. Can you then identify the further site that you have personally worked on, using this map?

A. Going back into the country?

Q. Yes.

A. Well, following that little spell at the southwest end of the lake, we returned briefly to the Hamlet to -- we had been waiting, incidentally, for the ice to come out of the river so we could move up into the country by canoe --

and so along toward the middle of July -- I don't remember the exact date at the moment -- we were able to move up river and operate back in the country. Therefore, we established a series a camps going up the lower Thelon River to the lower end of Schultz Lake. Then we had a series of base camps at the various narrows along this chain of lakes until we got back into the interior, as far as Beverly Lake. Each of these bases we occupied for a few days or a week, explored way out as far as we could comfortably do -- sometimes by foot, sometimes by canoe--at each of these places which I had predetermined, really before entering the field, we discovered, in every instance, a number of prehistoric hunting sites. These were all located at or near major caribou crossings.

Q. Just for the purpose of the record, can you identify the sites here marked, starting at the east end of Schultz Lake as one, two, three, and four?

A. Yes. I gave -- I used the local place names -- mainly the lake names as designated for these sites -- they are simply abbreviated -- I used initials SL for Schultz Lake and, then, the series of sites we discovered around Schultz Lake was kept as a

unit and, then, we moved westward to Aberdeen, that became a separate series of sites, so forth, so on, so that I could easily distinguish those.

Now, around Schultz Lake at the southwestern end of the lake, I discovered and worked in four different discrete sites, of which one had four distinguishable components or units -- subunits -- within it. So, in other words, we have there essentially seven prehistoric sites at the southwestern end of the lake -- southeastern end.

Q. Southeastern end?

A. Yes.

Q. They are numbered one, two, three and four on this?

A. That's correct.

Site number two had the one with four components; 2a, 2b, 2c and 2d.

Q. That is shown on page 8 of your paper?

A. Yes.

MR. GOLDEN: We will file the paper, My Lord, but unfortunately we did not have a clean copy of it until today and we have had to do some extra xeroxing. It will be delivered before Dr. Harp finishes his evidence in chief. I will file the original as an exhibit at the appropriate time but I would

like him to deal with it for the time being.

THE WITNESS: Then we moved on to the western end of Schultz Lake.

BY MR. GOLDEN:

Q. And there --

A. There I set up camp in the southwestern end and discovered and worked in three more sites numbered 5, 6 and 7.

Q. Five, six and seven at the southwestern end?

A. Yes. There is an eighth site on the northwestern end and discovered that on the way back out near the end of the summer.

Q. That's number 8 in your map?

A. Number 8.

Q. Thank you.

A. Then we moved on next up in the narrows between Schultz Lake and Aberdeen Lake and set up camp at the northeastern end of Aberdeen, explored around there and discovered again -- work and collected in four different sites which are called AL1, 2, 3, and 4.

Q. We have them shown on the northeastern corner as 2, 3 and 4, but

your designation is AL1, 2, 3 and 4?

A. Correct. You may notice directly across the strait at that point on the south or eastern side there is a site numbered 9. This, again, is one of those that we picked up on the way out of the country at the end of the summer. Is that shown?

Q. There is a 9 up at Schultz Lake, but I think you're talking about Aberdeen?

A. There should be a 9 in here. Here we are.

Q. Maybe we missed one.

A. That should be right in here that number 9.

Q. Number 9 should be immediately across from 4 at the eastern end of Aberdeen Lake?

A. Yes.

Q. Thank you. Sorry about that. It is an oversight.

A. Then we moved approximately to the mid-point of Aberdeen Lake where a large peninsula juts northward and creates a rather tight narrow and set up camp near the tip of that narrows and found and worked in one more site.

Q. That is numbered number 5?

A. That's AL5.

Q. Thank you, Doctor. Now, coming back to the Baker Lake area. We have located the maps -- first of all, did you have any active or consulting role with the study in respect to a study prepared by Peter Schledermann, the Arctic Institute of North America?

A. Yes, I did.

Q. That was a study --

A. Yes. I acted as a Senior Consultant on this project.

Q. All I would like you to do at this point is identify for us, if you would, on this map sites which are shown in the Baker Lake and Thirty Mile area, which are not sites that I understand you personally have worked on. I produce to you the two maps involved. First of all, the southwestern area of Baker Lake. You worked in here?

A. Yes.

Q. You indicated your sites in that area?

A. Yes.

Q. Can you indicate for us, please, the --

A. Well, if you will search out the sites numbered 14 through 18 --

MR. HEINTZMAN: I'm sorry, what is he referring to?

MR. GOLDEN: This is the Polar Gas Study, the survey of archaeological sites.

THE WITNESS: Page 215.

MR. GOLDEN: The survey of archaeological sites prepared by Polar Gas.

MR. HEINTZMAN: My Lord, I am not familiar with that document. From what I understand Dr. Harp did not do that work. I would like to see the document.

MR. GOLDEN: What we are trying to do is --

THE COURT: Let your opposition understand what you are doing.

MR. GOLDEN: Obviously I am identifying known archaeological sites for the purpose of establishing this overlay. We have, as I indicated yesterday, sites that are located from two sources. One is from the Polar Gas Study and the other -- the first one, of course, is Dr. Harp's own personal work.

Now, he was a Consultant on the Polar Gas Study and has some familiarity with the work that was done. We are not relying in any way on archaeological finds in the Polar Gas Study, but simply identifying all the known archaeological sites in the area.

THE COURT: Well, did Dr. Harp find those sites that are in the Polar Gas Study or --

MR. GOLDEN: No.

THE COURT: -- simply to tell us that the Polar Gas Study indicates there are sites?

MR. GOLDEN: Yes, the Polar Gas Study was a survey of archaeological sites, rather than a study of them. As Your Lordship will understand the Polar Gas is building a pipeline, and down its route they wanted to identify archaeological sites -- or those nearest route. I don't know -- presumably for the purpose of avoiding them.

THE COURT: Is it the intention that what the Polar Gas Study tells us where it locates archaeological sites is to be evidence of archaeological sites and are, in fact, there?

MR. GOLDEN: No, except to show that archaeological sites have

been identified in those areas. We are not going to go further with that evidence because no work has been done on those sites. We are not going to go into the findings in those sites.

THE COURT: I don't know what it proves, honestly.

MR. GOLDEN: For the sake of completeness, frankly. Initially, in developing this material, we drew on all the available resources we could. We do not want to put in a map that's half complete. On the other hand, we do not plan to prove anything on the sites that are now being entered.

THE COURT: I guess we have a map that is an exhibit that we had better have an explanation of what the other spots on the overlay are.

MR. HEINTZMAN: Maybe my friend can make available this new book that Mr. Harp's Affidavit directed me to some material, and including the 1961 article. I would certainly like to reserve my objection until I see what it is that Mr. Golden is now referring to.

THE COURT: That's fine, Mr. Heintzman. But we really do need the

explanation of the other marks on the overlay.

MR. GOLDEN: That is where it will end. I do not plan to proceed any further.

Q. Basically, Dr. Harp, can you tell us about the sites shown as 5C on the southwest corner of Baker Lake and down at Thirty Mile Lake with reference to the source of identifying those sites?

A. These resulted from a sort of statistical scale sampling technique that Dr. Nash was following as he explored along this proposed pipeline route. It is sort of automatically selected in one sense. In any case, I think all of these additional sites at the southwest end of Baker Lake -- and that would be all those numbered above 18, beginning with 19 on -- were discovered by Nash and his party, very briefly surveyed, surface collected, and are briefly described in this report. As I recall, they essentially confirmed and broadened the spectrum of sites -- smaller spectrum that I had established some years before. In other words, they became a potential source of much fuller information than I was able to obtain in the area. As I recall, offhand, we have a sequence of Eskimo occupations in that area that runs from

recent historic period back into prehistoric times, as far as what we know the pre-Dorset period which may be as early as 1000 B.C.

Q. I will be asking you to detail your own findings in that respect in just a few moments.

To keep again along the lines of the question I was asking of identifying these black dots so we can get rid of this problem, can --

A. All of these little black dots I have seen and identified on the map in this report as sites discovered by Nash and his party.

Q. Does that include the ones at Thirty Mile Lake which are numbered, I think, 1 through 14?

A. Yes. We can say the same for those. I have not been back in that country around Thirty Mile Lake, so I have not had individual experience there.

Q. And the southwest corner of Baker Lake, Nash also observed the sites numbered 20, 24, 25, 26?

A. Yes.

Q. Going up the river to the northwest?

A. Yes.

Q. Thank you. We will now go on to more salient matters.

On reviewing your curriculum vitae and, of course, your Affidavit, we see in 1958 you conducted an expedition in Keewatin Barren Grounds, in the Northwest Territories. Referring again to the map, Exhibit P-9, briefly, can you tell us -- I realize you have just done it but I would like you to do it now more directly for the purposes of the record -- what areas you covered-- and we will deal again in detail with that in a moment-- what areas did you cover in your expedition in that year?

A. We started in the area of the Baker Lake settlement, northwest end of the lake, explored briefly the surrounding country, shifted across the lake, set up camp at the southwest end of the lake, explored there briefly for a few days, and then we moved by canoe up the river through a series of three camps to the upper rapids, and at these various mid-points explored briefly into the surrounding country, but I was anxious to move and get back into the interior so we did not spend too much time here. However, once we came out on top at the lower end -- the east end of Schultz Lake

there we began our major encampment. These were all tentatively located at major caribou crossings where I was especially interested in exploring for archaeological remains. So, we had a series of camps at both ends of Schultz Lake, had three camps on Aberdeen Lake and we had four camps on Beverly Lake.

Q. Yes.

A. Our last camp was quite near the upper end of -- western end of Beverly Lake.

Q. Yes.

A. Then on the return trip we moved rather hurriedly through the lakes-- it was late in summer and we had excellent weather -- we did not waste too much time because we were trying to get out and get a plane -- so we had one -- five brief camps on the way out and that enabled us to explore other areas. So, we had, throughout the summer, I think made a fair explorative sampling along both sides of the chain of lakes at some of the more important caribou crossing areas.

Q. Were your findings in that expedition reported in a paper which is referred to in paragraph 3 of your Affidavit, published by Technical Paper No. 8 by the Arctic

Institute of North America in December of 1961?

A. Yes.

Q. I understand you have an original in your hand?

A. A copy.

Q. You have a copy of that paper. Would it be a terrible imposition to part with it and substitute with a xerox?

A. Not at all.

MR. GOLDEN: My Lord, I wonder if we might have that marked as an exhibit?

THE COURT: Exhibit P-22.

MR. GRAHAM: I object, My Lord. I object to have that marked as an exhibit. I think it would be perfectly appropriate for any of the counsel here to use that paper for cross-examination as it has been referred to in Dr. Harp's Affidavit. I would like to draw your attention to the Chief Justice Jackett, reported in 1978, Vol. 1, Federal Court Reports. The name of the case is Karam vs. The National Capital Commission. His Lordship had this to say about expert evidence and reports which are filed with this court, which we know has a special rule in respect

thereof. I quote His Lordship that I wish to add that a perusal of some of the Affidavits of the experts filed in this case lead me to believe Rule 482 is being followed by some counsel, if at all, in the letter rather than in the spirit. Indeed, in my view, the result is less satisfactory than the voluntary exchange of evaluation reports. I strongly suggest that. When expert's Affidavit is not contained sufficiently in a detailed statement of the expert's reasoning so that the court, in the absence of attack, adopt that reasoning as its own and decide the question that it's the subject of is evidence on the basis of it, the parties should not be allowed to supplement it by verbal testimony until such supplementary Affidavit is filed containing such reasoning and the other side and court have had an opportunity to consider if that involves adjournments, costs thrown away -- that should be assessed against the party at fault.

Now, My Lord, in this particular case His Lordship was directing himself even to the admission of additional verbal testimony. What we have got here now is a complete additional document, which my friend wants to file as an exhibit, which

really he's making it part of the Affidavit. I find -- speaking for myself -- as I say, it was referred to in the report, and I can see it being used for cross-examination, but I cannot see my friend being allowed to proceed in this way and say that's all part of the Affidavit and that's all part of the expert evidence of this witness. That is the Federal Court of Appeal. I believe the rest of the members of the court, Justice LeDane and Justice Kerr concur, but it doesn't say they were concurring with that part of the judgment or not but concurred in the result.

THE COURT: Well, I have been rather expecting this sort of objection for some time. I think there is a real problem. If you want to sit down for a while, this may be a good time.

THE WITNESS: Thank you, sir.

THE COURT: There was a real problem with the expert Affidavit the other day. I thought the rule requires that the evidence in chief be fully disclosed in the expert Affidavit. The examination of expert Affidavits filed in patent cases -- perhaps to a lesser extent in expropriation

cases -- in this court will indicate the sort of Affidavits that really ought to be filed. Now, I don't know what the court does under sub two of Rule 482b to be -- have a discretion to allow any on such terms as being just. This is a large and extensive trial. I am not disposed to allow people to be taken by surprise by expert evidence, but I, on the other hand, am not disposed to go back to square one with the case and force anybody -- deprive anybody of the right to present a full and fair case. Now, I have no idea what is in that report. I guess you don't either.

MR. GRAHAM: I have some idea.

THE COURT: I think what we maybe should do is take a brief adjournment now so that you can look at it. If, in fact, the Defendants feel they are taken by surprise and require time to prepare to respond then I am afraid we will have no choice but to adjourn and give them that time.

MR. GOLDEN: Did my friends say they didn't see this paper? It was specifically mentioned in our Affidavit.

MR. GRAHAM: No.

MR. GOLDEN: It is a long

and technical paper. Frankly, if I may say at this point, it's not -- the Affidavit stands on its own. I felt, frankly, in fairness that the paper which is full of scientific data and has very little in it appealing to the layman -- certainly nothing that I want read verbatim into the record for purposes of the witness' own testimony -- I felt it was only fair that we file it, and that everyone concerned have an opportunity to if they like to try to shoot holes in the scientific findings. It is the only definitive study in the area. I thought it should be before the court. Now, if my friends have not seen it, frankly, I find it difficult to assume they haven't read it because they have prepared this case very carefully and they had adequate notice of it. We have all the archaeological papers written on it and got this research and actually got this one, not from Dr. Harp, but from the library.

THE COURT: That's Mr. Graham's point, that it is there for cross-examination but that you, in your evidence in chief, must depend on what you disclosed in the Affidavit.

MR. GRAHAM: If Chief Justice Jackett says that's the evidence and

Your Lordship -- if this is made an exhibit and Your Lordship says in reasons for judgment I find on page 32 as you quote this as being a fact that is found, I think that is very different than if the matter comes up in cross-examination. Of course, I do not pretend -- I have seen it. We have all seen it.

MR. GOLDEN: There is no surprise.

MR. GRAHAM: It is making it part of the proof.

THE COURT: As I understand the rule, you have filed an Affidavit, Mr. Golden, of Dr. Harp's qualifications. They are included in that. His expertise in the field is unquestioned. He has arrived at a number of conclusions. Those are disclosed in the Affidavit. That is your evidence in chief. You have also disclosed some background material, which certainly your opponents may take advantage of and test Dr. Harp's conclusions and so on, but --

MR. HEINTZMAN: My Lord, may I speak to this matter?

THE COURT: Yes.

MR. HEINTZMAN: I think it is only fair that I say I have read Dr. Harp's

article and I am prepared to cross-examine him at some length upon the article. That is not really the point that is being spoken to, of course, because I told Mr. Golden at the beginning of this case that it was an essential ingredient to his case that he prove the use of occupancy from time immemorial, and that the only way to do that is through archaeological evidence. On the face of it there did not appear to be any archaeological evidence tendered on behalf of the Plaintiff directed to that issue. I want to be very clearly on the record that it is an essential ingredient of the part of the case and the Plaintiff must put in all of its archaeological evidence in chief and not in reply. That being the case, I am prepared to cross-examine Dr. Harp, but I must say that the purpose of the rule is so we will know what he testifies in chief and if there are things that come out in chief for which I am not prepared to examine it may be that I will require at that time some time to tender further evidence in response to Dr. Harp's testimony. That is really the position I wish to put forward to Your Lordship. If at the end of Dr. Harp's evidence we require further evidence to answer the archaeological case which my friend now seeks to put forward

and which he did not put forward in his Affidavit, then, I think that will be my time to say A, I may need more expert evidence and B, the Plaintiff shall not be permitted to call any evidence in reply.

THE COURT: Well, my own disposition in this matter is that we will have as many adjournments as are necessary to do the thing properly. The case is not going to succeed or fail on questions of non-compliance with the rules as to adduction of evidence. I think your position now, Mr. Golden, is that the objection that Mr. Graham has made is well taken. If you are content to rest Dr. Harp's evidence on his Affidavit as duly filed under Rule 482, fine and dandy. If you feel that you must get further evidence in chief, then, we will have to get a supplementary Affidavit and adjourn and do properly so.

MR. GOLDEN: I think perhaps I should explain more carefully then the purpose for which I filed this paper. I don't know whether my friends really understand this or not, but as counsel for the Plaintiffs in this action, I think it is encumbent upon me to be as candid as I can and as fair as I can. When I present a witness in the first instance -- now, I am not dealing with the

issues Mr. Heintzman raises -- that is a separate issue and I will have to deal with it quite separately -- I am dealing now with the issue Mr. Graham raises -- Mr. Heintzman joins him -- and that is, I should not file the paper. I want to say here and now that the paper is not intended by me to be specifically evidence of facts contained in it. What I am doing is, in the course of -- the paper was mentioned in Dr. Harp's Affidavit -- in the course of elaborating upon some of the points that he has made in his Affidavit it may be necessary for him to refer to a specific site or a specific complex described or something else and it may come up, indeed, in cross-examination -- my friend Mr. Heintzman promises that it will -- and I thought it only fair and convenient that the paper be before the court. I do not intend to use it in place of the evidence of Dr. Harp. To the contrary. It was designed specifically to allow a full presentation of his evidence. I must say that I also was not sufficiently familiar with the rule to understand that I had to file scientific papers written by the deponent as part of the Affidavit. I thought it was sufficient that I outline the evidence

that the deponent was giving. Perhaps I should have put more emphasis on these affidavits on specific evidence, but I still felt there was room for verbal evidence within the scope of the Affidavit. However, dealing specifically with the question of the paper, I am in Your Lordship's hands. I do not care if it goes in. Frankly, I have put it in to convenience my friends and to convenience the court and to convenience the witness in dealing with the questions that were going to arise. If it doesn't go in and if my friend chooses to cross-examine on it then I will ask that it go in at that time.

THE COURT: You may have grounds for doing it then.

MR. GOLDEN: Frankly, I think we are all being unduly technical. We all know Mr. Heintzman will cross-examine on this point and he is presumbly -- presumably had read the paper and presumably going to deal with it. What are we doing here? We cannot be playing such fine technicalities that I should not put it in as part of my case in chief in order that it be before the court. I do not intend to have Dr. Harp -- specifically have no questions for him to refer to it.

THE COURT: I am not going to accept anybody being unduly technical at either side. There is a purpose to the rule. It is to prevent, I suppose, victory by ambush in the area of expert evidence and to give a fair opportunity to the opposing parties to prepare, to reply to expert evidence. I guess Mr. Graham has made his objection. His objection is well founded on the rule. If you do not care personally if that goes in right now, then I guess we can go on.

MR. GOLDEN: Give Dr. Harp his copy back.

THE COURT: It may very well be if it comes up in cross-examination that there will be an opening where it properly comes in.

MR. GOLDEN: I will say right here and now if one word is mentioned I intend to insist that it be entered as an exhibit.

My Lord, we have another matter to deal with. My friend Mr. Heintzman was kind enough to tell me how to present my case. I have had the benefit of his counsel -- I sometimes take it -- but when he's my opponent I usually

don't. I elect the latter in this case.

Dr. Harp presented in the form of an Affidavit, sworn on the 26th of April of this year, and we received, I might say quite unexpectedly, a form -- I will not say it is an Affidavit within the rule because it's not -- a form of document from Mr. Heintzman containing two papers published by Dr. McGhee. I have read those papers a number of times. I am not certain they are relevant to the issues in this action. I am not certain what points he wishes to make by filing the papers. There is no statement in his document indicating evidence that Dr. McGhee is going to give -- there isn't the document you would expect -- that is a document signed by Dr. McGhee setting forth the basis of his evidence at all-- if we are going to be ambushed I suppose I am getting ready to be ambushed. I decided, and I stick with that decision, not to split my case but not to anticipate Dr. McGhee either or indeed anyone else that my friends intend to call that will deal with the archaeological evidence. I will wait until Dr. McGhee or any other witness my friend chooses to call to testify -- and I have had an opportunity

to cross-examine them -- and at that point if I consider it to be abrade question which I feel will need rebuttal evidence, I will feel quite free to call rebuttal evidence. What my friend sought to do was to try to head me off from calling rebuttal evidence. I don't intend to be headed off in calling rebuttal evidence. We don't have any basis on which to know whether Dr. McGhee's evidence will be germane to the case.

THE COURT: Certainly in the area of rebuttal evidence you are not subject to the constraint we have been discussing as far as evidence in chief is concerned.

MR. GOLDEN: I think my friend's point is that he wanted me to deal with the entire matter of Dr. McGhee's paper through Dr. Harp. Dr. Harp will deal with his own evidence and not evidence of anyone else. If my friend chooses to cross-examine -- to put propositions made by other persons -- that is his privilege to do so. But, I will not lead evidence and I will not be in a position of precluding reply on that question. I don't consider Dr. McGhee's thesis, whatever it may be, to be an issue at this time.

MR. HEINTZMAN: So that I may be clear on the record, it is the Plaintiffs' case and Mr. Golden made it clear in opening it must be the Plaintiffs' case, because the Plaintiffs and their ancestors reside in this area since time immemorial. If he seeks to lead any evidence of an archaeological nature, he must do so in chief -- it is not pursuant to a rule of practice, it is written in the rules of court -- that is pursuant to the rules of practice that are written in the rules of evidence.

MR. GOLDEN: My friend need not flog that, I am quite aware of that. My point is, I am not going to deal with reply in chief.

THE COURT: We are spending a great deal of time fighting about a bridge that is some miles down the road.

MR. GOLDEN: I raise it only because my friend did.

THE COURT: The caveat has been filed and you indicated that you are --

MR. GOLDEN: I hope my friend overheard carefully that I do not consider Dr. McGhee's paper to be sufficient as an Affidavit under the rules. I will be

objecting to it at the appropriate time to any evidence being given by Dr. McGhee at any point.

