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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

Vancouver, B.C.
December 4, 2006.
THE REGISTRAR: Order in court. In the Supreme Court of British Columbia at Vancouver, this 4th day of December, 2006. In the matter of Lax Kw'alaams Indian Band and others versus the Attorney General of Canada, my lady.
THE COURT: Thank you.
MR. RUSSELL: My lady.
THE COURT: Mr. Russell.
MR. RUSSELL: My lady, we have a binder of some of the documents that may become exhibits this morning. We could pass that up now if your ladyship so desires, or we can deal with them one at a time. They may not, some of them may not; it will depend upon the question.
THE COURT: Has Mr. Kirchner seen them?
MR. KIRCHNER: I have the binder, and I have no objection to proceeding that way. The binder is not to be marked as an exhibit. It's simply for convenience, as I understand it, so that we don't have to shuffle paper all day as we, as Mr. Russell moves through the material.
THE COURT: Yes, and some of it may or may not be marked as an exhibit, depending on the examination; is that correct?
MR. RUSSELL: Correct, my lady.
THE COURT: All right. We can proceed that way.
MR. RUSSELL: All right. My co-counsel, Ms. Vigneau, will give them to you.
MS. VIGNEAU: My lady, there are tab numbers there to make it easier to refer to these. Now, it might be that the exhibit numbers will be different from the tab numbers.

THE REGISTRAR: Just a reminder, Dr. MacDonald, you're still under oath.
THE WITNESS: I beg your pardon?
THE REGISTRAR: Just a reminder, you're still under oath.
THE WITNESS: Yes, thank you.
GEORGE MACDONALD, recalled, warned.

CROSS-EXAMINATION BY MR. RUSSELL, continuing:

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Q Dr. MacDonald, will you return to where we left
off, which was, we were talking about Mr. Ferguson.
A Right.
Q And I have a few more questions about Mr. Ferguson first. Doctor, you have relied on articles by Ferguson before; is that correct?
A I am much more aware that he used my material than I used his. I may have referenced him somewhere, but I've never considered him a major source because he's not done primary work in that area.
Q And I ask you to turn to, this is the binder that we just forwarded up, it's tab 3 in that binder. This is your 1979 Kitwanga Fort manuscript report?
A Correct, yes.
Q And this is referred to in your bibliography at page -- of the final report?
A That's correct.
Q That's the final report that's evidence in this case?
A Okay.
Q Is that right?
A Yes.
Q Now, if you could turn to page 10 of this document,
you see there in the, just the lower half of the page it says:
"In a recent study of northwest code warfare, Ferguson (1979B:4) states:
'The river mouths also were centers of trade both before and after contact. Furs and other items from the interior were traded down the valleys and western buyers clustered around the estuaries. Control of this trade was a continual source of conflict.'
In particular --
And this is going, this is outside the quote now:
" -- reference to the Skeena Estuary, he states (Ferguson 1979B:6):
'Boas' (1970:335-378) informants recalled a long series of exterminative raids fought between the Tlingit and Tsimshian over control of the Nass and Skeena estuaries. These occupied most of the eighteenth

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century, with the Tlingit finally being defeated and pushed north'."

So that's a place where you refer to Ferguson in one of your previous articles?
A Yes.
Q Is that correct?
A Right.
Q And in particular, you relied on Ferguson for that point?
A Well, yes. I relied on him in terms of the mouths
of the rivers which I was talking about, but he ignores the conflicts that were going on in the interior, which were the ones that interested me the most, in the area of Kitwanga and up at the big fur trading at Hazelton, which were the conjunction of the major trading routes that I was travelling -- I was documenting in my study.
Q All right. But in -- but you do rely on him in that place, for sure?
A I refer to him.
Q Yes. Now, let's turn to tab 4 in this new binder. I would ask you to turn to page 39 -- page 20 , it's Roman numeral XX. So if you don't have, it's about 20 pages in, and it's got a double $X$ at the bottom, and it's entitled "Warfare" at the top?
A Is it before the maps? Yes, it must be before the maps.
Q Just before the maps, yes, before one of them.
A The last page before the maps?
Q It's the last page --
A "During the eighteenthth century"?
Q It's headed -- it's, no, it's after those maps.
A How many pages, may I ask?
Q I would say it's about 25 pages in.
A Oh, past that.
Q It's headed "Warfare"?
A Now, I have one called "Warfare".
Q And at the page it's double $X$ ?
A Yes.
Q Okay. Now, and in particular this also is an article, this "Tsimshian Narratives 2" is also an article that you referred to in your bibliography in the final report, this, before this court?
A Yes.
Q Again, here we see it looks like the same reference in the upper part of the page; in particular,