MR. HEINTZMAN: My Lord, I take strong exception to that.

MR. GOLDEN: You may, but --

MR. HEINTZMAN: Just a minute. When we were in Baker Lake all counsel agreed that His Lordship would read these Affidavits or materials filed pursuant to the rules. This is no time to say these materials are not properly before the court.

MR. GOLDEN: No, I didn't waive requirements of the rules. I simply --

THE COURT: I think, in fairness, Mr. Heintzman, what the agreement that I be permitted to read the experts' Affidavits in advance was simply that it would enable me to be better prepared for just such events as we are now experiencing. It was certainly not, in my view, then binding upon the parties necessarily to advance that expert evidence at all. It was put very fundamentally.

MR. HEINTZMAN: Surely, My Lord, if I walked into Your Lordship's chambers

with a piece of paper on which I had written my name my friend would have said, "Well, that is not an Affidavit or a certificate under the rules." He has permitted the court to read the Affidavit, and the Affidavit, in my submission is before the court. I don't want to be taken by surprise. I have filed this Affidavit, and there is not a suggestion that has been made that it's not in conformity with the rules -- until two minutes ago -- it has Dr. McGhee's signature on it, it has his name --

MR. GOLDEN: Where is the signature?

MR. HEINTZMAN: Right at the very front. It says by Robert McGhee. That's his signature.

MR. GOLDEN: I do not understand.

THE COURT: I think surely we should deal with the admissibility or otherwise of Dr. McGhee's expert evidence when Dr. McGhee is present or when you introduce it.

MR. HEINTZMAN: I don't want to be ambushed.

THE COURT: I don't think you are going to be. You have had fair

warning, Mr. Heintzman.

MR. GOLDEN: I intended at the conclusion, My Lord, of our evidence, before we closed the case to indicate to Mr. Heintzman, who was going next -- which he is not now -- to indicate to him that I would object -- it would be able to give him an opportunity to bring a motion if he saw fit because I wanted a statement of Dr. McGhee's evidence -- apart from his article -- and I quote him a case Mr. Graham quoted to me, Karam, which says just that.

THE COURT: Well, you know, we are in a very odd position here, basically, that I am going to have to resolve. The issue of fact, I take it that is of concern, is the allegation in the Statement of Claim that these lands have been occupied by the Inuit since time immemorial. The Crown has admitted that. One Defendant has admitted that in his Statement of Defence. It is not in issue as far as the Crown is concerned. You dispute it. I don't know where we end up. If evidence goes one way and the Crown has admitted it the other, that is going to present a very interesting problem, from my

point of view. Anyway, let's deal with Dr. McGhee when we get to Dr. McGhee and let's worry about Dr. Harp now.

MR. GOLDEN: My friend however does have notice and I will not make it again so --

THE COURT: Yes. Okay, Mr. Golden.

BY MR. GOLDEN:

Q. Dr. Harp, I should like to ask you some general questions about the science of archaeology, if I may?

A. Yes.

Q. Can you help us, please, to determine what is the science of archaeology and what are the limits?

A. Well, I personally was brought up and educated in the broad liberal arts tradition and learned that archaeology is one phase or one aspect of broad study of anthropology which, in general, is the science of mankind.

When we say anthropology, this is one of the broadest, most problistic kinds of investigations known anywhere or disciplines, too, if you don't mind calling it that, because we are interested in the human species in biological terms, evolution

from lower forms of animal life, unless you are a fundamentalist, we are interested in various human cultures throughout the world and interested in all these phenomena throughout the entire span -- time span of human history. This means that ninety-nine percent of total concern perhaps lies in the prehistoric past before the development of writing the written record. This is nine percent segment of human history that can only be understood through the technique of archaeology, which is just that. In my opinion, it is a series of techniques or methods used for retrieving information from the past and analyzing and interpreting this material evidence so that we can better understand our current human condition.

Now, you spoke about the limitation of archaeology. This is a very important consideration, really, because obviously we have extreme limited evidence to deal with from the ancient past. In some areas of the world where conditions are ideal or optimum the material goods remain preserved for perhaps thousands of years because of the dryness, desiccation, so on so forth. But, in most other places they may disappear and disintegrate and, more

specifically, when we are dealing with Artic cultures in prehistoric time, we find that in most instances the sites occupied by these people in the past contain just the few little meager tools, weapons, and other kinds of implements that were made of imperishable material -- primary stone, in some cases ivory and bone that may be preserved if conditions are right -- sometimes even wood -- sometimes these may be preserved very decently in frozen subsoil. But more often than not they are gone. So, in the final analysis the evidence we have represents just a minuscule compound of the total culture of the people involved. We cannot infer -- we can infer from such things as weapon types, frequency distribution, various kinds of tools, what some of the economic activities were going on amongst these people, what their subsistence orientation was, particularly if we have bone we can identify the game specie, sort of thing. But, we can infer very little about the intellectual life of these people, for example, from such minimal evidence. So, the point, to summarize this whole statement, I think is that through archaeological evidence we sometimes get an extremely narrow view of an ancient people and

what their total lifestyle or culture was.

Q. In the terminology of a lawyer then -- even narrow as it may be and isolated though it may be, the artifacts which you may discover may be the only -- I don't use it as a pun -- the only hard evidence that we might have of anything in that era?

A. It is all we have. We have to be satisfied. We handle it skillfully as we can without being too imaginative, too inferential.

Q. I should like briefly -- you know the areas of concern -- the area to the four points of the compass off Baker Lake roughly shown on the map up here, Exhibit P-9 -- it is not necessarily limited to the precise corner, but that area and certainly the area in which you have done a great deal of your work. Before we come to the specifics, can you tell us a little bit about the cultures that may be found in that area -- taking us from the earliest time, if there is any knowledge of them, to the present time -- and using not only your personal work but obviously related work of others?

A. You refer specifically

to this area here?

Q. Well, I understand that --

A. It is all --

Q. You might have to describe other areas in order to answer my question. I would like you to eventually be directed to this area. However, what I would like you to do is describe the cultural phases that are known in the Arctic, shall we say. Let's deal with the Arctic, generally, or the Keewatin perhaps.

A. That is a sizable question but I will try.

Q. I will put it another way. Can you describe for us what is meant by -- first of all, can you describe to us what is meant by prehistoric? We will start with that.

A. Well, we can eventually use the word prehistoric to denote anything earlier than the advent of writing or recorded history, or in the case of new world peoples, before the coming of the Europeans -- the general pre-Columbian period -- and, of course, you can see immediately the boundary of prehistory that will vary from place to place and time to time.

Q. Roughly, what time frame are we talking about for historic and prehistoric in the context of the Keewatin?

A. Well, as I recall, in the area of Western Hudson Bay, the boundary line I suppose could be placed in the early seventeenth century -- Thomas Button's voyages, Jens Munck -- leaving Frobisher out of it, farther north, but these early voyages were looking for the Northwest passages -- again they were really the advent of history, I think it is fair to say.

Q. We are talking about the early seventeenth century?

A. Yes, give or take.

Q. That's the beginning of the recorded history of the area?

A. Yes.

Q. I'm not suggesting by that that it records every detail of every part of every area, but glancing off a globe that is where you find it.

Can you go into the cultural area in a similar way and identify for us, please, the significance of the terms Dorset and Thule? I am narrowing the issue down, obviously, to save time.

A. Maybe I should start out a little bit earlier than that and say a few words about the general scope and the history -- Eskimo history and culture -- Inuit culture or history. As we understand it today, it is a people. These people, of course, are the aboriginal first inhabitants of the North American Arctic, all the way from Alaska to Greenland. They have, throughout their entire span of history there -- which goes back at least 2000 B.C., and earlier perhaps in the area of the Western Arctic-- throughout that time span of four to five thousand years, let's say, they have been associated with Arctic tundra and developed a series of economic adaptations that have enabled them to live successfully in that kind of biome, shall we say. They are virtually unique in the world insofar as we can view them as a genetically one ethnic -- one discrete ethnic group. They speak a common language across that entire spread of the continent, which though they may be dialect differences from east to west I understand it is mutually intelligible with a little effort, and at any point along the line. Thirdly, at least in later classical times we can say their essential cultural adaptations to the life in this harsh

environment contain -- is characterized by many common elements throughout this vast geographical spread, despite the fact there will be local difficulties. Okay. This did not happen overnight. It developed through a series of developmental stages through people and moves. To begin with, we trace the origins of the Eskimo people and the underlying fundamental elements of their cultural back to the western Arctic. We see them coming -- their ancestors as a people coming out of Siberia at some point, inhabiting the area of Bering Strait perhaps for millennia before developing eastward. In order to comprehend and understand this development of their culture, of their language and so forth we do what we do in most instances, we try to group all these diverse facts into manageable categories. We think of their development through forty-five thousand years as having taken place through a series of stages. In these stages we can see geographical movement, we can see the evolution of weapon types, adaptation, response sometimes to climatic change, so on so forth. These stages, as we sometimes call them or phases, whether we like it or not, we have to plug these into our calendar because we try to understand

everything in terms of time, sequence, and give them names. Most of the names we have given are local place names. That is all just. A matter of convenience. The earliest stage of what we can tentatively call Eskimo culture on the basis of severely limited evidence, moving eastward into the central Arctic and eastern Arctic we call pre-Dorset. Now, that is a reverse order thing because there is something else called Dorset which was identified first and, then, all of a sudden it occurred to other people -- here is this stuff down here and it appears to be ancestral -- we don't have a decent name so let's call it pre-Dorset -- anyway, this was a stage of cultural adaptation that appears to have been oriented mainly towards land hunting -- the caribou, probably the musk-ox, perhaps a little bit towards life on the coast, little bit of sea mammal hunting here and there -- primarily the emphasis is interior hunting. Using these skills they moved eastward and inhabited the central Arctic regions, so forth. We can trace this culture back, incidentally, to early tundra hunting cultures, tool tradition that Dr. William Irving identified through his research in Northern Alaska on the Arctic slope. The time frame for this pre-Dorset --

this first stage of so-called Eskimo culture -- oh, I think in the central Arctic at any rate we can place in the realm of say two thousand to one thousand B.C. Take this as an approximation. It will vary in some areas, earlier as well as later.

There are two difficulties with respect to this. Although we begin to see here the beginnings of Eskimo economic adaptation to life in the Arctic-- obviously a pretty successful one because it lasted roughly one thousand years -- we cannot positively identify these people as Eskimos because they have no human skeletals left in their sites yet and, of course, we know nothing of the language they spoke. Therefore, we cannot relate it positively. But, growing out of that stage then came this succeeding Dorset stage which we place widely throughout the central Arctic-- around northern Hudson Bay, up through the Islands of the Archipelago, even into Greenland and all the way down the Labrador coast into Newfoundland -- so, in the space of the next two thousand years, from approximately one thousand B.C. to 8000 A.D. -- again allow for flexibility at either end of the scale -- during this space of two thousand years you see this

florescence of Arctic culture which we now can view more certainly as Eskimo, because we have a little bit of skeletal evidence from several sites which is more clearly related to present day known Inuit people and their physical characteristics. We still don't have any language for them, but we can infer -- it is not unreasonable -- they would have spoken an earlier form in the Eskimo language. Now, really for the first time we see a quite full-blown economic adaptation to sea mammal hunting with various skills and specialties allowing these people to hunt seals on land, ice, probably at breeding holes, and as well as hunting inland game, caribou, at certain seasons of the year.

Whereas in the pre-Dorset stage, most of the sites presently known in the interior and the emphasis was on caribou hunting.

In the Dorset stage most of the sites we now know are coastal sites and the orientation is strongly towards sea mammal hunting -- whereas we know far less about them in the interior, although we assume that most, if not all of these groups, also on a seasonal basis moved into the country to take caribou at the end of the summer.

It is virtual necessity in the Arctic to hunt caribou because it's so important not only as a source for food, but also for skins and so forth.

Then the next major stage that we identify is given the name Thule, and it's derived from --

Q. T - h - u - l - e?

A. T - h - u - l - e.

Q. Yes.

A. This name derives from the Fifth Thule Expedition staged in the early 1920s by the Danish explorer, Rasmussen, who had in his party a well known excellent archaeologist by the name of Mathiassen, who for the first time in his explorations around the northern Hudson Bay began to identify these strange prehistoric settlements on higher beach levels that nobody ever paid attention to before. He began excavating these and began to recognize that he had a whole new Eskimo culture. It was quite different from the stuff that was known at that time.

Q. Quite different from the Dorset?

A. Well, Dorset culture was not known at that time. In fact, so little was known about Eskimo culture at that

time it is amazing that they -- the theories they came up with were not wilder than they were.

Anyhow this Thule culture was ultimately, through subsequent field research by a number of people, was traced back along the path it followed from the Bering Sea area in western Alaska. It arose there from a basic Eskimo like maritime sea mammal hunting adaptation in the islands and on the coast of the Bering Sea. In particular, it developed techniques for advanced nagivation in larger boats, and also whale hunting techniques involving float harpoons -- a new technological device, in other words, that gave them a big boost in terms of their economic adaptation to the Arctic. If you can move out and kill large whales -- not small species but the big huge ones, you immediately have a magnificant food supply, and it could take care of a large number of groups for a whole season. So, this is a distinctive advantage in terms of adaptation. Using this advantage these people, beginning about 1000 A.D., spread quite rapidly eastward from Alaska into the central Arctic. In the years, approximately between 1200 and 1400 A.D. -- again give us some leeway on either end --

they widely covered the central and eastern Arctic. For a period of time -- for part of that time in some places they obviously overlapped with the preceeding Dorset inhabitants of some of these regions. In southeastern Hudson Bay we found excavations of Thule and Dorset sites sitting side by side that date within a century of each other. There is every suggestion these people knew of each other and in a sense were competing with one another. Ultimately, the Dorset people and their culture simply dropped out of sight. We had no really very good explanation for this. Some people believe they were obliterated. Some people believe the Dorset still exist in the mythology of the current Inuit, who refer to them as the strange people who were in the country when our forefathers came. I, for one do not believe they disappeared or dropped out of sight. I do not believe they were obliterated forcefully -- there was any genocide of the sort. I think they simply became assimilated with the Thule people -- most of them -- but that is besides the point.

The Thule people then up to 1400 really had to show to themselves in the central eastern Arctic. Then it has

been suggested that because of serious climatic changes that were occurring in this post-glacial era that something happened to their whale hunting resources. Several suggestions have been made to the effect that because of isostatic continental rebound following the deglaciation of the region that a lot of the northern seas and inlets became too shallow for them to hunt large whales in. Other people claim there was a climatic shift -- a little ice age -- wherein the temperature -- the mean temperature altered a few degrees and this was enough to thicken up the ice pattern in the Archipelago and therefore block out huge areas -- or eliminate huge areas as whale hunting areas. So, one or both of these causes or maybe some other cause we don't yet appreciate caused these people to sort of wash back out of the area or retreat -- that is to say some of them retreated back because we can trace archaeologically a back wash towards Alaska. Then there are other isolated groups of them that remained scattered around the central and eastern Arctic living there as best they could and obviously successfully because we see no major break or discontinuity between them and the

present day Inuit who inhabit these very same areas. We -- I think most authorities agree -- that the present day Inuit are the decendants of Thule people, who, as I said, came from Alaska. As far as I am concerned there is also a component of earlier Dorset levels of people, culture incorporated -- enmeshed in them.

Q. Did the Thule people inhabit inland areas as well as the coast areas?

A. They did penetrate the interior in some cases, yes, to hunt caribou and to hunt musk-ox. I suppose, yes, up in the islands of Archipelago.

So, this is one of the attributes that has strongly characterized Eskimo culture -- classical Eskimo culture in the last -- say from the time of the Dorset people onward down to the present. That is, in most instances you can say these people have practiced at least a dual economy in the sense they spent the important part of their life at the coast hunting sea mammals, one species or another, and at different times of the year they will take inland to exploit other food resources, such as the caribou herds.

Q. I think it is a very

interesting and elucidate explanation of something we have only heard a few isolated words, Dorset and Thule, and gives us now a fairly good idea of the kind of terminology you and perhaps other archaeologists will be dealing with in the future in your evidence.

Can I take you then, sir, to your specific work in the Baker Lake region, which I understand you did in 1958. Firstly, before taking you to your findings, can I ask you if work has been done, to your knowledge, by others -- may I preface by saying I understand your work was the first work done in that area?

A. Yes.

Q. That is archaeological work?

A. Yes. Well, the first systematic work covering a wide area. I think we have to say that Father Rouselliere was in Baker Lake a couple of years ahead of me and carried on these brief, minor excavations. I simply was more extensive in my approach.

Q. Since that time I understood that other archaeologists have gone in and examined some of the sites you discovered and also examined some fresh ones?

A. Yes, sir.

Q. In any of the work that has been done to date, including Father Rouselliere's, has there been any -- I don't want to use the word derogation -- but has there been any archaeological findings themselves which have altered or changed the findings that you made when you were there?

A. Well, you asked a biased person, of course -- you better check on other people.

Q. I'm not talking about theory but findings specifically?

A. I think it would be fair to say the general scheme of development in this country that I suggested has been fairly well maintained. Details have changed -- some people do have different opinions -- but I don't think these have been drastically different.

Q. Again, going back to your findings, can you tell us, sir, dealing with the various sites, whether or not -- what is the earliest date -- of what you called in your evidence Inuit occupancy -- in the areas that you have discovered?

A. The earliest Inuit?

Q. You define Inuit as including Dorset. I want to know --

A. Yes. This is a term that, technically speaking, you may have a little problem with because of varying opinions. It is the name which the people prefer themselves today as their name. Here before this present age it was used largely by anthropologists and linguists in reference to the Eskimo language. So, sometimes there was a confusion.

Q. Whatever the terminology?

A. The question would come as to how far back one should apply this word Inuit meaning.

Q. Can I use ancestral people, then?

A. I would prefer something like that myself --

Q. Can you tell us something --

A. -- because that gives me a broader scope reaching back.

Q. Then from your own research -- your own work -- can you fix an approximate date -- the earliest approximate

date which you find evidence of occupation of ancestral people to the present day?

A. Yes, I can in a tentative way, because on this survey that I made I found no dateable organic materials in any of these sites and, therefore, came out with no -- absolutely no reliable date. I had to establish dates by comparison, inference with outside comparisons. So, it is possible to set up a series of tentative dates.

The earliest evidence then of ancestral Eskimo culture in the area would come from one or two sites around the west end of Baker Lake which I identify as belonging to the pre-Dorset stage.

Q. Pre-Dorset?

A. Yes. It is not a strong indication but I think it is a small but still fairly substantial indication involving the presence of certain tools, types of tools, toolmaking techniques and so forth. The closest geographical relationships with the outside world with that material seem to be -- appear to me -- this has been mentioned by one or two other people -- with the pre-Dorset cultures of the northwestern Hudson Bay --

the Foxe Basin.

Q. Foxe Basin is --

A. The northern region of Hudson Bay, up around the southern coast of Baffin Island, over towards Fury and Hecla Strait and so on.

Q. Just to pause here for a second -- I do not want to break your train -- do I understand correctly that Baker Lake is open to the sea -- rather, to Hudson Bay by water?

A. Yes, and connects with the so-called narrows which is still navigable by sizable vessels and barges. It connects through this narrow to Chesterfield Inlet. So its not unfair to consider it's a direct extension of Hudson Bay. I believe I think of it that way myself.

To carry on with this point, making that kind of connection allows us to place a tentative date, say 1000 B.C., on this pre-Dorset manifestation of Baker Lake -- 1000 B.C.

Now, so far we don't have any evidence -- I never found any evidence of the subsequent Dorset stage culture in Baker Lake or anywhere else on my

survey. As far as I am concerned, that evidence suggests a gap during that period of time. I'm not sure about the reasons for this -- several reasons have been suggested and I suppose they are irrelevant to my discussion.

The next evidence of Eskimo or ancestral Eskimo culture remains of the region comes with the presence of Thule culture. Here we have a sprinkling of sites -- the west end of Baker Lake and stretching all the way back into the country into Beverly Lake -- the narrows at the east end of Beverly Lake -- whereas you see in the report, or have seen, that we found this row of hopping or skipping stone.

Q. We don't have the report.

A. It is a peculiar distinctive feature to the culture. And there was a sizable settlement on the hilltop immediately behind the settlement of Baker Lake.

Q. Where the cemetery is?

A. No, the cemetery is farther west -- you may recall -- it is just behind the settlement where there is a lowish rocky little plateau like bluff -- it is immediately behind within half a mile or less.

Just behind this is a rather extensive -- was a rather extensive Thule settlement. So, this is a fairly substantial expression of Thule exploitation in this country. Again, although I have no positive dates from these sites themselves, it is reasonable to correlate their time period with others, that we know of, out on Hudson Bay -- we have a number of dated sites outside on the Bay that run from -- mainly from 1200 to 1400, again, give or take some on either end of this range.

Q. Yes.

A. Subsequently the remains are quite thin and scattered, but they are scattered widely through the country, through all of the country covered by this survey, and these relate to recent -- the recent people of the region, the so-called caribou people.

Q. Is there any break, that you are aware of, in the--

A. No, there isn't. I am not aware of any break. I see just a general continuity of culture that covers a long span of time -- at least from Thule time downward -- and even though we don't -- even though it is difficult, if not impossible, to plot in a precise neat full sequence of occupations,

generation after generation, century after century, you must remember that at very best archaeological research is a series of sampling operations. I could spend ten years in this country tramping up and down these lakes and still would not come out and say flatly that I have discovered all prehistoric sites or remains in that region. We never get all the evidence that we need there. We do our best to gain a valid sample of it.

Q. Among the difficulties you described in archaeological research, you describe a lack of inorganic material that you could use. From what we know of the modern cultural lifestyle of the Inuit -- and by modern I mean historical -- there is living in tents and there is living in snow houses -- which is a fairly common feature -- would this give you any difficulty in research?

A. Well, as my friend Dr. Irving said last night, no archaeologist has ever discovered remains of snow house. We never will. I see them out occasionally on the tundra today -- maybe a circular pattern of rusty tin cans -- maybe something like that is about as good as a sign you might have of a snow house. But, we do see in the prehistoric pattern seasonable difference between house types.

There was a rather wide spread tendency, as far back as we have house evidence -- in my case I have got loads of evidence of house types going back through the Dorset stage in Hudson Bay, and we see semi-subterrain in winter houses where they were slightly excavated below ground level which were probably -- had pole framework of some kind and with skin covers, and may have been banked higher with snow -- in some instances I know they were banked partially with cut sod -- these would be very warm, snug houses constituting reasonably stable base. I think when you see a house like this you realize that it's taken many man hours and women hours to build. They are built with extreme care. You think there must have been nearby sizable food cache that the people could live on for some period of time throughout the winter months. Then, with the spring coming, this meant a shift in the seasonal food orientation -- maybe seal hunting at the end. So, you would find the habitation abandoned -- people move off to this new hunting place, set up more temporary abodes -- a tent of some kind usually. You identify places like this because they are generally on the surface of the ground, not excavated. The remains, more often than not,

will consist of a series of hold down stones around the outside.

Q. Which you call tent rings in your paper?

A. Yes. It is to hold the tent skin cover down. So, you can see at least this dichotomy -- domestic adaptation in houses.

Q. Well, directing your attention again to the research you yourself have done in the Baker Lake area -- referring to the various sites -- can you tell us what reasonable inferences can be drawn from the size, location and type of structures that you found in terms -- not in terms now of date and time -- but in terms of the utilization of these houses?

A. I found nothing up there that I could identify positively as a winter site, mainly because I found no houses that were semi-subterrain, which I would have expected to find at least from Thule times onward. All of the sites that I found were within easy striking distance of or directly at caribou crossings. That indicates to me they were used either in the early summer, springtime with northward movements of the herd or again late in the

summer when the small groups of animals begin to trickle back southward towards the forest line. That seems like a positive kind of association that gives you immediately a seasonal clue.

Q. Amongst those things you described, were they in the Thule period?

A. The Thule period, yes.

Q. Yes.

A. As well as others who -- which may possibly be related to other periods that we have not talked about.

Q. Yes. We probably had enough. I am interested in the ancestry of the people that presently live in that area -- not so much people that live in there -- but the Inuit peoples in general, and relating it to them, do you have any evidence as to what these people -- that is any evidence based on archaeology as to what these people did, where they went in the time that they were not in these houses?

A. No, I don't have any direct evidence myself. I would assume, given the nature of the country, connections between Thelon, and the lake system with Chesterfield Inlet, Baker Lake, that they had some kind of part-time orientation towards Chesterfield Inlet and Hudson Bay.

Q. Now, we are dealing in a historic period which we date from the early seventeenth century -- mid-seventeenth century when the first explorers were touching on the coast line. We are dealing with the people shortly after that, at least, that are known to have resided inland all year.

MR. HEINTZMAN: With the greatest of respect my friend should not state a question in that way. I do not think it is a proper way to state a question to a witness in chief.

BY MR. GOLDEN:

Q. Perhaps I had better put it another way. It is a notorious fact that recently -- if my friend does not want me to put it, I won't -- we are assuming the obvious -- there is a time in history -- whatever time you feel to choose -- when we know that people have found ways of living on the land inland all year long. Can you bring that back to its earliest point, or is it impossible archaeologically to do that?

A. No. I really can't handle that. I don't have any archaeological evidence.

Q. Is there any evidence, to your knowledge, either way on that question?

A. The only evidence I know of in respect to that question comes from Birket-Smith, the one who really developed this notion of the people living back in this country all year round. He described it, analyzed it.

Q. His exploration was in --

A. The early 1920s -- 21, 23 -- that period, as I recall, with the Fifth Thule Expedition. He was the ethnologist.

Q. The archaeology, from the point of view of what we call hard evidence -- hard enough to survive to the present day if you can find it -- is there any hard evidence that's been discovered which would date that type of occupation -- that is, all year round occupation?

A. Now, the only evidence that I could cite relates to most recent times. I remember on the trip into the country coming across a number of recent native sites scattered along the lakes and we would find certain gear and property that had been left behind -- a pair of magnificant logs for a sledge hammer, as an example -- I remember climbing a set of those back in Aberdeen Lake -- these

were some of the places where a family or a hunter planned to return to some later scene -- some later year. I remember also that summer I had one Inuit Eskimo guide with me, Moses Aliktikshak -- I don't know, you may remember him -- who was a very fine young man -- I hired him and his boat to get me back up into the country for the summer. Unfortunately, he had severe tuberculosis which I didn't realize until we got one hundred miles back in. I heard later he had died the following winter. At some point back on Schultz I remember when we came upon a cache -- he pointed this out to me -- we worked it out in sign language, drawing pictures and notebooks -- this was his own cache of winter gear -- he had a sledge there with a house, and it had a wooden door frame, had a couple of cases with heavy cooking gear, stones, things like that -- you see, it was all very neatly placed there and covered. That is the sort of thing he would plan to come back to at some future time.

MR. GOLDEN: Dr. Harp, thank you very much. You have been very helpful. I appreciate it.

THE COURT: We will take

a ten minute recess.

---Short recess

---Upon resuming after recess

THE COURT: Mr. Heintzman?

CROSS-EXAMINATION

BY MR. HEINTZMAN:

Q. Thank you, My Lord. Dr. Harp, when you were discussing with Mr. Golden the nature of archaeology, I discerned the two types of work which archaeologists do. One is to dig up artifacts, look at them on the one hand, and on the other it is to analyze, interpret and make publications with respect to these artifacts; is that a fair division of your profession?

A. Yes, sir, I think it is. I would simply add a slight stress, in my opinion -- there are some who share this and some who don't -- a good archaeologist is, first of all, a field technician, in the sense of gathering accurate information, but if he's no more than that I do not think he is worth his salt because to me an archaeologist must be an anthropologist with some understanding for the broader aspects of human culture. We have to be able to use this material, otherwise we are loading up museums with a lot of junk.

Q. That was the point I was going to make. There is not much point to go to one of these sites, on Schultz Lake, and prowling -- I should not say not much -- there may be a great deal prowling around and coming up with artifacts, but the real key to your profession is interpreting them based upon looking at them, but a vast background and other work that's been done in the same area and in other areas, and in this case the Arctic?

A. I think that is a good explanation.

Q. That brings me to my next point, and that is in interpreting the artifacts that you find and other archaeologists find. I would like to review with you the kinds of things you rely upon in order to make sense of them. First of all, you would rely upon findings made by other archaeologists in the same site or in the same area?

A. Yes.

Q. And secondly -- I think you went into this in some degree -- artifacts found in other areas which bear similarity or dissimilarity which will give you clues to what you're looking at in this

particular area?

A. Correct.

Q. I think you gave us an example of that, when you were comparing what you found in order to come up with a Thule derivation for those based upon what other archaeologists have reported in other areas?

A. Yes.

Q. Would another tool that an archaeologist should have regard to is what I would call the environmental or ecological information relating to the site that he's examining?

A. Yes, I think that is an important consideration.

Q. And you mentioned two -- what I would have thought were almost vital factors in that regard -- in the Arctic and particularly this area of the Artic -- first of all the caribou. Would that not be probably the most environmentally significant fact relating to human existence on the Barren Grounds?

A. I think that would be a perfectly clear statement, yes. It is a major -- these herds were so extensive, so plentiful that they were a major food

resource that could be exploited with relative ease and predictability. Very important.

Q. In fact --

A. I cannot think of any other reason for living in the Barren Grounds.

Q. Is it the pivotal point for the people who live in that area?

A. I think so.

Q. Is that correct?

A. Yes.

Q. And the understanding of the movement of peoples, would you agree with me, that archaeologists agree that the migratory patterns of the caribou are something one should have regard to?

A. Yes, I would think that's quite vital. No more than --

Q. Yes.

A. May I just add: vital but no more vital than similar knowledge of other animal species that constitute major food resources. This is part of the hunter's cultural knowledge and understanding of his environment.

Q. But in the central barren grounds, would you not agree with me, that the caribou -- particularly in prehistoric

times -- assumed an importance which diminishes all other animal life to relative insignificance?

A. I guess I could accept that statement.

Q. The other environmental factor which you also mentioned is the question of weather and temperature. Would you not agree with me that changes in climate, changes in temperature, particularly in such a severe environment, can have very significant effects upon living patterns of human beings?

A. Yes, indeed they can, particularly if they represent prolonged trends.

Q. Yes. And this could affect relocation of animal life and human habitation?

A. Conceivably.

Q. Another factor which I suggest that archaeologists have regard to in coming up with a sensible explanation for what they find, is actual human observation of people in that area. For instance, you mentioned Rasmussen who was an explorer and found people in the Barren Grounds in the 1920s. Now, that is something we can look to from an archaeological

point of view; would you agree with that?

A. Yes. May I add a bit to the idea?

Q. Yes.

A. The Arctic natives -- the Inuit, Eskimos -- are again fairly unique -- or at least outstanding in another respect, and that is over the total period of the occupancy of the Arctic there have been relatively insignificant changes in their cultural adaptation. Mind you, it hasn't been perfectly static, but still for long periods of time this has been a uniform type of cultural exploitation. This indicates great cultural stability and conservatism on the one hand and it also indicates relative stability in the surrounding environment. This enables us, in many instances, to make direct comparisons between prehistorical past and practices we see among living people today in the same area. We can draw many analogies through this kind of comparison. It helps our interpretation of past cultures.

Q. That kind of continuity would also be true, would it not, of other peoples living on the Barren Grounds not being of Eskimo derivation?

A. I am not quite sure I

follow you.

Q. Perhaps we will come to that later in the discussion. You will agree with me that evidence of explorers who have been to the particular area is of assistance to us in arriving at conclusions about the occupation of land?

A. Yes. Some explorers more than others, of course.

Q. And another factor I would submit to you is a major factor in determing occupation trends is like linguistic trends; would you agree with that?

A. I am not an expert in linguistics in any field, and certainly not so for the Eskimo people. I must be very cautious in what I say here.

In my elementary studies of language, I understand languages changes and shifts over periods of time -- all languages do -- and that is how ultimately new dialects or tongues or language families are born -- come about -- even as we have seen take place in our own language from the time of its Indo-European origins. I understand that some changes of this nature have taken place among Eskimo language. Also, we see at least a fundamental dichotomy between the Eskimo dialects

of western and southwestern Alaska, which constitute the kind of subfamily, as opposed to all of the other dialects that are spoken from northern Alaska across the Arctic all the way to Greenland which is the second subfamily. It's just the separation of those two that indicates something about changes that have occurred in the last several thousand years and the separation of the people involved speaking these different dialects. It's about as much as I can say about it.

Q. Well, isn't the similarity of the various Eskimo dialects across northern Canada one of the strongest factors in the theories relating to the derivation of the Thule culture?

A. Yes. It is cited as a derivative of the Thule movement out of Alaska, sweeping into the central and eastern Arctic and then the reverse. Usually this latter day uniformity that we see so widespread through Eskimo culture is largely attributed to that common Thule stem, if one makes proper allowances for subregional differences that have developed since that time.

Q. We will come to this

in a moment. Is not linguistics the tool that you, in fact, used in arriving at the conclusion that the people living in the interior barren grounds -- which I will call the Caribou-Eskimos -- were derived from the Thule people? Wasn't that probably the strongest piece of evidence that you relied upon for coming to that conclusion?

A. No, I wouldn't say so. Mr. Heintzman, I mentioned it in passing, as I recall, more by way of inference I think and not -- because I am really not -- I don't know enough about the linguistics picture to contribute anything important to it.

Q. Was it one of the factors you relied upon?

A. I did mention the fact that their dialect was related to the general Inupik group or subfamily in the central and eastern Arctic. This has been established by other people, not me.

Q. That is a significant factor in correlating the one group with the other?

A. Yes. I would say it is as significant perhaps as other factors.

Q. Now, during the

course of your examination you were about to launch into the other people who lived in this area before Mr. Golden cut you off. That is what I would like to talk about. The other people who lived in the central barren grounds are of the Plano-Indian historical family. Is that correct?

A. We think so, at the very earliest time levels. Yes. We don't use that name to cover the whole expression of Indian utilization of the Barren Grounds.

Q. Is there a name that we can use to save us some time to cover that whole --

A. No.

Q. -- Indian tradition in the central barren grounds?

A. No. I wouldn't feel safe in trying to subsume all these things under one name. We do distinguish an early Plano tradition which relates to events that occurred earlier farther south, and I think we see here a movement of peoples northward into Canada following the deglaciation of that region. The first evidence there relates to these Plano people. We see that evolving slowly over centuries of time in northern boreal forest Canada into what is

commonly known as the Archaic Stage of new world Indian culture. This is, as far as I am concerned, a simple outgrowth of the earlier Plano tradition.

The Plano tradition, as we know it elsewhere in the continent, relates more to grassland exploitation -- hunting in Pleistocene times of large game animals on the grassy plains.

Q. The buffalo?

A. Or the ancestral specie, yes.

Q. Yes?

A. Whereas the subsequent Archaic Stage, following upon deglaciation in northern Canada, represents an increasingly effect adaptation to forest life.

Q. Yes.

A. And out of that we can, more or less, trace with some confidence the derivation of the modern day or recent Algonquian speaking Indians of the boreal forest-- people like the Cree or the Chipewyan or the Athabascan -- they represent the sort of end point of this.

Q. So, if I use the

word Chipewya or Chipewyan to describe the end point, we are talking about cultures that have led up to that culture in the same way that the modern Inuit culture might be derived from the various cultures you described?

A. I believe so. There are gaps in the story but it seems to be a reasonable assumption.

Q. So, the history of the Baker Lake area, I would suggest to you, and as demonstrated by your findings, starts with the existence of these people, the Chipewyans and their ancestors in that area; is that not correct?

A. I wouldn't -- well, yes, I would rather say the history begins with these -- the exploitation of the Plano like Indians or the earlier Paleo-Indians. I would not want to talk about Chipewyans at that point.

Q. Paleo-Indians, how long can we trace those people back, if we call them the original peoples of this area?

A. Well, I had to do it largely by inference since I had no carbon dates. These have since been

obtained in the area. As I am sure you will know, Dr. James Wright, of the National Museum of Canada, went into Aberdeen essentially on my recommendation, I guess, to excavate fully one important cluster of sites there. He did, indeed, find very remarkable early Plano like remains with dateable materials of the site. So, we have some pretty firm dates on there indicating there was an occupation that goes back -- how far is it -- five thousand years B.C., in that general order of time.

Q. So, the Plano-Indians were in Aberdeen Lake we now know about 5000 B.C., long before any modern day Eskimos or their predecessors, Is that correct?

A. Yes. I would have to qualify that a little bit and say they had a limited presence there. Yes.

Q. Well, we don't know how limited or unlimited it was, do we, with any degree of certainty?

A. Well, I think we can make a reasonable inference. Without total proof, it seems to me they were in there. They were positively there for the purpose of hunting caribou. Their camps were found in one of the major crossing places in the country. To me, this imposes

a pretty strict seasonal time schedule on this kind of operation.

Q. This is what we see in subsequent years, is it not, that the Plano-Indians and their descendants, leading up to the Chipewyans, are coming up through the barrenlands into the Baker Lake-Aberdeen Lake area hunting caribou?

A. Yes.

Q. Can we not see, from your map, the direction of which they were coming -- because we have the sites down in Grant Lake, we have the sites that you have identified through Beverly Lake, Aberdeen Lake, into Baker Lake -- that these Plano-Indians were coming from a southwest to northeast direction into the area we are concerned with?

A. Yes, that's approximately so.

Q. Do we not know that the herds that they were probably hunting what was we now call today the Beverly Herd?

A. I guess that's a reasonable inference, yes. May I ask if you are basing this on Dr. Gordon's work up there? The differentiation that you are

speaking of of the four major herds across the area?

Q. Yes. His work of Men and Herds in the Barren Grounds Prehistory; you are familiar with that, sir?

A. Yes.

Q. He was able to discern, was he not, a distinct tribe, distinct herd relationship?

A. Yes. I tend to agree with that notion. I think it is viable.

Q. And it is something we can see lasting from five thousand B.C. up to -- we will get to that -- the early time of history; is that not correct?

A. It seems so.

Q. It is a pretty strong relationship between those people and that herd to last that long?

A. Yes. It certainly is.

Q. Yes.

A. But, again, we recall that this is the number one food resource in the area. Therefore, I am not surprised by this.

Q. We have mentioned two people so far, Dr. Wright and Dr. Gordon.

Both of them are archaeologists who are attached to the National Museum of Man; you are aware of that, I take it?

A. Yes.

Q. Do you accept their work as worthy of credit?

A. Yes, indeed. I have great respect for both of them.

Q. Do you accept their opinions as representing valid opinions of archaeologists today?

A. Yes, indeed. One might argue with portions of their theories, but by and large they're highly reputable men.

Q. You also mentioned Dr. Irving; is he another archaeologist?

A. Indeed, and an old time friend of mine.

Q. Has he done work in this area?

A. He has in the southern barren grounds, south of the Thelon River country, although most of his professional work has been in the western Arctic and Alaska.

Q. Was the work which he did in this particular area done in

conjunction with a man named Merbs?

A. I'm not sure to what extent. I know they were both interested in the same area at the same time, roughly. Merbs is a physical anthropologist, of course, specifically, whereas Dr. Irving is a prehistorian, like myself. I don't know the extent to which they were associated.

Q. Would you accept the opinions of Dr. Irving as worthy of credit?

A. Yes, indeed.

Q. Before we get into a discussion about some of your findings, I would like to discuss with you a little bit more about the Thule culture. It represented, did it not, quite a real sophistication of life in the Arctic which we don't see before the Thule culture arrived; do you agree with that?

A. I guess I would, except I don't particularly like the word sophistication here. I could easily say in truth the preceeding stages of culture had some tremendously sophisticated elements of culture too. Anyhow, I would prefer to say that they had a markedly new hunting specialty that they had evolved, their

ancestors had in the western Arctic. This was important in their exploitation of the central and eastern -- the whale hunting bit.

Q. They were a new maritime culture that reached a degree of economic superiority that they were able to sweep across the Arctic; isn't that correct?

A. I am sure that is a fair statement.

Q. And they had and used dogs; did they not?

A. Yes.

Q. There is not much evidence that prior cultures had used dogs; is there?

A. Very tenuous evidence that dogs were in existence in the Dorset period. I think I have a couple of dog bones from the Belcher Islands, from a Dorset site. But, I am convinced they might have had dogs which they used as hunting aids. We know for certain they didn't use dogs as traction animals to haul sledges and things as the Thule people descendants did.

Q. The use of dogs as traction animals in terms of getting across the Arctic was one of the most significant

innovations of the Thule people; was it not?

A. Yes, for wintertime travel.

Q. Now, the Thule people also developed maritime vehicles of a sophisticated degree, and I am thinking of the umiaks, large whaling vessels; is that correct?

A. Yes. It is a vessel large enough to contain ten or a dozen people, because this is a social -- a group -- a communal activity and not too easily done from single hunter kayaks.

Q. And the degree of sophistication -- I'm sorry if I use that word but it fits in with my language -- of the harpoon and other means of earning your living on the Arctic shores reached a higher level with the Thule people?

A. A higher level, yes, but the same hunting technology had existed in preceding Dorset stage.

Q. Another significant criteria of the Thule culture was their way of living in houses; is that not correct?

A. Yes, but the preceding people had lived in houses too.

Q. But the kind of houses the Thule people --

A. Different kinds -- different styles.

Q. Different kinds?

A. Yes, especially the winter house.

Q. This is one of the best pieces of evidence that archaeologists used to identify the Thule culture; isn't it?

A. It's very helpful evidence, yes.

Q. And their original derivation, the Thule people were primarily a maritime people and relied very heavily on whaling to develop their culture?

A. Yes, that's fair.

Q. If we can talk about the modern Eskimo, the modern Inuit, that you were asked about by Mr. Golden, particularly in this area we know they do not rely on whaling at all; isn't that correct?

A. Well, with the exception of white whales, the beluga, which they are a continuingly important food resource around various places around

Hudson Bay.

Q. I'm talking about the people living in the Barren Grounds; they don't rely on whaling?

A. No. Excuse me.

Q. Now, if we are talking about these two groups, the Indian and Eskimo culture living on the Barren Grounds, is it not correct that we know there was a severe antipathy between these two groups?

A. Well, such an antipathy has been reported on a number of occasions, yes. I am not -- I don't know of any evidence that demands the belief this was a constant state of warfare between the people at all. I think at times and places it probably had peaceful, relatively friendly trade relationships.

Q. Well, the early prehistoric times, just about the time that man was arriving, is not all of the evidence pointing in the direction of severe antipathy between the Indians and the Eskimos?

A. I couldn't -- no, I don't believe so. I don't know of

anything of the sort that predates Samuel Hearne's story of the Coppermine-Bloody Falls massacre. I certainly don't know -- I have never seen in the North American Arctic any archaeological evidence that would even suggest warfare between the people.

Q. Leaving aside the warfare, I understood that the name that Eskimos gave for the Chipewyans were "people infested with lice"?

A. Yes, I have read this.

Q. And obviously the Chipewyans felt the same way about the Ekimos, because their name for the Eskimos, as I understand it, is "enemies from the flat countries"?

A. Yes, I have heard that.

Q. So that's what these people called each other?

A. And one other -- the word Eskimo, it has been suggested -- it's a bastardization of the French word stemming from eastern Canada and was originally an Algonquian word -- its meaning eaters of raw flesh. That was another pejorative term.

Q. Yes.

A. What you say I believe to be true, but still that doesn't suggest warfare or genocide or anything like that to me.

Q. I am suggesting rather than warfare that when one group was occupied in one area the other group wasn't there? That's the inference that we arrive at; is that not so?

A. I think so, yes, because these people on the one hand were adapted very tightly, specifically, to life in an Arctic tundra biome and were not comfortable and didn't know how to cope with forest country. The same conversely can be said for the northern boreal forest Indians, where they were adapted to a forest environment and were not the least bit comfortable one hundred miles out into the open tundra. They didn't know how to cope with it.

Q. Well, we know that Chipewyans and their ancestors came above the treeline right up into Aberdeen-Baker Lake area?

A. I regard these as brief seasonal sorties; hunting sorties.

Q. While the caribou were there?

A. I would think so.

Q. Can we not conclude that while the Chipewyans were there hunting the caribou that it is unlikely that the Eskimo people or their ancestors were at the same campfire?

A. Yes, I think that's fair.

Q. All right. In fact, as you have already related, Mr. Hearne in his travels -- I understand that occurred around 1770; is that correct?