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reference to the Skeena estuary, he states "Ferguson 1979B".
A Exactly, in reference to the estuary, the Skeena, yes.
Q For the same point. I ask you also to turn to what's tab 5 in this new document, and page 4 of that. It's the same reference in the middle of the page?
A Yes, because --
Q The same point?
A I referred to him because I had done my studies upriver, and that was a reference to downriver as well.
Q All right. Now, those Ferguson references, they in turn rely on Boas?
A They rely on a whole series of people that he extracted in his secondary research to come up with that statement.
Q But in particular they rely on Boas, the Ferguson site?
A They rely on Boas 1916, prior to any radiocarbon dating that was available to archaeologists; hence, the dating is incorrect totally. It was 1800 BP rather than 1800, 18th century, which he is talking about, because Boas had no way of dating any of the stories, and assumed, as most people did, at the time they had no time scale. In fact, we know now that they had in fact a great deal of time scale.
Q Well, let's look at the stories of Boas, see what we can see about those, doctor. So I have the Boas 1916 references, so if we could turn to that, and that is tab 6 in this binder.
A The publication dated 1909 to 1910, which actually makes it an even earlier statement. It wasn't published until Washington got around to it in 1916.

Q Yes. In particular, I'd ask you to turn to page 376?
A Uh-huh.
Q In the middle of the page, where it states:
"The last war with the Tlingit was when the Tsimshian were coming back from Nass River."

See that paragraph?

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"This was in the generation of my grandmother and my grandfather, the second year after the white man arrived on this coast. They knew then how to use guns. The Tlingit were the first to meet white men at Old Tongass."

A In fact --
Q That's clearly a reference to something that is happening in either post-contact or in the proto-contact era?
A But it has nothing to do with the battle over the Prince Rupert Harbour. It's a late battle with the Tlingit. There are battles into the 19th century with the Tlingit over specific issues. That was not part of the Tlingit wars.
Q Doctor, I am not suggesting that this is the same battle.
A No.
Q I'm just pointing out that there were battles happening at the time of contact and after?
A Correct.
Q With the Tlingit in this area?
A And until the British brought the Pax Britannia to the north coast, that continued on.
Q In particular, this is talking about battles after contact?
A Yes, but nothing that I've referred to in there.
Q And again, at page 377, towards the top, it's a separate, first of all, paragraph:
"Our grandfathers and grandmothers have never forgotten this war, when the warriors of the Tlingit were coming up to fight against the

Tsimshian, on their way from Nass River. My grandmother's uncle was killed in this war."

That's again the same reference to the battles?
A But again, it refers to the fact that they say "grandmother and grandfather", meaning ancestor, that would be the translation in English. So they say my ancestors had a war with the Tlingit, is their meaning, I would propose there.
Q And again, on page 370, in the middle of the paragraph beginning "Three or four generations":
"Three or four generations before the white man arrived on this coast there were many wars.

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The Tlingit gained many victories... the Tlingit pursued them everywhere, wherever they went to hide on the mountains. Therefore all the Tsimshian went up Skeena River, so that the Tlingit could not follow them... Then the Tsimshian -- nevertheless they kept watch over them. Then the Tsimshian were safe on Skeena River."

And I'm going to skip down to the next paragraph:
"Not one tribe remained at the old town of Metlakatla or anywhere on the seashore. This whole country was taken away by the Tlingit as far as the mouth of Skeena River."

Again, this is talking about something, now it says here "three or four generation before the white man arrived". Is that possible that it's a reference to the white man arriving and establishing Fort Simpson in the 1830s?