A. As I recall it's the early seventies. He made a couple of trips. I'm not exactly sure of the dates at the moment.

Q. We will come to that in a moment. He relates in his stories of a massacre by the Indians of the Eskimos at the Coppermine River; isn't that correct?

A. Yes, at Bloody Falls.

Q. And, in fact, he relates his journey going to Coppermine, they meet more groups of Indians and say, well, great stuff, we are going up to massacre

the Eskimos. That's what it comes down to; doesn't it?

A. The suggestion is definitely made, yes.

Q. And he relates another massacre at Napp's Bay in 1756; do you recall that?

A. No, I'm sorry I don't. It has been quite a few years since I read Hearne. I am a little hazy on some of the details.

Q. Before we get to your findings, I want to step back and look at the way archaeologists look at Eskimos and their history -- or their prehistory, before you wrote what I think is regarded as a breakthrough article in 1961, namely that it was thought by some people at that time that the Eskimos came from the interior of the Barren Grounds and moved to the coast, rather than vice versa; have I correctly described the archaeological thought at that time?

A. I think the most prominent theories about Eskimo origin as of that period, prior to the Fifth Thule Expedition, were propounded by several Danish scholars -- who were linguists

and ethnographers, more than archaeologists, in fact -- they were the ones who proposed this kind of theoretical structure. These were the ideas that Birket-Smith learned as a young university scholar at Copenhagen. Willie Millie continued to use his operating theory when he did his work in the Barren Grounds. He created certain alterations. But, unfortunately on that same expedition, while he was in effect continuing to support these old theories -- the interior origin and he elaborated upon them -- his good friend Mathiassen was discovering new evidence of earlier Eskimo culture -- the Thule people -- and was able to relate this stuff back to Alaska. So, western origins were thrown into the picture, you see, as a counter theory.

Q. Arising out of Mathiassen's articles and your research, the whole picture has been reversed, has it not, instead of the central barren grounds being the source of the Ekimos, we know now they came from the coast, and, in fact, from Alaska?

A. That's what we believe, yes, the forebearers; ancestors.

Q. And that was

rather a revolutionary change of ideas; was it not?

A. Yes.

Q. So that instead of the people living in the interior -- what I call the Caribou-Eskimo -- being a remnant, as Birket-Smith thought, of an interior Paleo-Eskimo culture, in fact, they are derived from the coastal people and somehow made their way inland; isn't that correct?

A. That's what I believe, yes.

Q. In fact, that was the whole thrust of your article in 1961?

A. Yes.

Q. Isn't that correct?

A. Yes.

Q. Now, I would just like to review with you some of the work that has been done since you turned the coin around in 1961 on the same sites. Now, down here on Grant Lake, which I believe is -- where?

A. Let's see. It is over in here. There it is right here.

Q. We don't have that marked for some reason. Over here just above --

A. Excuse me. It is outside the boundary line that's drawn here. Is that significant for some reason?

Q. Not to me. We have Grant Lake on the very far left-hand side of the -- that is one of the sites that you worked on; is that correct?

A. I visited it briefly.

Q. You did two diggings at the north end of Grant Lake. Is that correct?

A. That site was discovered in 1955 by a friend of mine, who is not an archaeologist but who is a canoeist, and he was making a trip down the Dubawnt -- Arthur Moffatt from Vermont -- and he discovered that site, among others -- althoughhe lost his life a few days later in some rapids below Marjorie Lake-- his collections were brought out and turned over to me. As a matter of fact, I had promised him that I would be happy to look at anything he brought out and examine it before we return it back to Canada -- the government. So, I did. He just surface hunted and brought back a few specimens. This is what aroused my interest in the place. So, in 58, when I was up here on

Schultz Lake, my old friend, Dr. Miller, from 19 -- with whom I had made a flying trip to Coronation Gulf in 1955 -- he popped up to visit me for a week or so in his plane. So, we flew to Grant Lake and I spent several hours one afternoon there, again, surface hunting the site and examining it a little more closely. It was on the basis of that new information that Dr. Wright got interested in it and went back and did some systematic excavation in monograph, which I suspect you have over there.

Q. Yes. We have your work at Grant Lake. We have Dr. Wright's work, and that is done under the book The Grant Lake Site?

A. Yes.

Q. It's by J. B. Wright; you are familiar with that?

A. Yes, sir.

Q. Do you accept the conclusions that Dr. Wright arrived at in his analysis?

A. Yes, I do.

Q. And then on the same site --

MR. GOLDEN: I wonder

if my friend ought not to refer to a certain conclusion if there is more than one so the witness doesn't have to refer to a double meaning.

THE COURT: It will give some meaning to me if I understand what they are.

MR. HEINTZMAN: I will come to each of them in turn, My Lord. I thought we better identify the locations before we get into the specific works.

THE COURT: I assume from the positiveness of Dr. Harp's acknowledgement that he is indeed familiar with the work and has it in mind.

THE WITNESS: Yes.

THE COURT: Without having the specific conclusions suggested to you?

THE WITNESS: Yes, My Lord.

BY MR. HEINTZMAN:

Q. And Dr. Brian Gordon also did some work on Grant Lake, at a site which he called Migod. Is that correct?

A. Yes. I believe it was Wright who discovered that site and determined whether it was important enough

to go back for intensive work. Yes.

Q. Both of those sites are at the north end of Grant Lake?

A. Yes, sir.

Q. And then at the Aberdeen site it was the same one as one of your sites that Mr. Wright went back to to do some further work. I think you mentioned that?

A. Yes. Let's see. Where are we? Well, it is up in this country up here. Those particular sites are not marked on this map.

Q. Do we not have all the sites you worked on on this map?

A. No. We don't have all of the Beverly Lake sites which are back in through here. Could you tell me, please, which one specifically you are referring to?

Q. Well, let's just look at the monogram, the Aberdeen site by Dr. Wright. He describes it as your AL7 on page 3.

A. Yes. That shows on the bottom map here -- actually it is on the narrows, just above the western end of Aberdeen Lake. I don't know where one lake

stops and the other one begins in there. It's quite arbitrary about the naming system. But, that is the particular site. It is opposite a long stretch of narrows that goes for a couple of miles, then there is a sizable island in the middle of this narrows. It is a very heavily used caribou crossing. There was a heavy concentration in prehistoric sites on both sides of the narrows at this -- in this particular area.

Q. Can you tell me why that site isn't shown on the plan?

A. No. I just suggest it is a minor oversight.

Q. Well, you had a number of sites also on Beverly Lake that you investigated; is that not correct?

A. Yes, sir.

Q. Are any of those pinpointed on the map?

A. No, I don't see them. They would be down here south of here, according to this map which we show here, which is incorporated in the Affidavit.

Q. Do you know why they have been left off this site?

MR. GOLDEN: The map was totally prepared in our office and obviously

is an oversight. If you want them on, we will put them on.

BY MR. HEINTZMAN:

Q. Could you arrange with Mr. Golden, Dr. Harp, to put on the other sites that are not on the map?

A. Yes.

MR. GOLDEN: I will arrange it.

BY MR. HEINTZMAN:

Q. Just to touch on some other works that's been done in this area, before we get into your work, are you familiar with the work of Brenda Clark who's done some work down near Rankin Inlet?

A. Yes, I am, but not in as great detail perhaps as I am familiar with some of the other people. I do know that she's worked in Rankin Inlet with Dr. Linnamae.

Q. Have you read her monograms?

A. I haven't read them as carefully as I've read some of the others, no. I may not have seen anything very recent that she put out, but I am roughly aware of what she has done.

Q. She has published

through the National Museums of Canada the development of Caribou-Eskimo culture?

A. Yes.

Q. Have you read that?

A. No. I have a copy of it at home but I have not read it.

Q. Then in the same area Dr. Irving has done some work. Are you familiar with his article contained in Science, History and Hudson's Bay?

A. Yes, sir.

Q. It is a relatively short article. Do you accept the statements made by Dr. Irving in part two, The Barren Grounds?

A. Yes.

MR. GOLDEN: Perhaps my friend -- I would ask my friend not to do that. Perhaps I should ask that he not do it anymore, in spite of this witness's obvious keenness and awareness. I think it is bad for all of us that a witness be asked a general question, do you agree with all of his conclusions, because he may very well be unaware of something that was said in that article that he would not be in agreement with. He is asking him to do a quick total

instant analysis. I don't imagine there is any more of a witness capable of doing that but Dr. Harp, but --

THE COURT: I must confess I am disturbed and worried about this. I am not for a moment doubting Dr. Harp's expertise and full knowledge. I have rarely met anybody blessed with such total recall as he really inferred or implies in those answers. I don't think we are being very fair.

BY MR. HEINTZMAN:

Q. I will come back to these reports later, but I just want to sketch who's been working where before we get to the more detailed analysis. Are you familiar with the work of Mr. Burch in the same area?

A. Yes, sir. I am familiar with Dr. Burch's work. He was an old student of mine. I have followed his career closely.

Q. Does he hold a doctorate in anthropology?

A. Yes, sir.

Q. From the University of Pennsylvania?

A. Is it Penn or is it Yale?

I honestly do not know at the moment.

Q. I think it is the University of Pennsylvania?

A. He went to Princeton as an undergraduate. I took him into the field with me in 1962 to Newfoundland. He learned his first field archaeology. An excellent man.

Q. Is he considered to be a man of repute in his field?

A. I believe widely, yes. I certainly regard him as one of our brighter, more intelligent younger scholars.

Q. Are you familiar with the work of Dr. McGhee of the National Museum of Man?

A. Yes, sir.

Q. In tracing the origins of the Eskimo peoples?

A. Yes, sir.

Q. Do you accept him as a man of repute in the field of archaeology?

A. Unquestionably. Dr. McGhee is highly thought of in the field. In his case, as with Dr. Burch, that does not mean I necessarily agree with everything he wrote.

Q. I appreciate that.

Now, one of the groups of sites that you were able to determine when you were working in the Baker Lake area, you classified as complex A. Do you recall that?

A. Yes, sir.

Q. They consisted of four sites on Baker Lake?

A. May I refer to my booklet here?

Q. Yes. You refer to anything that will help you.

A. Yes.

Q. They are on the west end of Baker Lake?

A. Lake 16, 17, 14 -- yes.

Q. The next complex of sites you classified as complex B?

A. Yes.

Q. Is that correct?

A. Yes, sir.

Q. And you found one site at the Grant Lake, seven sites on Schultz Lake and four sites on Beverly Lake?

A. That seems to be correct.

Q. Is that correct?

A. Yes.

Q. The next group of sites you were able to put together was called by you complex C. Is that correct?

A. Yes, sir.

Q. You had three sites on Aberdeen Lake, two sites on Beverly Lake and one site on Grant Lake. Is that correct?

A. Yes, sir.

Q. And the final complex that you were able to put together from these sites was called by you complex D?

A. Yes.

Q. Is that correct?

A. Yes.

Q. They involved three sites on Schultz Lake, one site each on Beverly, on Aberdeen and Baker Lake?

A. Right.

Q. If we start with complex A, your opinion was that those sites related to people being there from the pre-Dorset culture. Is that correct?

A. May I say something about the notion involved in these complexes?

Q. Certainly.

A. This is just a classificatory device that I used to categorize

some of this information -- some of these data -- in a manageable group, and it has really no archaeological or cultural or any other kind of significance. It is an attempt to bring some notion of order and relationship into these diverse collections of information from various sites. So, there is nothing sacred about these complexes in culture terms. I regard them solely as a stepping stone on the way to some other level of interpretation. They have no cultural significance, no temporal significance worth talking about.

Q. I don't understand.

A. It's simply an attempt to relate -- in each site, for example -- archaeological site, it may be said to produce an assemblage of artifacts when you have excavated this site, and when you go and analyze this collection of materials -- this assemblage -- you try and determine the function of these tools -- you describe them, the attributes of each of them and classify them into groups -- all of the paring knives here, all of the meat hooks here, so forth, so on. It is just an attempt to order this knowledge so you can do something more useful with it by way of interpretation. That's what is going

on here. I am trying to pick out of this mess certain groups of sites which appear to be more closely related to each other than they are to some other grouping, hoping that out of this we can achieve some gain toward cultural identification later on.

Q. So, taking complex A as an example, you found on each of these sites sufficiently similar artifacts that you were able, with some degree of probability, to put them into one group?

A. I hope this was the case, yes.

Q. Once you had done that you then looked around to other archaeological sites, other opinions by other archaeologists, other articles to try to find out where and into which culture these artifacts fitted?

A. Yes.

Q. With respect to complex A, your decision was that they fitted into the pre-Dorset culture?

A. Yes. Did I state this later on? I was trying to identify these, yes. Yes. I emphasized the possibility of whaling among these sites -- or suggested this as a related observation.

Q. Am I correct that you found that complex A related to pre-Dorset occupation?

A. Yes. Not a strong suggestion, mind you, but definitely a suggestion.

Q. And that you dated the time when the people were probably there as somewhere between 1000 B.C. and 700 B.C.?

A. Yes.

Q. Is that correct?

A. Yes. Even though there is a lot -- I don't regard this as terribly strong argument, yet I advanced it with some confidence because -- I lived for a year in Copenhagen on a Senior Research Fellowship with my family, had an office in the National Museum, and I had all of these collections over there with me -- therefore, all of the key Danish scholars were right there looking over my shoulder all the time -- including Dr. Jorgen Meldgaard, who's name I mention here -- he corroborated some of these thoughts -- they didn't always agree with me, mind you, but with their support I could be more confident about this.

Q. Well, we are dealing with imponderables to some extent;

aren't we?

A. Very much so.

Q. Let me just ask you a question about that particular complex. You found it was probable that these people were merely coming inland for periodic periods of occupation, probably seasonal periods of occupation; is that correct?

A. Yes, I would think so. May I add something? If you will recall when I very briefly described the pre-Dorset stage earlier in the morning I mentioned the fact that it seemed to be -- on the basis of our present knowledge -- most frequently oriented towards the interior and less so to coastal environment. Therefore, this struck me as an interesting occurrence because it placed some of these people down here on the beaches in a position where they might have been able to carry on some sea mammal hunting, as well as at other times of the year hunting caribou right at the back door.

Q. Well, do I understand your finding was that it was probable these pre-Dorset people were in there on a seasonal basis to hunt caribou?

A. It's hard to say really. It is hard to be so confident about that, because in the spring the customary herd migration moved right across that section of the lake, and clearly it would have been a good time for them to be there.

Q. Is that the most probable lengthened period of occupation?

A. Yet at the same time there might have been a school of white whales -- beluga -- swimming off the lake, or seals because they were known to frequent the lakes in sizable quantities in earlier years. So, it is a complex situation. It might have swung either way or both ways at different times of the year.

Q. Would you just turn and look at page 62 of your article?

MR. GOLDEN: Perhaps we can have it made as an exhibit at this point?

MR. HEINTZMAN: I have no objection.

THE COURT: I think it has been referred to so extensively that we are not going to be able to avoid it.

MR. GRAHAM: My Lord, I

hesitate to even rise on this point because my friend will get up and make his speeches about technical objections and things, But the purpose of my objection was not to be technical, but the purpose of my objection was this: if the article -- it is my submission that it is perfectly proper for me to put a question to an expert witness and say,"Do you agree or do not agree with certain statements or articles." On occasion I have cited from the Encyclopedia of Britannica to a witness and nobody ever suggested it to me before that the whole Encyclopedia Britannica go in as evidence. Now, what I do object to is the suggestion that the articles go in as hollis-bollis. Now, we then find in the Supreme Court of Canada something coming out of it that's being cited because it'san exhibit in the case because it's evidence of that proposition -- it is contained in there and nobody realized it was there at that time. I think it is perfectly fair for my friend to put questions to a witness, and he either agrees or disagrees. That's perfectly proper cross-examination. However, I do not agree with my friend that any work cited by somebody as hollis-bollis goes in as an exhibit. The procedure I think is quite improper.

MR. HEINTZMAN: If it is satisfactory to Your Lordship, I don't object to you having copies readily available for those portions referred to in our evidence. I think it is proper for me to refer you to the various parts of the article and say, "Do you agree with that study in 1961." I must say that I do agree with Mr. Graham that the whole article does not become evidence.

THE COURT: I don't know how on earth, myself or anyone who might be reviewing the record at a later stage can possibly understand what complex A, B, C and D are without seeing the map that is included in the article you've been talking about. That is evidence.

MR. GRAHAM: It's Exhibit C to the Affidavit, sir, as I understand it. I hope it is the same map. It is the same map.

THE COURT: It may be the same map but there is nothing, that I can see in the text, that would tell me that those are complexes -- there are five maps, figure two from page 8 of the report -- without the text -- a verbal description of what those maps are supposed to be they are just

five little maps. They are certainly not described in the Affidavit. I would like to have it in as an exhibit. I again agree and I will be very conscious of this. Again, if nothing else worthwhile comes out of this judgment there will be some remarks on ~~expert~~ evidence, the way it should be presented in this court under the Rule 482. I am very conscious of the problem that Mr. Graham has raised but I don't know how we can get around it.

MR. GRAHAM: On that understanding, I withdraw my objection. Let's mark it so you can refer to it.

MR. HEINTZMAN: May I hand the witness the photocopy?

THE COURT: Yes.

THE WITNESS: I have one here.

BY MR. HEINTZMAN:

Q. Can we prevail upon you to lend us your copy?

A. Would you like an original or a photocopy?

Q. His Lordship would like to have an original, I am sure, signed by yourself.

A. With my compliments,

Your Honour.

THE COURT: That will be I-6.

EXHIBIT NO. I-6: Article: The Archaeology of the Lower and Middle Thelon by Elmer Harp, Jr.

BY MR. HEINTZMAN:

Q. In looking at page 62, at the top where you are describing complex A you say:

"In complex A there is positive evidence of pre-Dorset Eskimo occupation around the western end of Baker Lake. The major affinities of this point to the several stages of the central Arctic Sarqaq culture, and somewhat less directly to manifestations of the same tradition in west Greenland. The extent to which this culture may have been penetrated still farther inland is difficult to determine, but at Baker Lake it existed in a context which strongly suggests seasonal caribou hunting. This is quite in accord with the

dual inland-coastal nature of most Eskimo groups, past and present, for we know that a majority of them shifted easily and frequently from the ecology of coastal hunting to that of the interior, and back again."

Do you agree with those statements?

A. Yes. I would have to say now, in light of the years -- how many years since this came out? Almost twenty years. Yes, that sounds a little glib to me now. I sometimes get carried away with my words, as you no doubt recognize.

We just learned so much more in the last twenty years that I wouldn't want to make such -- quite a flat statement. I would want to qualify a bit more perhaps. I think I was enthused by all of the caribou movement signs right around this part of the lake. Without thinking further about it, this seemed to me the primary activity that was going on at all of these sites -- caribou hunting.

However, at the same time I would have to recall that Baker Lake was also useful as a seal hunting and whale

hunting area -- small whales.

Q. Let's turn then to complex B. So Your Lordship can catch up with us, the sites referring to complex B are found on page 44, Your Lordship. If Your Lordship looks at the top of the page you will see Dr. Harp has listed the sites Grant Lake-Lower and then Schultz Lake 2B, Schultz Lake 5, Beverly 8, etc. Is that correct, Dr. Harp?

A. Yes, sir.

Q. Your findings with respect to that complex were that they related to northern Indians?

A. Yes, sir.

Q. Is that correct?

A. Yes.

Q. On page 52 you talk about complex B in the middle of the page and say:

"The affinities of Complex B are to be found in the interior, through a chain of sites that stretches from the High Plains area in the northern United States up into the present boreal forest country of central Canada, through the Yukon

and Northwest Territories (District of MacKenzie), and down to the Arctic coast."

A. Correct. These are the ones -- this is the Plano-Paleo Indian tradition.

Q. Talking about people coming from way down below the forest up into this area?

A. Not necessarily.

Q. I mean originally?

A. I think they might-- We don't know much about the forest as of that time. As I suggested to you earlier, these cultures, the Paleo-Indian cultures, were oriented to grasslands or hunting mainly in the south, southwest, High Plains and, then, subsequently farther north when this cross over was made by some of them for caribou hunting. I don't know how direct that relationship was, but it certainly is a comparable kind of economic exploitation -- herd hunting.

Q. Continuing on further with that complex, but turning over to page 55, the end of the first paragraph, where it's talking about that complex, you say:

"Furthermore, as no substantial trace of the Keewatin lanceolate

type has been found in other directions, I believe it can reasonably be suggested that we have evidence here of a trait diffusion from the High Plains of the northern United States deep into the central barren grounds almost as far as the shores of Chesterfield Inlet and Hudson Bay. It can also be inferred that this resulted not from a year-around occupation of the Barrens, but rather from a series of summer sorties into that country."

Is that correct?

A. Yes, it says that.

Q. Do you still agree with that?

A. Well, again, I am sure it is a little more complicated than I have made it out to be. I guess I agree with that essentially. Again, the main problem is the gaps in the archaeological records. In fact, it is very difficult to trace out through archaeological evidence and geographic, continuing them running from the High Plains up to what are now

the central barren grounds. We had little thought -- nodes of interest and data that are strung out through a few sites.

Q. Strung out from southwest to northeast direction?

A. Yes. It is a pretty good inference but it's stretched out too.

Q. That's all we have got to work with in the field of archaeology?

A. I'm afraid so. In this instance it's more tenuous than other cases.

Q. And we find this on several sites in the Baker Lake-Aberdeen Lake-Beverly Lake area?

A. Yes.

Q. All right. Then turning to complex C, and that's on page 56, you say at the beginning of complex C:

"If Complex B is typified by some association with the early Archaic Stage of New World culture, Complex C appears to be an inland tradition of the later Archaic Stage."

Do I understand what you are saying is that complex C is a later addition

of the same Indian plain culture coming north?

A. I believe so. I think it is safe to infer that it's simply an evolutionary outgrowth of the earlier culture stage in that general region. It constitutes more explicitly than we have seen before this new adaptation to live in the forest environment.

Q. At the bottom of page 57 you make the same point onto page 58 where you say:

> "This widespread evidence suggests that Thelon Complex C represents a movement into the central barren grounds of a caribou hunting culture that was in some way distinct and separate from Complex B. As in the case of Complex B, it appears to have had basic affinities with a series of northern culture complexes that were adapted to bison hunting on the Canadian Prairies, caribou hunting on the tundra, and which probably could succeed equally well in intermediate zones of taiga."

A. Taiga. That is a Siberian

word which relates to boreal forests -- open boreal forests.

Q. Continuing on:

"Judging from the ages of its immediate antecedents lying to the west and south, as far as they can be recognized at present, Complex C appeared in the Thelon country at a later time in Complex B."

A. Yes.

Q. Are those observations by you still correct?

A. To the best of my knowledge.

Q. Then dealing with complex D, which I believe was the complex relating to the Thule culture. Is that correct?

A. Yes.

Q. It's at the top of page 58 that:

"As noted before, this grouping of sites lack the relatively sharp definition that characterizes the other complexes in the Thelon area. There is no strong core of culture traits that units it,

but rather a series of anomalies that suggests its separation from the others. The problem of its identity, whether single or diverse, can only be approached through analysis of the several peculiar elements which seem quite unrelated to the other complexes."

A. I am speaking there of the difficulty of doing much worthwhile analysis with the stone tool materials from these sites. You see, that was hard to get to. Normally, many Thule sites in the Arctic are loaded with bone and ivory debris of one sort or another which are very helpful in this classification process. But up in these sites in the Barren Grounds, with no organic material, therefore, all this crude stone stuff was hard to get at, except for a few anomalous traits, plus architectural information from houses, so forth and so on, which I go on to mention.

Q. Are you saying --

A. I am not changing my mind.

Q. But are you saying that the conclusions that you can draw with respect to

complex D are more tenuous because of the nature of the evidence?

A. No, I wouldn't say that. I do not believe that. I believe this is just as good a logical construct as the others, if not better, because we have other kinds of information to supplement weak stone tools.

Q. If we turn on to page 60, you say at the bottom in the last two paragraphs:

"In the light of these observations, I think we may confidently suggest that the nangissat ..."

-- stopping there, that is the stones that Thule people used to play a game on?

A. Yes, these particular people.

Q. "... were associated with the Thule culture. Furthermore, as additional scattered traits point to a penetration of the Thule people into the middle Thelon country, I think we may properly link the nangissat to their occupation there. Complex D, therefore, although lacking clear definition,

contains a positive component of Thule culture. It can be assumed that its bearers entered the middle Thelon country via Chesterfield Inlet and Baker Lake for two purposes, the fall caribou hunt, and to collect driftwood for sledge parts, kayaks, frames, etc. This phase can tentatively be dated from A.D. 1200 to 1400."

Is that correct?

A. Yes, sir.

Q. So again we see with respect to these people that their occupation was not continual but seasonal for the purpose of caribou hunting and collecting driftwood; is that not correct?

A. As I saw it, yes. I inferred driftwood here because they were virtually back in on the edge of the driftwood country. The beaches of Beverly Lake are loaded with driftwood. Most of it is trapped there. This is material that floats down from Thelon to the boreal forests. Most of it is trapped on the Beverly beaches and in the narrows. There are a few sticks in Aberdeen. However, below

Aberdeen I never saw any driftwood at all.

Q. Yes.

A. So, this was an important resource, you see, for the coastal people, and one that wasn't too difficult to get back into.

Q. Just stopping there for a moment, what we then have is use of the Barren Grounds up to and including the Baker Lake-Aberdeen Lake area by the Indian cultures, up to approximately 1000 B.C.?

A. Yes. I guess that is supported by Wright's findings at the Aberdeen site, where he's finding occupation closing off about 1000 B.C.

Q. Then we have a period of use of this area for three hundred years in the pre-Dorset times?

A. It seems to be.

Q. Is that correct?

A. Yes.

Q. Then a disappearance of the Ekimo peoples again from this area until 1000 A.D. -- sorry, 1200 A.D., the time of the Thule people?

A. That was --

Q. And the use by that area again by the Plano-Indian cultures?

A. The archaic people so-called.

Q. Yes.

A. That's the way it seems to be, right.

Q. One of the significant things that you found -- or failed to find was the complete -- what was the Dorset culture in this intervening period between the pre-Dorset occupation and the Thule occupation?

A. True. I don't know the true significance of that fact, but it is absolutely certain that the country covered in this survey we saw no sign of Dorset. I wasn't particularly surprised by this, because up to that time every Dorset site that we knew about was coastal site -- a strong coastal orientation. It wasn't until some years afterwards that the interior Dorset sites were found and investigated by Dr. Taylor up in around Ungava, up around Payne River.

Q. So, the other conclusion that can be drawn, whatever group we are talking about up until this time, their occupying these lands on a seasonal basis, coming in and going out?

A. That seems to me to have been an absolutely fundamental aspect of these northern people's lives.

Q. Right.

A. You cannot sit in any one place and expect to subsist on a twelve month around calendar basis. You have got to move for seasonal exploitation.

Q. The other thing that you concluded was that insofar as the Caribou-Eskimos -- that is the people who were analyzed by Rasmussen and Birket-Smith -- they were, in fact, derived culturally from the Thule people?

A. Well, culturally I think one can say these people expressed basic continuity of Thule-Eskimo culture, except for whale hunting, or particularly strong emphasis on any kinds of sea mammal hunting. But, I am not prepared to believe -- I don't know of any evidence -- aside from Birket-Smith's monograms which state flatly they never hunted sea mammals -- I just don't believe that.

Q. Turning to page 66, the thrust of your report was, were these people who I now find living in the interior -- that is Birket-Smith found living in the interior. Where do they come from?

A. I thought they came -- I still think they resulted from an interior movement up Chesterfield Inlet-Baker Lake and Thelon.

Q. From the coast?

A. Yes.

Q. That's page 66.

A. Mind you, I know there are opposing views on this matter.

Q. We will come to those in a moment.

A. Okay.

Q. But at the top of page 66, after discussing Proto-Eskimo theory that the Eskimos had come from the Barren Grounds and gone outwards, starting with the paragraph:

"Thus, I contend that the Eskimo practice of such a dual economy has always been confined to a relatively narrow zone of tundra stretching along the Arctic coast, and that there has never been in the New World a Proto-Eskimo stage which was totally interior-directed and which shifted eastward along the treeline. This argument it follows that the Eschato-Eskimos, characterized as Proto-Eskimos who left their original interior environment and advanced to the sea, did

not exist."

In other words, you are throwing out the window all of those older theories?

A. Yes.

Q. "... also, from this point of view the Caribou-Eskimos are bereft of Proto-Eskimo ancestry. But if they did not in fact derive from such a stage, whence did they come, and who were their forebearers?"

The answer to your question is they came from the coast, the Thule people.

A. That's essentially it, yes.

Q. Is that correct?

A. Yes.

Q. And your conclusion is that they are not derived from a people residing and living in the interior?

A. Yes. Certainly not people -- this is a delicate point, I understand -- certainly we are not talking about people who did not reside in the interior all the time -- twelve months of the year.

Q. Yes.

A. They came from coastal

people, who were ancestral Eskimos.

Q. Right. But I would like to do with you then is review the articles that have been written since your revolutionary article, if I can call it that, in 61. I want to go through them individually, and at the end try to put them together.

Before I do, I want to refer you to Mr. Hearne's travels in the interior. Samuel Hearne's travels took him on three trips to the Barren Grounds. Is that correct?

A. I only remember two at the moment. Let's see. He sorties out of Fort Churchill and this was all in looking for the Coppermine. His first trip was up around Lake Dubawnt and because he dropped his compass on transit he didn't --

Q. Right.

A. Did he make another trip up in there? This is the part I do not remember.

Q. I have a larger map, but unfortunately I have written some things on it, so we may have to -- because I was trying to figure out where all these archaeological sites were. Maybe we can use it for the time being. If we can't I may have to get another copy and start with a fresh one.

THE COURT: Perhaps that other thing should come off there.

BY MR. HEINTZMAN:

Q. Now, perhaps we can show this to His Lordship after I go through this with you. What I have marked -- these are my markings -- are the sites on various rivers and sites where all of the archaeological findings have been made

A. These must be sites that Dr. Irving found back in Malton, places like that.

Q. I have marked them at the bottom. Gordon is in red, blue and green. Harp is in purple and then looks like I have you as purple again. I have tried to put on here all of the sites. Perhaps over the lunch hour if you would be so kind to see if I have got them approximately at the right location, I would be very grateful.

A. I would be glad to help, if I can.

Q. Now, what I have marked on here is, what I understand from reading Mr. Hearne's book, to be where Mr. Hearne travelled on his second expedition.

His first expedition got a few miles out of Churchill and had some

white men with him and they went back because Hearne found that he could be the only white man in the group. If there were any more everything collapsed. That's as I read it.

The second trip on the way to the Coppermine, which is way up here on the coast, took him into the area that we are talking about in this action. Is that correct?

A. Approximately so, yes. It is around the Dubawnt Lake.

Q. And there is a map at the beginning of the book. At the text, starting at page 23 he comes up to Yathkyed Lake. You might want to read that.

A. Well, I remember his approximate route in here.

Q. And we can see Yathkyed right here?

A. Yes.

Q. It's interesting that it is an Indian name rather than an Eskimo name; is that not correct?

A. I'm not sure.

Q. Anyway, he went up the west side of Yathkyed Lake, over and down the west side of Dubawnt Lake. What I would like you to do is look at that map and tell

me whether you accept, within broad limitations, the accuracy of my betrayal of Samuel Hearne's trip, or if you like to do that over the lunch hour with the aid of his journal in front of you.

A. No. I am willing to accept that as a rough approximation of his travelled route, yes. The only point I am not certain about is whether this was the first trip or second trip. That's just a faulty memory.

MR. GOLDEN: Before the witness becomes so agreeable, my friend has drawn some other circle around another lake rather than Dubawnt. I think he better not be so ready to agree.

BY MR. HEINTZMAN:

Q. Doctor Harp, you will see in his map he is showing him going around the lake to the northeast of Dubawnt Lake and just south of a river that appears to be the river flowing northeast from Dubawnt Lake. What I would like you to do, since I am sure you are more experienced in these matters than I am, to look at that map and look at the text over lunch hour and see if you can agree with me that it is the approximate location-- in that vicinity-- of Samuel Hearne's journey.

A. Can I call on some outside expert help to establish that?

MR. GOLDEN: We have it on a bigger scaled map behind. We have these areas. Perhaps it would be more helpful if we use the bigger map, which is already Exhibit P-10.

THE COURT: That's fine with me. I am not sure I remember what else is marked on P-10.

MR. GOLDEN: There is nothing marked on it. It was the background map for the tracings. The difficulty I have is that this is like a school boy's map. It is a very minor scale.

MR. HEINTZMAN: I would be most content if Doctor Harp would transpose onto the other exhibit-- the larger one-- the same line depicting Samuel Hearne's journey.

Now, the book that Samuel Hearne wrote indicates that he was in the vicinity in 1970--

THE COURT: Seventeen, surely.

MR. HEINTZMAN: Seventeen. I cannot get out of the present. He spent July and August on this particular trip in this area. It's true, is it not, that he found living in that area the Chipewyan Indians?

THE WITNESS: As far as I recall, yes.

BY MR. HEINTZMAN:

Q. For instance on page 23 he says:

> "On the twenty-sixth, all that remained of the musk-ox flesh being properly dried and fit for carriage, we began to proceed on our journey Northward, and on the thirtieth of June arrived at a small river, called Cathawhachaga, which empties itself into a large lake called Yath-kyed-whoie, or White Snow Lake. Here we found several tents of Northern Indians, who has been some time employed in spearing deer in their canoes, as they crossed the above mentioned little river. Here also we met a Northern Indian Leader, or Captain, called Keelshies, and a small party of

his crew, ..."

-- so we know when Samuel Hearne went there in 1770 he found Chipewyan Indians.

A. Yes.

Q. Is that correct?

A. Yes.

Q. Then if we continue reading through page 24, 25, he is still there in August, breaks his transom, as you will recall. Then when he's on the west shore of Dubawnt he says this on page 30:

"The day after I had the misfortune to break the quadrant, several Indians joined me from the Northward, some of whom plundered me and my companions of almost every useful article we had, among which was my gun; ...."

So, here he is up on Dubawnt Lake and he met Chipewyan Indians coming from the Northward; is that not correct?

A. Chipewyan, it seems to me, correct.

Q. When he says, "Indians", he doesn't mean Eskimos because we have some rather graphic descriptions of what the Indians did to the Eskimos from Mr. Hearne.

A. Yes.

Q. So, to an archaeologist, this is a piece of evidence that we can put into the

equation to tell us that in the late 1700's the Chipewyan Indians were living north of Dubawnt, north of Yathkyed, in areas which they had transitionally hunted for those thousands of years; is that not correct?

A. Well, yes, I guess it is. Again, I would simply want to qualify this and say they were probably up there on seasonal hunting basis.

Q. Yes?

A. In my own mind I separate this from occupancy.

Q. Well, they were occupying it seasonally?

A. Well, they were moving in and out. I don't occupy country when I go hunting in it. But, then, maybe it's too fine a point to worry about.

Q. As you told us, this is the way the people occupied land in this area if they are going to live off of it?

A. They move in and out and use it on this nomadic basis. What we don't know, of course, is just how long this endured.

Q. You mean how long after 1770?

A. Yes.

Q. You accept that the Chipewyan Indians were living in that area and to the north of it in 1770?

A. I guess we have to on the

basis of Hearne's evidence.

Q. And do we not have also to accept that if they were doing so they were living off the caribou?

A. They must have been, yes.

Q. If they were living off the caribou they were occupying the same kinds of crossing places that you visited in your travels.

A. I would expect so.

MR. HEINTZMAN: My Lord, this is a convenient time to break if I can impose upon your Lordship.

THE COURT: You are not imposing upon me. Have you any idea how long it is likely to take to read this passage from Hearne's Journals and get this onto the map? I think the witness requires the lunch hour too in addition to the work assignment that he has undertaken during the period.

MR. HEINTZMAN: Can we say two-thirty, my Lord?

THE COURT: I will probably be back in my office before two-thirty. If everybody else is here and we are ready to go a bit earlier, then, I will be ready. We will recess to two-thirty.

--- recessed for lunch

MR. GOLDEN: Before my friend continues his cross-examination, there is a question on marking of the map.

THE COURT: Yes?

MR. GOLDEN: It is my suggestion, my Lord, that we mark Exhibit P-10. Because of the scale of the map it makes it a lot easier. The map that Mr. Hearne drew is rather tortured in its dimension. It is difficult enough to pick out which lake is which route on a map of such small scale. Even on the large one it is not that easier. But, it would be easier to set it on a larger map than it would be on a smaller one.

THE COURT: Have you any comment?

MR. HEINTZMAN: I have asked Doctor Harp-- perhaps we should ask him-- as I understand it, you are satisfied with my marking of Hearne's journey on this other map. Is that correct?

THE WITNESS: Yes, sir. I have tried briefly but with the help of some experts in the room to sharpen this map up a little bit. We find we cannot do it in this short time. It is a major piece of work, even though it is a small job. We end up with one or two confusions, but by and large the routes shown here by Mr. Heintzman seems to be pretty decent-- pretty decently shown. A lot of this devolves back on Samuel Hearne, his poor instrumentation, and his inability to make accurate observations.

THE COURT: Do you think you could do any better on the bigger map?

THE WITNESS: Probably not because he refers to a few features and lakes by name

but we don't have these names.

THE COURT: I take it really it is the general neighbourhood that is really important, rather than perhaps any particular area or so on?

MR. GOLDEN: It will be important later on to have some sense as to what the distances are, Samuel Hearne travelled in an area that is not that close, really, but Greenland looks close to Alaska on this map so I did not want to argue distance based on a map, which is, frankly, more of a school boy's map than one that might be relied on for any scientific research.

THE COURT: If Doctor Harp doesn't feel he can do much better on the bigger map--

MR. GOLDEN: We can still plot the distances on the big map.

THE COURT: Okay.

BY MR. HEINTZMAN:

Q. The next journey that Mr. Hearne took, Doctor Harp, took him from Churchill which we see down at the bottom at the right hand corner of this map.

THE COURT: Again, may I suggest you hang the Arctic Islands over the top, unless we are going to get that far.

MR. HEINTZMAN: Let's do that.

THE COURT: Now I can see it, too.

BY MR. HEINTZMAN:

Q. This was from Churchill, which we see here on Hudson's Bay, and he ended up at the mouth of the Coppermine, which we can see on Coronation Gulf.

A. Yes.

Q. Then the map would indicate that he went across just north of Great Slave Lake and then up a series of lakes to the Coppermine and then on the way back he then came down across Great Slave Lake and down in the direction and back to Churchill. Have I sort of roughly sketched in the journey that Hearne took on his second trip?

A. I think that's reasonably good.

Q. Is it not correct that on that journey again he failed to see any Eskimos until he reached the mouth of the Coppermine?

A. I believe it is.

MR. HEINTZMAN: My Lord, I am wondering, for the sake of the record, whether we might have leave to mark a photocopy of the two chapters of Mr. Hearne's book relating to the voyage into the Dubawnt-Yathkyed country to which the witness has referred during the lunch hour? Is that satisfactory?

MR. GOLDEN: I think aloud I was wondering at one point in our discussion what we would do about historical documents. It is my feeling that there are a number that will be-- mostly in support of legal argument-- that we will be

relying upon. They are essentially historical documents of fact, such things as treaties, so on. When it comes to-- I am quite prepared to have them put in on any basis-- I don't think anyone can vouch for the authenticity or the truth-- all we can say is that these are writings of which almost judicial notice can be taken-- I assumed judicial notice could be taken. If Hearne's diary, in effect, is being put in on that basis then I have no concern about it being tendered-- the book being tendered to your Lordship, whatever. This witness, for example, cannot testify as to the truth of Hearne's diary any more than anyone else can.

THE COURT: No.

MR. GOLDEN: I thought we would develop procedure where that could be done easily, rather than start identifying chapters and xeroxing and having it as part of the general record. Perhaps we can agree, your Lordship?

THE COURT: As far as the Court is concerned, I am quite agreeable to any of these historical documents coming in on any basis that you gentlemen are agreed on, I hope that if we go to the Hudson Bay Company archives, for example, we will not find ourselves in the position of subpoenaing somebody from Winnipeg to prove that that's where they came from and so on, unless there is some challenge as to it being the authentic edition of Hearne's Journals.

MR. GOLDEN: Perhaps what we can do--

THE COURT: I would be glad to receive them.

MR. GOLDEN: My friends can cross-examine on it and deal with it and perhaps simply supply to your Lordship a copy of the book at some appropriate point and not mark it as an exhibit, but simply that maybe your Lordship could read it and take notice of it in the ordinary way. I will do the same with respect to any treaties or other material that we will put in, whether or not it has been put to a witness.

THE COURT: Do they come into the record satisfactorily or does that put them in the status of documents submitted during argument?

MR. GOLDEN: I would think, my Lord, that they should not be made part of the record as such. It can get very voluminous. As long as they are matters which your Lordship takes judicial notice, to deal with the diary of Samuel Hearne-- we have three editions published-- it is historical even in published editions-- they go way back-- I would treat that as a historic document and agree that your Lordship can take judicial notice of it. I think there are probably a lot of other documents in that category.

MR. HEINTZMAN: My Lord, I think it would be better for the record if we photocopied the two chapters that deal with the map that Hearne made. I would be delighted to supply a book-- a copy of the book for your Lordship, but I

do think it is easier for the record to have it done that way.

THE COURT: I am inclined to agree with that, Mr. Golden, that really the volume of the record would be reduced if we don't have the whole book if indeed only two chapters are what we are concerned with here. That would limit it. Let's limit it to what is in those two chapters.

MR. GOLDEN: We may adopt edited portions for record purposes, as well as historic documents.

THE COURT: That is presumably a bridge you will cross after. Right now, I have only academic interest in the matter.

MR. GOLDEN: Yes.

BY MR. HEINTZMAN:

Q. I will make a photocopy of that and produce it tomorrow. That will be marked.

THE COURT: Yes.

MR. GOLDEN: Which version?

MR. HEINTZMAN: Glover edition, 1958.

Q. I take it, Doctor Harp, you have not had a chance to eyeball some of the sites which I have marked on this large map of the Territories yet?

A. I have done only that. You are referring particularly to the ones in the southern reaches of the country here?

Q. Well, I have marked on

your sites and Gordon's sites.

A. Yes. The Gordon sites are over in here, and the Irving sites are over in here.

Q. Right.

A. And my sites are up in through here.

Q. So, looking south and west of the Thelon Game Sanctuary, we have the sites that Gordon has investigated. Over down here is Ennadai that Mr. Irving examined. Then up along the Aberdeen Lake-Beverly Lake area we have the sites that both you and--

A. Gordon.

Q. -- and Wright? I think he did one on Aberdeen?

A. Well, Gordon came down in through here. Gordon must have done these on the Thelon just above Beverly Lake because I did not get beyond the Beverly Lake to the west.

Q. Let's go through some of those now.

First of all, starting with Doctor Gordon's book called The Migod Eight Thousand Years of Barrenlands Pre-History. I have only got one copy of it since it is so big. I am going to ask your Lordship that we be able to photocopy some parts of it because these documents are very hard to get a hold of and I have to return this to the Arctic Institute Library in Calgary. If we start at page 107-- first of all, we better establish where Doctor Gordon

was working on this occasion.

A. Right at the northern end of Grant Lake.

Q. He has it shown on page 10 of his book.

A. Marjorie and Grant Lake is right in here. I would take that to be that blue mark right there.

Q. I have placed those marks mostly on the east shore but some on the west shore--one on the west shore to demonstrate the one site that he has on the west shore and, then, a number of sites which he had on the east shore?

A. Yes.

Q. It's just at the north entrance of the Dubawnt River to Grant Lake?

A. Yes.

Q. If I look here, are those approximately right?

A. Approximately, yes.

Q. Let's read together some portions of this report. First of all, on page Roman numeral IV Doctor Gordon says as follows:

"The Migod site at Grant Lake on the lower Dubawnt River, N.W.T. has been occupied during the summer and autumn by caribou hunting and fishing peoples for the past eight millennia. Situated at a prominent water-

crossing and fishing spot, it was first occupied following drainage of the immense glacial Lake Hyper-Dubawnt by Northern Plano Agate Basin peoples about 8,000 years ago. Following a 1,700 year period showing no evidence of occupation, Shield Archaic hunters and fishers persisted until 3,700 years ago, moving south into Manitoba after 3,500 years ago perhaps in response to a prolonged cold period. The Pre-Dorset culture of the Arctic Small Tool tradition occupied Migod about 3,000 B.P. in the form of a small hunting band driven south by highly unfavourable hunting, sealing and fishing conditions between Coronation and Queen Maud Gulfs. With climatic amelioration in the first few centuries before Christ, the Athabascan peoples of the Taltheilei tradition entered Keewatin District from the southwest, evolving into the eastern branch of the Chipewyan Indian tribe. During the 18th century the Chipewyan were

heavily decimated by White-introduced diseases, and the survivors later migrated to recently abandoned Cree lands to the south, leaving the Keewatin District to the historic inroads of the Caribou Inuit from the coast."

At this particular site-- have I correctly stated that abstract?

A. Yes, you have.

Q. On page 201 of the report he deals particularly with one piece of evidence-- I am looking at page 200 where he identifies a modern Chipewyan. I don't know if you recall that particular piece.

A. No, I don't.

Q. He says that this ace of spade point is attributed to early historic Chipewyan.

A. Yes.

Q. That's page 201. Then on page 255 he says:

"Table 27 lists 27 artifacts and flakes of Aberdeen Lake red quartzite taken from Migod strata. They emanate from Shield Archaic, Arctic Small Tool and Taltheilei levels and sublevels. The high quality of artifacts of this material are evident in

the plates, while the presence of flakes suggest either transport of raw materials from Aberdeen Lake or refashioning or resharpening of finished tools at Migod. In any event, finished tools or raw material were brought from Aberdeen Lake south along the caribou migration route to Grant Lake from 3500 B.C. to the historic period."

Have I correctly read this?

A. You have.

Q. What he is saying is that the Indian people were bringing tools that they had made up in Aberdeen Lake down past Grant Lake during this period?

A. Yes.

Q. Then on page 257 he starts his conclusions, and I would like to read substantial portions of these to you, and it is as follows:

"The barrenlands of Canada comprise approximately one-half million square miles, the central portion of which is noted for its isolation throughout historic times. However, such people as William Stewart and Samuel Hearne brought to light the vast importance of its interior to

the early Chipewyan. Hearne described important aspects of Chipewyan life prior to extensive acculturation and emigration from the barrenlands to more lucrative southern fur trapping areas newly abandoned by the Cree. His description occurred before the general historic influx of Caribou Inuit from Hudson Bay. In the early 19th century, Birket-Smith described the Caribou Inuit with their barrenland adaptation from the perspective of an ancient inland affiliated culture. Their interior adaptation was short-lived, however, and they were relocated to maritime settlements under White economy after 1950 due to starvation resulting from failure of the caribou. Their exodus left the barrenlands uninhabited, probably for the first time since deglaciation."

Then he starts into the historical analysis. I will read part:

"Prior to excavations at the Migod site at Grant Lake in the central barrens, it was believed

that full deglaciation occurred about 5000 B.C. at the Keewatin Ice Divide just east of Migod. However, radiocarbon estimates from Grant Lake suggest Northern Plano Agate Basin caribou hunters occupied the barrenlands prior to 6000 B.C."

This is some of the evidence you were referring to before that comes out of Doctor Gordon's work that the Indian predecessors were there before it had otherwise been assumed they were there?

A. Possibly, yes. Yes.

Q. Now, I do not want to read all of this. Let's get us down to more recent times. I am looking now at page 258. I do not want to bore his Lordship with all of this. I may have this summary marked. However, at the end of the summary, page 273, he sets out a table showing his analysis of the period of occupation. He says on page 273:

"In conclusion, this research has described the fluctuation of cultures, caribou and climate at Migod site for the past 8,000 years. The inter-dependency of the three factors in barrenland prehistory continued to the historic period. Finally, a capsule summary of major

barrenland events is given in Table 28."

Then he sets out Table 28. He has the Taltheilei-- the Chipewyan Indians-- in the vicinity from 650 B.C. to 850 A.D. and, then, from 1250 A.D. to 1750 A.D. Is that correct?

A. Yes.

Q. So, so far as the Arctic Small Tool pre-Dorset period, he has them at the site between 700 B.C. and 1500 B.C. I should have those numbers in the reverse for that period. Is that correct?

A. Yes.

Q. Then before that he has the Shield Archaic people-- those you have told us are the predecessors of the Indian people?

A. Yes.

Q. They were there between 3000 B.C. and 1750 B.C.

A. Yes.

Q. Is that correct?

A. Yes.

Q. Then going back into early history he has got various-- Northern Plano Indians or Shield Archaic peoples right back to 4000 B.C.?

A. He has an early period of Shield Archaic from 4000 to 3000 and, then, he identifies the Northern Plano back as far as 7000 to 4000 B.C.

Q. Then if we look at Doctor Wright's Study of the Grant Lake site, which is basically the same area, it's entitled The Grant Lake Site, Keewatin District, Northwest Territories.

A. Yes.

Q. I would like to read with you some of his conclusions. I am looking with you at page 97. Perhaps we should first look at the area he was working in to establish that we are talking about the same area. You see on page 3 the picture of the north end of Grant Lake?

A. Yes.

Q. The sites that he is looking at are on the eastern side of the river, just above Grant Lake?

A. Yes.

Q. Is that correct?

A. Yes.

Q. So, we are basically in the same area as the last report?

A. Several miles farther south along the shore of the lake.

Q. On page 97 he says as follows:

> "In terms of the general culture history of the Barrengrounds the initial human occupation of the region appears to have taken place between 7,000 B.C. and 6,000 B.C. when a band or bands

of the Agate Basin complex began exploiting the rich caribou resource. Their descendants, the Shield Archaic, maintained the same exploitative pattern until around 1550 B.C. to 1250 B.C. when cooling conditions, that lasted until 0 A.D. (Nichols n.d.), forced the treeline south and altered the caribou calving-migration-wintering pattern in a fashion that could not be accommodated by the earlier hunters."

Stopping there, the Agate Basin complex are the prehistoric, pre-Indian cultures?

A. What we call Paleo-Indian or sometimes Plano-Indian referring to this grass land hunting complex of High Plains.

Q. And then:

"In their place, Arctic Small Tool tradition hunters appeared from the northwest and occupied the region from approximately 1200 B.C. to 700 B.C...."

-- he refers to Gordon--

"... Sometime prior to 500 B.C. and approximately 500 years before the warming trend, a band or bands of the Taltheilei tradition..."

-- refers to Noble and Doctor Gordon--

"...occupied the region and maintained their hold until the historic period when they are identified as the Chipewyan. And, finally..."

-- he is quoting himself from a prior article--

"... '...it is speculated that due to a reduction in population resulting from exposure to European diseases or a desire to be closer to the European trading locations the more northerly Cree abandoned their lands and moved further south. At approximately the same time the Chipewyan had been drawn into the fur trade and since their lands were poorly provided with valuable fur animals they shifted into the abandoned Cree territory to obtain the furs necessary to meet their needs for European goods. Similarly, the large areas of the barrenlands vacated by the Chipewyan was occupied by Eskimos'."

Have I correctly quoted him?

A. Yes.

Q. Then let's turn to

Mr. Wright's analysis of the Aberdeen site. Let's turn to page 82 of that analysis. Maybe we need to start on page 81. Let's start at the bottom of page 81:

"The Aberdeen site, however, and Keewatin District in general appear to have been in a very peripheral position relative to the events taking place to the west. Indeed, the Aberdeen site was for all intents and purposes abandoned during this period. The climatic events that resulted in the abandonment of the area by the Shield Archaic populations and their replacement, albeit incipient, by Arctic Small Tool tradition hunters must have had a significant effect upon the migration routes and calving areas of the caribou. Whatever the reasons the area was largely deserted by man with the Indian hunters presumably operating further to the south and the Eskimo hunters exploiting the areas to the west and northwest and only making a rare foray into the region.

It is not until sometime around the birth of Christ that

hunters returned in significant numbers to the Aberdeen site. These hunters however, were not the descendants of the Shield Archaic returning to their old territory but rather they were the ancestors of the historic Chipewyan who came out of the west. Without W.C. Noble's extensive research in the central District of Mackenzie it would not have been possible to say much about the newcomers. The Taltheilei Shale tradition of the central District of Mackenzie is estimated to date as early as 200 B.C. and to terminate with the historic Yellowknife (Copper) Athabascans (Noble). As has been remarked earlier approximately one-third of the projectile point varieties recovered from the surface of the Aberdeen site and from Level I of the excavations are equated with projectile point varieties characteristic of the Taltheilei Shale tradition. Other items from the Aberdeen site such as the chithos and

bi-pointed biface blades..."

-- chithos, what does that mean?

A. Chithos, it is a skin scraper made from a very thin generally circular or ovide rock-- thin platy rock which is roughly around the side. It can be used to clean, scrape, so on without a danger of cutting.

Q. Is that a tool that's associated with the Indians?

A. It's an Indian name. It's kind of a tool widely used-- particularly this style has a rounded ovide tip associated with the forest Indians.

Q. Starting that sentence again:

"Other items from the Aberdeen site such as the chithos..."

-- have I got that right?

A. Chithos.

Q.

"... and bi-pointed biface blades most likely relate to the Taltheilei Shale tradition. Indeed, when the detailed attribute data become available, I strongly suspect that many of the ubiquitous biface blades, scrapers, and other tool varieties will turn out to be distinctive and it will be

possible to make a more sophisticated separation of the mixed Taltheilei Shale tradition and Shield Archaic tradition materials at the Aberdeen site."

Now, I do not want to read all of this. Turning now to the bottom of page 83:

"... Northern Saskatchewan, northern Manitoba, and central and southern Keewatin District were occupied historically by the Chipewyans or Caribou Eaters."

Sometimes the Chipewyans are referred to as Caribou Eaters?

A. That's right.

Q.

"This fact suggests that the Yellowknife and Chipewyans shared basically similar cultural traditions, a situation that is not at variance with the available linguistic and ethnological evidence. The Caribou Eskimo occupation at the Aberdeen site was historic."

That means after white men; is that right?

A. Yes.

Q.

"... and consisted of recent tent rings containing wood

chips, the odd wooden artefact, cloth and sod caribou antlers. J. Tyrrell's comments regarding the aboriginal occupation of the Barrenlands during his visit in 1893..."

-- stopping there, Mr. Tyrrell was an explorer who went through the same area as Mr. Hearne?

A. He duplicated some of the same areas.

Q. And in 1893?

A. Some of the same coverage. He was a famous Canadian geological surveyor.

Q.

"During his visit in A.D. 1893 and Samuel Hearne's voyage to the same country in A.D. 1770 is pertinent..."

-- and he quotes Tyrrell--

"... the conditions which I have found were just as he described, except the inhabitants changed. The Chipewyan Indians, whom he found occupied advantageous positions everywhere as far as the north end of Dubawnt Lake had disappeared, and in their place the country had been occupied by scattered bands and families of Eskimos, who

had almost forgotten the ocean shores from the north from which they had come. The historical movements of the Chipewyan out of the Barrenlands and to replace them by Eskimos has been considered in a recent paper..."

-- then he quotes Wright, The Recent Historical References, which are in essential agreement with the available archaeological evidence indicating a series of population movements for which reasonable explanations exist. The Cree, with early contact with Europeans,

"it is speculated that due to the reduction in population, resulting in exposure to European diseases or a desire to be closer to European trading locations the more Northerly Cree abandoned their lands and moved further south. At approximately the same time the Chipewyan had been drawn into the fur trade, and since their lands were purely provided with valuable fur animals they shifted into the abandoned Cree territory to obtain the furs necessary to meet their needs for European goods. Similarly, the large area of the Barrenlands vacated by the Chipewyan was occupied by Eskimos."

Have I correctly quoted that article?

A. Yes, sir.

Q. Then Doctor Irving has published his findings in a book entitled Science,

History and Hudson's Bay, and in particular part two, the Barren Grounds. It deals, particularly on page 49, with Caribou-Eskimos and their origin. I don't want to read the whole article, but at the bottom of page 49 he says-- he comments about Birket-Smith's theory that the Caribou-Eskimos were the original people who went out to the coast, rather than vice versa, as you demonstrate. I am quoting from page 49:

> "From a different standpoint, Birket-Smith observes that, of those Caribou-Eskimo traits that appear to come from Indian culture, most were borrowed from the Cree at a very uncertain date, rather than from the Chipewyan at a later one, after their hypothesized eastward expansion from the west toward Hudson Bay; this suggests for the Caribou-Eskimo a long period of residence in the southern Keewatin. Alternatively, the Caribou-Eskimo may have picked up traits from the Cree, along the coast of Hudson's Bay, before they moved inland, shortly before the 19th century, when the interior Barrens were occupied mainly by the Chipewyan. The complete absence of anything that

might be a prehistoric Caribou-Eskimo grave from the parts of the Keewatin interior surveyed by the writer and C. Merbs, where there were many Eskimo burials from dating after 1850, and finally, it swings the weight of evidence to favour a recent movement by these people into the southern Barren."

Have I correctly quoted Doctor Irving?

A. Yes.

Q. Then I want to read to you from Brenda Clark's study The Development of the Caribou-Eskimo Study. Starting at page 116 you will see the heading The Caribou-Eskimo Period. What I am trying to get is her analysis of that period.

A. Yes.

Q. I am reading from the middle of page 117:

"Essentially, all of the information concerning Caribou-Eskimo culture comes from historical accounts and the work of Kaj Birket-Smith, a member of the Fifth Thule Expedition. From these sources, the chronological placing of the Caribou-Eskimo

culture period and the nature of the seasonal round of activities can be determined.

Sometime near the end of the 18th century or the beginning of the 19th century, some groups of the west coast Hudson Bay Inuit population began to inhabit the interior barren grounds on a year-round basis. This, according to our definition mentioned previously, was the beginning of the Caribou-Eskimo culture period. Four geographic sub-groups were recognized within the major grouping of Caribou-Eskimos (Birket-Smith 1929a), Qaernermiut, Hauneqtormiut, Harvaqtormiut and Padlimiut."

Then she goes on:

"As Birket-Smith points out, it is difficult to designate clear boundaries between these sub-groups."

Have I correctly quoted Brenda Clark?

A. Yes.

Q. Let's read page 126:

"Archaeological evidence has

shown that the barren grounds have always been a marginal area as far as cultural development is concerned. The interior has never been occupied on a continuous year-round basis except by some bands of Caribou-Eskimos. Nor has any one cultural group continuously occupied the barrens. Harp's four cultural traditions, including Paleo and Archaic Indian occupations, show the varied and discontinuous habitation of these regions until the late 18th century. According to the archaeological evidence, none of these cultures originated or developed on the interior barren grounds. Thus, there is no evidence to support Birket-Smith's hypothesis of a 'proto-Eskimo' stage of Inuit cultural development in the area; it follows that the Caribou Eskimo cannot be the remnant group of this 'proto-Eskimo' stage. Another origin for the Caribou-Eskimo culture must be sought. It might be

assumed that the Thule culture variant that is known to have occupied the area is ancestral to the Caribou-Eskimo culture. Archaeological evidence from the west coast of Hudson Bay has shown a continuous occupation from A.D. 1200 to the present. (Classic Thule sites are limited to the northern part but modified by Thule 1200 to 1610 A.D., historic Thule 1610 to 1775 A.D. and the Caribou-Eskimo period represented on the barren and coastal regions of the west Hudson Bay)..."

-- and then I read as follows:

"... the development from the Thule culture to the Caribou-Eskimo culture, as defined by Birket-Smith, occurred at a dramatic rate. An explanation will be offered to account for the development of the two major defined characteristics of the Caribou-Eskimo culture, a unique economic orientation and the stylistically primitive appearance of the material cultured complex."

Have I correctly quoted her again?

A. Yes.

Q. Then in her conclusion on page 151 and 52 -- I don't know if we have to read the whole of the thing -- at the bottom of page 151:

> "Archaeological evidence indicates that there was an ongoing degeneration in technology since the classic Thule stage (A.D. 900-1200) which was initiated by certain historical processes including, probably, a change in social values affecting Inuit views on craftsmanship. It was proposed that the deterioration in the quality of manufacturing technique through time could perhaps be used to assist in the relative chronological placement of Thule assemblages. The technological degeneration was also influenced by the acquisition of items of European technology. The conclusion offered is

that the origin of the Caribou-Eskimo culture, as defined by Birket-Smith, occurred about A.D. 1775 when the effects of culture contact between the aboriginal Inuit and Europeans caused a change in the Inuit exploitative and settlement pattern and subsequently accelerated the deterioration of the material culture of the west coast Hudson Bay Inuit."

Have I correctly quoted her?

A. Yes.

Q. Have all of these authors relied upon your findings as sort of a start of their work?

A. I believe so.

Q. Is that correct?

A. Yes.

Q. We see a trend in all of those archaeologists -- a belief that the interior of the Keewatin became occupied by the Inuit about the end of the seventeen hundreds. Is that correctly

summarizing the articles which we have read together?

A. I think it does, so long as you confine this trend to the country lying south of the Thelon because I think it's less applicable in the northern section.

Q. Well, Aberdeen is on the Thelon?

A. Okay, but Aberdeen I would then place off on the western extremity. In other words, there seems to me to appear to be some kind of geographic separation -- it's not because of any natural or normal boundaries or anything of that sort -- but for whatever the reason, it appears to me that it's quite obvious the Eskimo occupation of the southern barren grounds is or was relatively recent in the eighteenth century, whereas we continue to have this earlier evidence of Eskimo occupation up on the latitude of Baker Lake, Chesterfield Inlet, the lower lakes of the middle Thelon -- when you get as far as Aberdeen and Beverly then you begin to run into these earlier Indian signs again.

Q. What we have are signs of Thule periodic occupation back

between twelve and fourteen hundred, in those areas; is that not correct?

A. Yes.

Q. What we have -- I have read to you from all of these journals --

MR. GOLDEN: Those areas -- I don't know what he means by "those areas". We have been talking about two separate areas.

THE COURT: There may be need for a bit of precision.

MR. GOLDEN: It's just like the word 'barren.' It is a big word. I am concerned.

THE WITNESS: This whole area, in through here, north of the tree line is a vast triangular area running from roughly the 60th parallel or even as far south as Churchill up on a northwesterly line.

THE COURT: You are drawing a line from about Churchill, Manitoba, up past Coppermine, up in the Artic?

THE WITNESS: Yes, approximately so, My Lord, and eastwards to incorporate all of this country. That is the section that is conventionally known as

the Barrenlands or the Great Barrens.

THE COURT: The mainland is lying to the north and east of that Churchill-Coppermine line?

THE WITNESS: Yes.

THE COURT: That is what you are referring to generally as the Barrens?

THE WITNESS: This border line is essentially -- follows the tree line.

THE COURT: I see.

THE WITNESS: That is a name that is -- I don't know how long that name has been attached to it because I don't know who originated it, really. However, this is the section of country that I suggest we, somehow or other, have to divide up because of the difference I think we see in these early occupation sequences. It looks to me like the Indians may have priority in the southern reaches of this area and the more westerly portions of it; whereas the Eskimo, in my way of thinking, have a comparable priority for the northeastern section.

BY MR. HEINTZMAN:

Q. Let's deal with

Aberdeen Lake.

A. Okay.

Q. We know -- at least the opinion of these authors is that the Inuit -- I'm sorry, the Indians were continuing to go up and use sites in that area, up to and including the historic period; is that not correct?

A. Yes, I believe so.

Q. And we can expect them to be using the same sort of crossing places, in the vicinity of Aberdeen Lake, that you examined, if they were there; is that not correct?

A. I think so, yes.

Q. Now, the theories and opinions that we have gone through would tend to indicate that if the Caribou-Eskimo -- and I am using that to describe these people who live inland rather than living on the coast and going inland to hunt caribou -- came from the shores of Hudson Bay sometime the late seventeen hundred; is that not correct?

A. You are speaking of the southerly area now?

Q. Let's talk about Aberdeen Lake. We want to get specific.

A. All right.

Q. Do you accept that?

A. Please restate it.

Q. That the Chipewyans continued to use the area up to and including Aberdeen Lake -- up to and including the early historic period -- and it was sometime around the end of the seventeen hundreds, early eighteen hundreds-- that the Inuit came inland from Hudson Bay. That is the theory that all of these people, relying on your earlier studies, have arrived at?

A. Yes, I think you're right in corroborating that.

Q. I suggest to you there are two facts in particular that allow us to be fairly specific about this. First of all, we know the Chipewyans were decimated by small pox in an epidemic in 1781 and 82; do we not?

A. I have so read.

Q. Do you accept that as being a very significant factor which removed the traditional occupiers or users of that area and allowed the Inuit to move inland?

A. I don't know this from first hand research, but I understand

certainly this could have happened. I am willing to accept the possibility. I know what European diseases have done to native groups elsewhere.

Q. The other document phenomena that we can pinpoint is the fact that the Eskimos were given firearms by the Hudson Bay Company in 1773, which permitted them, for the first time in their history, to deal with the Chipewyans on equal terms. Are you aware of that?

A. Yes, I have read this.

Q. Would you not also agree that that is another significant thing that we can point to as being a factor which led to the Inuit's ability to move inland?

A. Yes, I would believe so.

Q. There is another theory as to the origins of the Inuit people which Mr. Burch has recently espoused. Are you aware of his recent theories?

A. I believe I understand them all. Yes.

Q. And Mr. Burch now believes that, in fact, in or around the 1600s and 1700s there were no Inuits living

on the west coast of Hudson Bay at all?

A. Yes.

Q. That, in fact, what happened was about that time the Inuit came from the Coppermine, down their traditional river routes, into the central barren out to the west coast of Hudson Bay, where they resided for a short period of time before moving inland. Is that correct?

A. May I ask you a question, Mr. Heintzman?

Q. Yes.

A. I thought that was country you just assigned to the Indians. Over there you speak of traditional routes, Coppermine, down and then eastward out to Chesterfield Inlet as a path for the Eskimos, but that is counter to what you maintained before this.

Q. Maybe I can do the asking and you can help me with the answering.

A. I will be glad to if I can.

THE COURT: Obviously your questions are tougher than his.

BY MR. HEINTZMAN:

Q. Well, if the

Chipewyans had gone by that time that would have permitted them to do that?

A. Yes.

Q. Is that not correct?

A. Yes, but this is an extreme possibility because I don't think you have suggested anything that has any -- I don't know of any factual data that would support a hypothesis of this nature.

Q. Well, Mr. Burch has written an article of 38, 40 pages?

A. Yes, but that doesn't alter my skepticism.

Q. Will you agree with me that Dr. Burch is a renown Artic anthropologist?

A. Oh yes. He is a very good man.

Q. And that his opinion is one --

A. To be listened to.

Q. -- one to be listened to? Right. It is one which, so far as he is concerned, has a considerable amount of evidence to support it?

A. I would question that.

Q. Perhaps we can go through some of his findings. So His Lordship can follow it, maybe I can provide Your Lordship with a copy of the article entitled Caribou-Eskimo Origins, An Old Problem Reconsidered.

Again, I do not want to go through this thing in great detail.

MR. GOLDEN: May I give the witness a copy?

MR. HEINTZMAN: Do you have an extra copy?

MR. GOLDEN: Yes.

MR. HEINTZMAN: Thank you.

MR. GOLDEN: May I explain, My Lord, that we did not reproduce them out of any great loyalty to the author, but a secretarial mistake that resulted that in being reproduced rather than Dr. Harp's article. We have extra copies for that reason.

BY MR. HEINTZMAN:

Q. Is it fair to say that Dr. Burch rationalized two theories: a theory put forward by Dr. Taylor that the Caribou-Eskimo were derived from people on the Arctic coast near the Coppermine; then the theory of yourself and people

following you that they came from the west coast of Hudson Bay?

A. Yes. He was re-examining both of these. In the end he came up with some kind of accommodation.

Q. Yes, he came up with the accommodation that they did come from the Coppermine, but, yet, they did settle on the west Hudson Bay and then immigrated or migrated inward. That was the theory he came up with?

A. Yes, from the northwest.

Q. Yes.

A. Yes, into the Thelon country.

Q. To the west Hudson Bay coast?

A. Yes.

Q. And then came inland?

A. Farther south.

Q. But that when he assumed the proposition, which I've been putting to you, and accepted the proposition which I've been putting to you, namely, that the occupation of the interior by the Eskimos on a year round basis occurred sometime

during the 1700s or 1800s. That was taken as an accepted and acknowledged and agreed fact.

A. Referring to the historic Caribou-Eskimo, yes.

Q. He says on page 2 -- do you see his article?

A. Page what?

Q. Page 2?

A. I have it.

Q. He says on the right-hand side just underneath the picture:

> "Taylor hypothesized that, instead of following the coastline east then south along the west coast of Hudson Bay, the immediate ancestors of the Caribou-Eskimos migrated over land to Hudson Bay via the Thelon River/Baker Lake area sometime around A.D. 1650. They subsequently expanded inland to their known historic distribution. A slight variance of this point of view (Dr. Irving) holds that this overland migration

came out of the Netsilik Eskimo region to the east of Queen Maud Gulf. The Taylor hypothesis was not strongly advanced initially, and has not been subjected to systematic evaluation."

So, he is saying originally these people came from Coppermine, over to the Hudson Bay coast and then moved inward?

A. Yes.

Q. Whereas Dr. Irving is suggesting a movement from the Queen Maud Gulf area, south to the west coast and then inward?

A. Yes.

Q. It's interesting in this case, Dr. Harp, that a considerable number of the witnesses who have testified have actually come from the north coast.

A. I understand that in historic times there has been relatively free and common movement back and forth through that country, yes, but not by great numbers of people but, at least, by individual hunters and families. In fact, that sort of

thing doesn't really surprise me at all because in all that we know about Eskimo -- the Inuit culture -- everything suggests mobility -- the utilization of various neighbourhoods or environment or areas within this great region on a seasonal basis. I have never considered these people as sedentary in any way at all, at least before the coming of modern settlements. So, movements of this sort don't -- are not upsetting.

Q. On page 4 of his article, the last paragraph before he discusses Mr. Munck, Dr. Burch says:

> "It is worth noting at the outset that the major early historical sources on the Caribou-Eskimo area are well-known and that I have no new ones to add to the discussion. Furthermore, these sources have been examined previously with regard to the light they might shed on the question of Caribou-Eskimo origin. However, I subject them to more rigorous scrutiny than

they have received in the past. I show that, when they are carefully evaluated, they fail to support the claim that the Eskimos had been long time inhabitants of the west coast of Hudson Bay prior to A.D. 1717. If anything, they suggest just the opposite conclusion."

So, that's his theory?

A. That's the theory, but I consider that an entirely negative statement. Would you like to question further on that point?

Q. You mean it doesn't add up to anything?

A. It doesn't add up to anything as far as I am concerned.

Q. Well, what Dr. Burch does is analyze all of the historical contacts between the explorers on the west coast of Hudson Bay and Inuit?

A. Yes.

Q. Is that correct?

A. Yes.

Q. Is it fair to say that until the 1700s he doesn't find

any hard evidence of contacts with Inuit or Eskimo people. Isn't that his conclusion?

A. Yes, but there are reasons for that, I think, or counter suggestions that can be made.

Q. What are they?

A. Well, in the first place some of these people ranged up and down -- that is a bad coast to sail -- it is very shoal -- some of them stayed so far out to sea they could barely see the land, apparently, and presumably would have had very little opportunity, if any, to see people, even if they had been there. One or two of them did touch in at specific spots and did stay for certain lengths of time. There are conflicting reports of cultural remains. For example, what we found around the mouth of the Churchill River -- hardly any two of these agree on what these remains consituted or where they were even located specifically. So, I had not covered all of these examples, but it's simply to suggest to you that there are a series of reports, most of which I would immediately wash out as evidence because a few of these earlier explorers didn't see any -- they hardly knew what they were looking for in the first place --

and it doesn't mean to me that the country was unoccupied or empty. Moreover at the time of year, some of them passed up and down this coast -- people that have been back in the interior.

Q. Do you accept his conclusions from the historical --

A. I don't like it, no. I would perhaps accept bits and pieces of it, but certainly not as a major explanatory case.

Q. Well, do you --

A. I just don't -- he's proposing this in the form of negative evidence. In our business, archaeological field research, you cannot wander through a piece of country, and if you do not find anything, develop a theoretical scheme to account for this, emphasizing the absence of people. It is just impossible to do.

Q. So you're saying, despite the fact that he says -- when you read these reports-- that these people did not see any Inuit they may have been there in other places?

A. Yes.

Q. Do you accept his conclusions that these people did not

see any Inuit?

A. I guess I would have to, yes.

Q. In fact, Jeremie in 16 --

A. Jeremie was one of the ones who did see something.

Q. He saw some Indians?

A. Yes, in the neighbourhood of Churchill or a little north of that around Eskimo Point, was it? I don't remember the exact spot.

Q. Chesterfield Inlet. Look at the bottom of page 8.

A. Yes.

Q. "Other sections of Jeremie's account imply that the mouth of the Churchill was within Cree territory, and that the Cree were at least vaguely familiar with the west coast of Hudson Bay as far north as Chesterfield Inlet. The Chipewyan, on the other hand, lived toward the north west, beginning on the upper portions of the

Seal River. They, too, occasionally visited Munck's old site to obtain iron."

A. I would be willing to accept, without further question, the suggestion that the Cree occupied that as far north as Churchill; but I want to see some factual documentation of their existence farther north beyond that point. I mean, it sounds great but I would like to see some facts.

Q. Well, maybe Brenda Clark can help us.

A. Okay.

Q. On page 11 of her report she says that in 1694 to 1714 that the Indians were the first to move in for spoils left behind by Munck, upon entering a small hut that had been erected by the Danes in the mainland. The Indians accidentally set fire to a keg of gunpowder and blew everything, including themselves, to pieces. Later several other Indians came to salvage the iron which was all that survived the explosion.

A. Where is that exactly? Where did that happen?

Q. Didn't Mr. Munck

go down --

A. He said down the west coast, yes. I don't recall where this supply depot of his was.

Q. It's just north of Churchill, as I understand it. Would you accept that?

A. Well, I wish we could locate it a little more precisely.

MR. GOLDEN: It's called Munck Haven. It's page 10.

THE WITNESS: Page 10.

MR. GOLDEN: Page 10 of Clark's article.

MR. HEINTZMAN: I cannot be anymore specific than that.

MR. GOLDEN: I wish you would be because it's misleading.

MR. HEINTZMAN: We have got to grapple with the materials available to us.

MR. GOLDEN: I'm sorry, My Lord, it's a misleading question. My friend has Miss Clark's paper and he was reading from page 11. Page 10 indicates the location and the witness wants to know the location site of Miss Clark for that statement. I think it is only fair to ask

my friend to read the last paragraph on page 10.

BY MR. HEINTZMAN:

Q. Do you know where Munck Haven and Churchill River area is?

A. I know the Churchill River area, yes, but I don't know where Munck Haven is specifically.

Q. That's apparently where Mr. Munck --

A. Well, it will not show on that small scale map.

Q. Well, if Dr. Burch is correct that the Indians were over near the Chesterfield Inlet area in 1690 to 1714, would you agree with me?

A. No. What is his source for that? This is still not clear to me. I see Indians down here in northern Manitoba, but how do we get them up around Chesterfield Inlet, aside from this gunpowder incident?

Q. That's what he says at page 8 of his article; is that not correct?

THE COURT: Well, I take it that is one of his hypothesis with which the present witness is in disagreement.

THE WITNESS: He keeps

mentioning Churchill here. I would be glad if you could point that out to me.

THE COURT: If you look at the first full paragraph in the left-hand column on page 8 of this Burch report you perhaps could get some precise idea of where Mr. Munck's powder supply was --

MR. HEINTZMAN: I thought there was some reference to it.

THE WITNESS: He says over on the preceding page, page 7, that:

> "... Jeremie presents an extremely accurate description of the mouth of the Churchill River, and also of musk-oxen, which were found north of the Churchill River. On the basis of this account one must assume either that 1) Jeremie and/or his associates personally had explored the coast for some distance beyond the Churchill mouth, or that 2) their Cree contacts had

described the district to them in considerable detail."

In either case it is significant that he says nothing at all about Eskimos residing in the area.

"Jeremie's only clear reference to Eskimos concerned those living along the shores of Hudson Strait."

Yes, he made that report and I guess it cropped up again in the journals of Knight, to the effect that certain Eskimo groups were coming into the Hudson Bay-- through Hudson Strait-- whether these people coming from Baffin Island or Ungave which isn't reported-- over here to the west side of the Bay for purposes of trade. Everybody who mentioned that, who knows anything about those waters up in here, is I think astounded by such a feat to think that kayaks could probably go whipping across those stretches of water. That is something if it happened.

BY MR. HEINTZMAN:

Q. Well, he's concluded --

A. Even if you did island hopping it is still--

Q. Incredible?

A. It's an unimaginably vigorous trip, yes.

Q. Well, looking at his conclusion so far as the French sources are at the bottom of page 8 at the right-hand corner he says:

> "The French sources, in sum, are problematic. Their import rests to a considerable extent on the interpretation of the terms 'Ikovîriniouch' and 'Hakouhirmiou'. If they are simply different renditions of a single word, and if they refer to Chipewyans rather than to Eskimos, then there is no suggestion in any of the French sources of a resident Eskimo population on the west coast of Hudson Bay. The only clear reference to Eskimos locates them somewhere to the north of Chipewyan country. That view is plausible since all of the writers concerned were familiar with Ekimos

in Hudson Strait and/or the Atlantic coast, to whom they applied the specific term 'Eskimo'. If Eskimos had lived in the area of concern here the French would have known about them and would have referred to them as Eskimos and not as something else."

Do you accept that statement?

A. That is a lot of verbiage in there that I do not accept easily at all. I think they were just having a wonderful time playing with some ideas here and trying to rationalize something out of it and it doesn't come off to me, because it's so -- there is such a paucity of good imperialical facts. He is toying with these observations -- these French bastardized renditions of native words.

Q. Well, do I understand --

A. It's not too convincing.

Q. What you are saying is you accept his evidence that these people

did not see any Eskimos, but you don't accept that negative fact of the evidence that they were not?

A. Yes.

Q. Is that correct?

A. Yes.

Q. Then on page 12 of the article at the top right-hand corner he says:

> "In my opinion, the historical sources provide no evidence whatsoever of an Eskimo occupation of the west coast of Hudson Bay during the 17th century. The information on at least the area south of Eskimo Point is good enough to make that interpretation firm for that area. Foxe studied the coast closely in 1631, Kelsey traversed the area on foot in 1689, and the French probably sailed as far north as Seal River at least once between 1694 and 1713. The evidence is particularly good for the

mouth of the Churchill itself, which is visited by Munck in 1619 - 20, the Hudson Bay Company people in 1686 and 1689, the French between 1694 and 1713, and Stuart in 1715 and again in 1716. During all of this time no Eskimos were seen. Why not? Because, I submit, none were there. Eskimos may have been there earlier, and they were certainly there much later, but between 1619 and 1716, the west coast of Hudson Bay south of Eskimo Point was devoid of Eskimo inhabitants. The only area of doubt is whether people from Hudson Strait were visiting Munck's old site during the summer."

Again, do I understand you accept his evidence, but you do not accept the conclusions that just because they did

not see anybody that nobody was there?

A. He seems to be a little farmer in the development of that paragraph. I still do not find it perfectly satisfactory at all.

Furthermore, he has not expanded himself all the way up the west coast of the Bay. He has moved up a short distance -- he's talking about the stretch of country as far as Eskimo Point that he identifies there and Seal River. Where is Seal River?

Q. Seal River is just north of Churchill.

A. Oh yes. That's right.

Q. It's right in there.

A. Okay. But you see, that's not terribly far north, really.

Q. All right.

THE COURT: Mr. Heintzman, I think before we finish this line of questioning we will have to take our mid-afternoon break.

---Short Recess

---Upon Resuming after Recess

THE COURT: Mr. Heintzman?

MR. HEINTZMAN: Thank you, My Lord.

Q. Then in the archaeological part of this article -- do you have it, sir?

A. Yes, sir.

Q. Dr. Burch reviews the various sites that have been studied archaeologically -- and I am not going to quote all of those -- then he comes to page 16 and gives his interpretation. Perhaps we can read those together.

> "The locations of the major Thule sites in the Caribou-Eskimo area surveyed or excavated through the end of the 1976 field season are indicated in figure four."

That is the map that he has in the article.

> "The sites shown on the map are listed, along with reference data, in table two. The total number of known sites actually exceeds that listed by a considerable margin, but the sites are too

numerous and too close together - particularly in the Rankin Inlet area - to permit complete ennumeration here. The number and density of sites indicate that there once was a fairly sizable (by Eskimo standards) Thule population along the coast from Rankin Inlet to Roes Welcome Sound. This population probably extended farther south, possibly as far as Churchill, but the research required to confirm that possibility had not been conducted by the end of the 1976 field season. Beyond that, present evidence suggests that the spread of Thule people into the interior was restricted to the Baker Lake - Lower Thelon River area and that it was of limited scale

even there. The archaeological evidence also establishes that the southern and western margins of Caribou-Eskimo country were completely dominated by people representing the Taltheilei, Chipewyan culture - tradition from as long ago as 500 B.C. to recently as early 20th century. The attention then shifts to the southern interior, for which the archaeological evidence is still sparse. The limited indications are that the human population was never very great in this area and that the late prehistoric -- early historic Chipewyan were once present, followed by the Caribou-Eskimos for a brief period of time. Anticipating

a further publication of the result of my own historical research, I can state more specifically that the Caribou-Eskimo occupation is archaeologically thin in the interior which does not even begin until the early 19th century when the coastal population began to expand inland. It was significant for only about one hundred years (from 1860 to 1960). The search for Caribou-Eskimo origin obviously must focus itself on the Hudson Bay coast rather than on the interior."

Have I correctly read his conclusions?

A. Yes, you have.

THE COURT: I appreciate your desire to get along quickly, but we must have some sense of compassion for the

reporter. You might slow your reading down. It's very hard to get that down verbatim.

MR. HEINTZMAN: Yes, My Lord. I promised the reporter I would stay behind to make sure she gets the portions that I have read down correctly.

Q. What Dr. Burch is concerned about is inland living people, whether north or south -- he says that inland living people have only been living inland relatively recent. That's his conclusions; is it not?

A. Yes. Now, may I say something?

Q. You certainly may.

A. I suspected as far as he's referring to the southerly portions of the Barren Grounds -- the portions shown in here to encompass Dubawnt, Yathkved, so forth, which has been examined by Gordon and Irving -- I suspected that Burch is on the right track. However, I think he's proceeding a little bit too rapidly, possibly, when he -- if he's making any reference or including any reference here to the Baker Lake - Thelon country. He speaks of this as an archaeologically thin -- I would be a lot happier with a statement like that if we had more intensive

-- the results of more intensive archaeological work in that country. I think this point is borne out by the researches done a couple of summers ago -- the trip -- the very rapid survey that Dr. Nash made through on behalf of the Polar Gas Pipeline. If you look at all those sites that blossomed up around the south end of Baker Lake and around Thirty Mile Lake to the south and also up the old valley of the Thelon, west of Current Valley -- in other words, I suspect there are much more in that country in the way of archaeological remains than we may be aware of at the moment. I would not want to extrapolate too far with the limited data we have.

Q. I appreciate what you said in chief that there is no archaeological basis for taking the Caribou-Eskimo people back beyond Birket-Smith. We just don't have any evidence. Isn't that in effect what you are saying?

A. There, again, this requires more field work.

Q. We don't have the evidence?

A. Well, yes, we don't have published evidence.

Q. In fact, some of the Polar Gas material, which I looked at -- that you were referring to this morning -- many of those sites are, in fact, Paleo-Indian sites?

A. I do not know what would be many. I would have to review that.

Q. I looked at them and there was at least two of them. We can look at it together, if you wish. There were Paleo-Indians -- Paleo-Eskimos; isn't that correct?

A. I will look at them with you if you like. This covers the area around the south west end of Baker Lake, plus this aerial survey that made up this valley to the west. That's not -- I would want to see a continuation of that -- but there was an old former Pleistocene period channel of the Thelon River coming out of Schultz Lake to the west of the present contemporary channel.

Q. When he finds caribou Inuit evidence -- and I'm looking at page 217 -- he says, "recent construction".

A. Yes.

Q. Then when we have another example on page 218 "... recent Caribou-Inuit

occupation".

A. Yes. However, you see, we don't know really how far back some of these might go. We haven't done any intensive work on these particular remains back in this sector of the country, to my knowledge.

Q. Page 219, one of the sites, "Northern Plano components ..."; is that correct?

A. He says so.

Q. Page 220, "...Paleo Indian components ..."; is that correct?

A. He says so.

Q. So we don't know what this could all lead to. Here's another one on page 222, "... Paleo-Indian site ..."; is that correct?

A. Yes. Where is the location of that?

Q. It's on Baker Lake?

A. Correct.

Q. This represents Indians uses of Baker Lake; isn't that correct?

A. Or the area around the ends of Baker Lake, yes. It appears to. Those I suppose would correlate with the Paleo-Indian sites that I found up at the eastern end

of Schultz Lake -- way up on a high raised beach level. I think it's part of that drainage system coming down toward the lake, yes.

Q. Or the Paleo-Indian sites you found in Aberdeen; isn't that correct?

A. Well, in the final analysis I think we have to relate all of these, yes.

Q. If the Indians are at Aberdeen Lake at a particular period we can expect them to be in Baker Lake and then the other places where the caribou crossed the Thelon River valley; is that not correct?

A. I suppose so, yes. This just simply falls into line with the rather firmly established fact that some Paleo-Indian expression was the very first representative -- very first human occupation of the Barren Grounds in that region.

Q. In all of these successive occupations by the Indian people from the tree line right up through Aberdeen - Baker Lake is a manifestation of their following the Beverly Herd; isn't that correct?

A. I suppose so. I don't really know that. It seems reasonable.

Q. The thrust of what all of these authors that I have cited to you is, is it not, that insofar as interior living by Inuit people -- interior living at all -- in the Keewatin, it occurred sometime after the 1700s, and up to that to the extent there were Inuit people in the interior, they were there on a periodic basis to hunt or do something like that; isn't that correct?

MR. GOLDEN: That is a big statement.

THE WITNESS: I have to say conversely.

MR. HEINTZMAN: Can you answer that question?

MR. GOLDEN: I'm sorry, there are two questions there. I know he's willing to answer but it's still two questions.

THE WITNESS: I would be happier if you broke it down a bit.

BY MR. HEINTZMAN:

Q. Isn't the thrust of what all of these authors are saying that the occupation on a year round basis by Inuit people in the Baker Lake - Lower Thelon River area occurred only after the 1700s?

A. You are making specific reference to the so-called Caribou-Eskimo?

Q. I'm talking about people who lived inland all year round and live off the caribou as their sustenance -- the pivotal point of their existence; isn't that what they are saying?

A. Well, you see, that evolves on a point I do not fully accept myself.

Q. Can I just get this much: isn't that what all of these authors are saying?

A. I suppose that's decent enough, yes.

Q. Are you aware of any writer to the contrary?

A. No. Maybe I will have to sit down and write it myself some day.

Q. Now, I have shown you many articles but I have not shown you Dr. McGhee's article. Basically he arrives at the same conclusion in his article entitled A Current Interpretation of Central Canadian Arctic Pre-History, which you are familiar with?

A. Yes.

Q. He goes through all of the cultures, right up to the present date. On page 179 he says:

"Rather surprisingly, the most simple and primitive of the central Eskimo groups, the Caribou-Eskimos of the interior Barren Grounds west of Hudson Bay, may have been a product of the most recent cultural transformation. Archaeological surveys of the Caribou-Eskimo area have failed to produce evidence of any prehistoric Eskimo occupation."

He then refers to you and Dr. Irving.

A. I do not understand that last sentence at all. I cannot believe my friend McGhee turned that out. It doesn't say anything.

Q. You mean it's another negative? Is that what you are saying?

A. No, it just looks as if some huge typographical error must have been made here or a clause left out or something.

"Archaeological surveys of the Caribou-Eskimo area

have failed to produce evidence of any prehistoric Eskimo occupation."

And then he cites Dr. Irving and me. What about these other Eskimo manifestations? We've already pointed out the slight evidence of a pre-Dorset occupation back in there, the Thule sites running back into the country.

Q. I think what we are talking about is occupation in terms of year round occupation?

A. It's not clear to me at all. You see, this is the basic point that I cannot quite accept -- even from my old friend, whom I respect so much, Birket-Smith -- I think he's overdrawn the case of the Caribou-Eskimo. I don't -- I find it very difficult to believe that under an aboriginal system -- economic system -- that the Caribou-Eskimos would live back in that country year round for very long and do it successfully. Maybe I am muddying the point here. I'm not sure.

Q. Let's read the article. I'm not sure how to respond to your statements.

"This, together with the 18th century Chipewyan

occupation of this region, documented by the travels of Samuel Hearne, suggest that Caribou-Eskimo culture resulted from a movement into the interior from the Hudson Bay coast at some time after the Chipewyan were decimated by small pox around A.D. 1780.

The rapid development of the distinctively primitive Caribou-Eskimo culture may stand as an example of the type of cultural development which appears to be typical of central Arctic prehistory. Time and again this area has been occupied from without, twice from Alaska with the Arctic Small Tool and Thule migrations, and several times by pre-Dorset and Dorset peoples expanding from the core area and Foxe Basin and northern Hudson Bay. In each case, a population with a distinctive

culture spread along the central Arctic coast, or into the High Arctic Islands, or in one case into the interior of the Barren Grounds, occupied these areas for a few centuries, and then disappeared. These archaeological disappearances probably reflect the biological extinction of local populations due to various factors of historical chance - a series of poor hunting seasons, an incorrect prediction of spring break-up, forest fires which changed the patterns of caribou migration, or any number of other factors.

The central Arctic may be a region which is truly marginal to human existence in the pre-industrial state. Even a people as closely adapted to Arctic conditions as were the Eskimo, found it

impossible to inhabit this area indefinitely. Despite the ingenuity, the cultural flexibilty, and the capacity for endurance which is demonstrated by the various prehistoric occupants of the central Arctic, eventual extinction at the hands of historical chance may have been the inevitable fate of any people attempting to settle this region."

Now, that is what Dr. McGhee has written?

A. Those are pretty good paragraphs.

Q. And basically he's saying --

A. Yes.

Q. -- that people have not inhabited this area on a continual basis until the Caribou-Eskimo did or have?

A. Yes. I think we have to lend quite a bit of credence to that.

Q. And prior to that the area had been shared back and forth through

the centures by the Chipewyans and their ancestors and the Inuit and their ancestors; isn't that correct?

A. Yes. I would insist -- I think on our having to view the Indian sequence it's in pretty much the same manner.

Q. Yes.

A. And it's emphasizing the sporadic nature of it and seasonal nature of it.

Q. Yes. And that the occupation by these inland dweller Inuit occurred sometime after 1700s? That's what all of these people say -- all of these experts have indicated?

A. On the basis of present archaeological information.

Q. And historical?

A. Yes. I like the archaeological better.

MR. HEINTZMAN: Thank you, sir.

THE COURT: Mr. Graham?

CROSS-EXAMINATION

BY MR. GRAHAM:

Q. Dr. Harp, you were able to refer in your Affidavit, sir, to caribou crossings and some of the sites that

you identify at caribou crossings?

A. Yes.

Q. Were you able to ascertain with precision how close these sites were to these crossings?

A. In some cases -- well, in nearly all cases I have attempted to make some kind of measurement or judgment. Many of them I have found were directly at the crossings. I don't know if I can find this quickly or not, but I brought in a few slides -- I think we agreed they were not going to be vital or necessary -- if I can lay my hands on it quickly -- that's a look at what some of that -- a lot of that terrain appears like -- it's studded with ponds and lakes.

Q. Is that a Plano-Indian in the foreground?

A. It might well be. It is a little obscure there.

Q. This is taken from an aircraft?

A. Yes. What I am trying to find is that I have a slide here that shows a series of caribou tracks, funneling down -- as the animals move across the country they -- of course, the spring's

migration are very frequently in big herds or flocks, sometimes closely packed, and in the fall they tend to trickle back in small groups -- the cows with the does. When we come to a river crossing you can see their tracks as they tend to beat through the vegetation and follow one another in single file and very quickly beat a barren track through the very tender tundra vegetation. Vegetation is very slow to reestablish itself in these paths, especially if they are used year after year. But, you can see these paths, and funneling together at the crossings. That's what I was looking for. When you come to places like that very frequently in the vicinity you will find these stone constructions that are called Inuksuks -- which means looks like a man or something of that sort -- these are an aid in funneling the herd down into a hunter's ambush, as you probably know. Then off to the side of these places you may find hunting blinds, you may find at farther distances house rings of one sort or another showing the camps were nearby or, in fact, these camps may be a mile or two more away from the crossing place. But, there is a tendency to establish the camp at or near a crossing place.

Q. But these crossing places or these camps that you were speaking of were all camps that are in prehistoric times, as I understand your earlier evidence?

A. Yes, but some of them were also recent caribou people camps.

Q. Recent in what sense?

A. Historic.

Q. What year?

A. I couldn't say what year. You could look at a ring and you could make a crude separate of modern from perhistoric just by judging-- comparing the contents in terms of artifacts. If this has nothing but chip stone artifacts in it then we can assume it's prehistoric. But, if this one has a fragment of antler that's been cut with a steel saw--

Q. Then you know that's --

A. It may have been the current year.

Q. The last one hundred years or something like that?

A. The prehistoric post contact period or something like that.

Q. How do you know about the prehistoric ones? How do you know how close they would be -- what were water crossings? Are you going on the assumption that because there is a water crossing there today and those groups of settlements are there that that's where a water crossing was in the year 1200 or whatever?

A. Yes. We can extrapolate back in time carefully, to some extent -- we cannot go back forever and ever -- I discussed that point briefly in the report and tried to suggest, as I recall, that once the remnants of glacier had finally retreated from that region, whereupon there was a marine trangression from Hudson Bay, because the land was still heavily depressed from the weight of glacial ice, and once the ice melted back the Hudson Bay flooded in covering a vast area west of the Bay and, then, you gradually -- the land began to spring backwards into its normal pasture -- this is an event that is still going on -- and that is responsible for the creation of these various beach lines along. Anyhow, in attempting to analyze the location of these sites vis-a-vis the various beach lines, as I did and hoping that I might be able to

come up with some notion and relative chronology -- although it is a touchy business -- I arrived somewhere at the conclusion that the valley system ,as we see it today, had not . changed drastically in the last several thousand years. I could not be anymore precise than that. There seem to have been quite rapid isostatic rebounds in the beginning, followed by gradual, slowing rate of rebound.

Q. In that process of analysis --

A. So, what I am saying is that it seems as though these very same crossings would have been in significant use for quite a long time back into the past.

Q. And that same reasoning process would apply equally to the Indian camps that you spoke about, as to the Inuit camps?

A. I think so, yes.

Q. When you said there was sort of -- I believe you used the term heavily concentration of sites near one of the crossings at Aberdeen Lake -- what sort of numbers are you talking about there? What number of camps surround one crossing?

A. I would have to refer back to my field of journeys to give you

an exact answer on that. I made that judgment -- this was the stretch of narrows immediately to the west of Aberdeen Lake and it's indicated on the map that's reproduced in the Affidavit.

Q. As I understand it --

A. As I recall, I only delineated there two specific sites, but these were encompassed by an area that there were several hundred yards long, at least up and down the back, that went from the back of the river back in to the country about one hundred feet or more. In other words, a very substantial area, which at one time or another, had been spotted irregularly with encampments. This yielded a very substantial surface collection. This was perhaps the richest area -- it is a small area that I encountered on the whole survey and that's why I emphasized it in my report, because this is the thing Dr. Wright picked up as a possibility for future work, as I have indeed said it was. I thought it would be. It turned out to be a well worthwhile effort.

Q. Is your theory that these people who lived there killed the caribou as they crossed at those particular

crossings that you've identified?

A. Yes. So far as we know, back in the old days, virtually a good bit of this hunting, if not most of it, was done from kayaks in the water by spearing, but in some places there are -- I don't recall having seen any in the Thelon country but I have over in the Coronation Gulf and elsewhere -- I have seen rock hunting blinds actually slightly semi-subterrain in which the hunters built up a wall to conceal themselves and crouch down behind these things right alongside a customary path movement for caribou as they moved into one of these narrows. There caribou can be picked off here with bows and arrows, of course, with aboriginal weapons, mind you.

Q. And does the evidence --

A. With the bow and arrow and spear you have to take advantage of every trick you know. One of the best ways to hunt caribou is to get him swimming, even though they are strong. They are easier to pick off there than they are on dry land by far.

Q. Does the evidence show that the caribou would return to the same crossings where they had one time been hunted in previous years?

A. It doesn't seem to affect them at all, to my knowledge. If you want to check with some of the real experts back here on this matter. I would say in this regard they are fairly stupid.

Q. Does the evidence show that sometimes they would cross somewhere else where there was no settlement and --

A. I attended only to see the most evident crossing places as we would spot them from the pathways.

Q. So, you don't know whether these camps then moved from where there had been a crossing if the caribou moved across somewhere else and the camp followed to be at that new crossing when it occurred?

A. Well, I think more often than not the caribou would cross one point in a northward movement than in late spring. They would wander up around up here during the summer and then cross over at a different place, coming back southward in the late summer.

Q. The camps would have to move to be at that new place, I take it?

A. Yes, because these

places were known as -- remember, a hunter knows his animal in the most scientific way, through having observed his habits and movements all his life. The great virtue of these places is that it adds -- ejects a great component of predictability into the hunt if you can feel assured that your game -- your food is going to come trampling across out of nowhere the third week in August and cross the river at this point, how much easier it makes your food quest during that particular time. I have a couple of slides --

Q. I think we will have difficulty getting your slides into evidence.

A. Well, here is a small herd.

Q. No point in going into it.

A. Here is a small group of some twenty, twenty-five animals swimming back across those Thelon Narrows.

Q. How close are you?

A. I was up in behind the gravel bank at the top of the river. If I had a rifle and I was hungry I could have picked off half of that herd.

Q. Do you know how close

you were to them?

A. I was within one hundred feet of these animals.

Q. One hundred feet?

A. With even hardly trying.

Q. One hundred feet. Did they just come across the river?

A. Yes. I was out of sight.

Q. And they went right past you?

A. Yes. They angled past me up the bank. They did not see me. Of course, the rifle -- the repeating rifle obviously **has** brought great differences in hunting.

Q. You don't --

A. It has improved in the ease of hunting.

Q. You don't need to be an archaeologist to know that, I take it?

A. No.

Q. I take it you saw these various camps of different cultures in different places. Would it be fair to say that where you have these different people, sharing the same place over a period of time, that in the absence of the hard

archaeological evidence, which you've been able to come up with, you wouldn't be able to say definitely which people were there at any given period of time, unless you had the evidence and say, yes, these people were here?

A. Are you asking me if I could definitely establish some kind of a culture sequence of occupation at a given site, assuming they are not there at the same time?

Q. Yes, not all there at the same time and there are different ones here, here and there?

A. Yes, this could be done sometimes with a fair degree of certainty through the process of comparison, as I have tried to do by lumping together these complexes. Say we have half a dozen different manifestations around this great hunting area and they clearly come from different traditions -- the Indian, Eskimo, so forth, so on -- by this process of comparative extrapolation, then one can perhaps separate these out at some relative chronology -- relative sequence.

Q. And you have told us today, basically as definite as anyone can, on the basis of the evidence available

today, about this particular area?

A. Well, I guess I have. I have tried to be as certain as I could, when possible. You are aware obviously there are many uncertainties in this business of archaeological research, but we do the best we can.

MR. GRAHAM: Thank you very much.

THE COURT: Mr. Chambers?

MR. CHAMBERS: No cross-examination, My Lord.

THE COURT: Mr. Golden?

MR. GOLDEN: My Lord, if I may just deal with the geography briefly.

RE-EXAMINATION

BY MR. GOLDEN:

Q. I have frantically been searching through your paper to try to find the point which you determine that there is Paleo-Indian representation in the west Aberdeen site. Perhaps, with the risk of having to be corrected, can you tell me whether or not you are able to ascertain Paleo-Indian representation at the west Aberdeen site?

A. Wait a minute. I have to get my sites straight. Can you cite

me a number? Can you help me out with a number?

Q. That was the one left off and I think you have it as number AL9. I may be wrong.

A. Twenty years ago I could have rippled this off to you verbatim.

Q. You are not doing very badly today. If you can just review quickly for me the point at which you found Paleo-Indian site -- and I think it is the point at which Dr. Wright engaged in his work?

A. Yes.

Q. The location isn't as nearly as important as what happened there. Do you recall?

A. All right. I am coming up with it. Here we are. We are talking about complex B. Which particular site area were you interested in?

Q. I was interested in the one in which Dr. Wright also worked.

A. In my collection apparently -- wait a minute now. I do not see that listed under complex B.

Q. Designated AL7?

THE COURT: C has AL7.

Complex D has AL9. Neither of those are B.

THE WITNESS: No.

BY MR. GOLDEN:

Q. I am interested in the one in which you indicated a representation of Paleo-Indian. I understand there was more than one. I am interested in that one at Aberdeen?

A. Let me get that. Let me get the particular site here and see if it tells us anything. No. I apparently, -- I have to say apparently because at the moment I simply don't remember anymore and I am trying to get it out of here.-- I apparently did not find anything in the surface collections from that site that related back to the earliest of the occupation of Paleo-Indian. I don't see any particular reference to it. It should have been so-called complex B but that site is included in complex C.

Q. Is it fair to say that -- is it fair that there are a number of sites that you've described to us in your earlier evidence which had been represented in them this Paleo-Indian representation?

A. I suppose it's fair

to say that some of them might have something of that sort, yes. Might. But, these indications simply didn't show in the surface collection, nor in the limited test excavation that we made from time to time.

Q. Well, my friend, Mr. Heintzman, in his questions to you, referred to Paleo-Indian as though there was some significance in terms of the word Indian. Can you, again, -- you put I think in chief but I would like you to do it again -- put a time limit on Paleo-Indians?

MR. HEINTZMAN: My Lord, if this is the way the re-examination is going to go, we will be here a long time. The witness described what Paleo-Indian was. It's there on the transcript. We dealt with it there. With all due respect to my friend, that's not proper re-examination.

MR. GOLDEN: It's preliminary to another question.

THE COURT: Yes. Put the question in context, by all means.

THE WITNESS: Say again, please?

BY MR. GOLDEN:

Q. Can you put a time frame on the Paleo-Indians?

A. Generally, the Paleo-Indian occupation?

Q. Yes.

A. This is the earliest -- the first human penetration in this country, according to the evidence, and given the dates obtained by Wright at Beverly Lake and also at the Grant Lake site, Migod site done later by Gordon, what we do have is something back around 5000 B.C. as an approximate beginning date.

Q. Can you give us a closing date or a date beyond which you would not find Paleo-Indians in that site?

A. Well, you are asking now for us to establish a boundary line between cultural stages -- a boundary line somewhere in the evolution of the culture of the region. That's tough to do. It's very difficult to do. If you want me to make -- you see, we believe that out of this early -- earliest Paleo-Indian utilization of the country, there later developed the so-called Archaic Stage of Indian culture which was related more to forest adaptation. All of this, of course, traces back to the change in post Pleistocene period. Just exactly where one begins and cuts off is tough to establish definitely. If I were to pick out

one precise type of artifact perhaps to try to use that as an index one might take the particular point -- projected point that we've identified and relate it back to the Agate Basin down in Wyoming -- because this is one of the hallmarks of Paleo-Indian culture wherever you find it. It is a series of very specifically designed, styled projected points.

Q. I am not allowed to tell you why I am asking but I wanted to get --

A. Well, if we said these projected points appeared up to 4000 B.C. and then, boom, we didn't find them anymore, then, I would be inclined to say maybe the Archaic started around that time. Bring it up a little closer, maybe up around 3000.

Q. Taltheilei complex -- the Taltheilei evidence that's been referred to in Dr. Wright's paper and, indeed, you mention it in your work as well, is --

A. I am not competent to speak about that in much detail at all. This is Bill Noble's -- this is considered to be a late stage of the Archaic-Indian exploitation which all of a sudden we can identify and link up with contemporary Chipewyan

who are the Athabascan species of the Western Barrens.

Q. We have Exhibit P-10, which is a much larger scale map of the area we've been discussing. To identify the sites that my friend Mr. Heintzman referred to, we have the two sites on Grant Lake -- if we can just find Grant Lake.

A. Grant Lake is coming up due north here.

Q. The Dubawnt is --

A. Here's Grant Lake.

Q. Grant Lake is a tiny lake north of the Dubawnt Lake. There were two sites on that lake?

A. Yes. The first one discovered by Arthur Moffatt and re-visited by Dr. Irving in later years. It occurred actually on the northeastern shore of the lake, right at the point where the two streams cut down out of the interior and Wright went in there to re-examine that site more intensively. As I recall, it was he who discovered the other sites several miles farther north at the outlet at the Migod site.

Q. Your Taltheilei findings were where in physical location?

A. Well, these crop up in

the Aberdeen site right in here.

Q. We are looking at the west end of Aberdeen?

A. I have mentioned this in the report that Wright did more -- did more evidence concerning it.

Q. But that's where they show up?

A. Yes, more to the western end.

Q. Can you tell us, please, to the best of your knowledge -- I know that the boreal forests is an indefinite -- the tree line is indefinite -- can you tell us where in relation to those sites the tree line can be found -- where these trees begin to grow?

A. Well, as you have suggested, the notion of the tree line is an extremely vague thing. When you look at a physiographic or vegetative map of Canada you can define rather easily the deep boreal forest, which is a dense band of coniferous trees and several other species, and to the north, as this reaches the limits of optimum summertime temperatures normally held to be -- the July isotherm would be ten degrees centigrade -- this is held to mark approximately

the northern most limit of trees. Now, I can turn this into a big lecture --

Q. No, please, just try to delineate --

A. But I guess the point I should make is that the trees go from a deep dense forest, across a space of maybe a couple of hundred miles in some places, slowly fading out as they come closer to the limits of growth and ultimately disappear into the tundra. But, you have a transition zone here which, as I say, is maybe from ten to one hundred or more miles wide. This is the country that's rich habitation country for human beings.

Q. Who inhabits that country within the tree line, in the areas surrounding what you call the Barrens?

A. Well, I suppose one would have to say that this is primarily country inhabited by the Boreal Forest Indian group, but also a country to which the Eskimos come in time past to collect wood. Here, essentially along through this transition country, is where the contacts between these people had occurred, whether peaceful or --

Q. Yes.

A. It is a zone of tension.

It has a term -- an ecological term -- it's called ecotone, and it means essentially a zone of tension wherein you have a meeting of characteristics of the merging of these.

Q. My friend referred you to Dr. Wright's paper. He has been kind enough to lend it me. I would like to read to you -- just examine the last paragraph on page 78, 79, through to the end of the sequence and then just tell us what Dr. Wright is saying about his Aberdeen Lake finds or his Aberdeen Lake examination of your finds.

A. Wright pretty clearly was able to distinguish these stages that I hypothesized earlier, beginning with the Paleo-Indian expression and followed by the Archaic, and somewhere in this same period, whether it is coeval or sequential, -- we are not exactly certain -- there is a slight suggestion of pre-Dorset Eskimo occupation merging into the later Archaic which can be given a name, Taltheilei or whatever, and that ultimately becoming modern contemporary identifiable Indian groups and, then, the Eskimos continue, and then the same thing. However, he did not find all of these. But, he introduces a new name in here because he has a little theory of his own,

as most of us do, I guess -- he identifies a phase or stage which he calls the Shield Archaic. He has certain identifying characteristics for this. But, the point is, using that word Shield to him means this correlates geographically with the Shield country surrounding Hudson Bay. He views this particular country as a sort of biome.

Q. Is he talking about the same thing as we talked about when we talk about the Barren or Shield sometimes?

A. Well, certainly in some places these would co-incide as physical expressions, yes. He's talking about Shield Archaic and that's largely barren grounds in this part of northeastern Canada, central Canada and it's partially forested in some areas.

Q. What I should like you to do --

A. I don't know.

Q. Dr. Harp, what I would like to do is, either dealing with it on the basis of what Dr. Wright had written, or on the basis of your own knowledge of all the research -- that is your site, the west Aberdeen, the Grant Lake site, even Samuel Hearne's voyage, if you like --

and what I would like you to do is indicate the likely areas of occupation at any time, whether seasonal or otherwise -- I gather it has all been seasonal -- of the Chipewyan graphically, hopefully using this map, if you can.

A. I cannot for a moment stand here as an expert on Chipewyan culture, please. I have, insofar as I have known of them and about them, equate them with the forest country and the transitional forest country which lies south and west of the tundra. In my own mind I consider the Northern Arctic Tundra, lying above the tree line, to be essentially Eskimo country. In my opinion, it has been the Indian peoples in the past who, I would regard, as the intruders of that country. Maybe I am overstating that case. Maybe one to be fairer ought to admit that both of these peoples have from time to time penetrated this transitional zone so as to exploit it for their own cultural purposes.

Q. Yes.

A. In the final analysis, both of them have not been able to maintain successfully, for any significant length of time, permanent occupation in this

country. They have each had to retreat or withdraw, whether southward or northward, out to the coast, to more congenial environments, which they knew how to cope with and exploit with a greater degree of success.

Q. We seem to be having a little problem with geography, and that's what I am trying to deal with in relation to the writings that have been read to you. There were considerable writings read to you. I should like to deal with the geographical aspects of those writings.

THE COURT: We are at a point where I have a feeling that probably your examination was going to go on some time. The questions and answers are lengthy. Selfishly, I am quite prepared to sit and to see Dr. Harp finish his testimony today, but if it is going to be very long, I wonder if that's fair to anyone. The longer the day gets the harder it is to cope and understand.

MR. GOLDEN: May I ask the witness what his wish is in respect of that? He may have some travelling plans which I am not aware of.

THE WITNESS: I have not made firm plans to return. I am amenable to whatever is convenient to the court, My Lord. If this involves my re-appearing again in the morning for a time, that wouldn't discomfort me in any way. I will simply leave in the afternoon.

THE COURT: In that case, perhaps we should recess now until 9:30 in the morning.

MR. GOLDEN: Thank you, My Lord.

THE COURT: I think probably I should instruct you, Dr. Harp, at this stage of your examination that you ought not to discuss your evidence with anyone at all. You will certainly not be approached by any of the lawyers who got you here, but you should not discuss what you have said with anyone at all.

THE WITNESS: Very well, I understand, My Lord.

---COURT ADJOURNED TO May 31st, 1979, at 9:30 a.m.