A Well, it's probably to do with the fur traders coming on coast, was the whole episode of maritime fur trading, but --
Q This would be in the 1700s?
A Yeah, but it's -- well, they, the point is that the chronology was pre-archaeology, and that's what us archaeologists have contributed, is the time scale to the oral narrative, and Boas had no knowledge of that.
Q But the radiographic dates --
A Radiographic --
Q -- don't relate to the same battles as these, do they?
A They relate to the battles over the Prince Rupert Harbour, which is primarily what my writings have been about, as well as the forts in the interior.
Q But doctor, these, these portions of the text we've just been reading from Boas, they don't relate to the same battles that you're talking about in terms of the 1,800 before present?
A I am saying that I believe that there were two problems. One is that Boas was taking the literal statement without having any chronology to compare it against, and assuming that the reference to "grandparents" meant one generation. There were conflicts, I'm certainly willing to agree with

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that, from the time, as it states here a little bit before that, from the time of the deluge, when the Tsimshian had power over the Skeena River, until the British came in and had gunboats off the coast, which was essentially around the 1850s, and that brought an end to the warfare on the coast. Prior to that, warfare was particularly continuous of the late period, when you had extensive trading, and you had parties of warriors looking for slaves as
part of that status system.
Q And doctor, the first reference we looked at here?
A Which is on page?
Q No, no, forgive me. Yes, the first reference on page 376, that was the one, it refers to guns, the use of guns. So that clearly is after, after contact?
A Certainly the use of guns is after contact.
Q All right.
A However, the stories are collapsed, and the archaeologists have had to pull them apart and crosslink them to historical archaeology, or to prehistoric archaeology.
THE COURT: Mr. Russell, I'm just concerned that perhaps you jumped into an area without laying the foundation, and I mean, obviously Dr. MacDonald knows the area, but for me and for the record, I don't know who Boas is, I don't know where his stories come from. I don't even know where these articles that you're putting to Dr. MacDonald come from. So if we could do that first, I think it would help me understand better the point that you're trying to make. I shouldn't say I don't know who Boas is, but the point is, for the sake of the case, I don't think it's something I should be taking judicial notice of, I think that should be in the record.
MR. RUSSELL:
Q Now, doctor, I don't have that portion of the transcript, but I believe you talked about Boas in your evidence already in this trial?
A No doubt I've mentioned him.
Q And Boas was an ethnographer of the -- who worked with the Tsimshian in Victoria in 1866?
A Boas was a marine biologist who did his study on water temperature and plankton off the coast of Ellismere Island, and took an interest in the Inuit people, and eventually worked for the Columbia

World Fair on their exhibition, and was introduced to the Indians of the northwest coast, and in fact did studies of all of the native groups under the Jessup North Pacific Expedition that was funded by the American Museum of Natural History. He spent most of his time among the Kwakawakau' people of Vancouver Island, and made two brief trips into Tsimshian territory around 1898, where he stayed for one week or so in Port Essington, and he made a brief trip to the Nass.
Q So that's in the 1890s?
A Yes.
Q He may have also worked, and I don't know if you know this, but at Tsimshian in Victoria in 1866; are you aware of that?
A He introduced -- interviewed many people who were coming through Victoria for trade.
Q And Boas's full name is Franz Boas, with a Z?
A Correct.
Q And he also worked with Beynon, William Beynon?
A Yes, after Beynon, after the depression Beynon advertised his availability, and he was hired briefly by Boas because it was -- he, Boas died in 1940, and so it wasn't a long period of time that Beynon actually sent his books to New York. Prior to that they were all sent to the museum in Ottawa, and after Boas died they were again, after the war ended, sent to the museum in Ottawa.
Q And William Beynon was from Port Simpson?
A Yes.
Q So he is a Coast Tsimshian?
A Yes, he's a Coast Tsimshian.
Q And he was not an ethnographer himself, William Beynon?
A He is being called an ethnoscientist by Marjorie Halpin, who has done a biography on William Beynon in a book on native scientists that have been recognized for their outstanding contribution. So he studied Tsimshian history all of his life, and was coached by Boas and Barbeau.
Q So is it fair to call him a field worker for Boas?
A The preference now is to call him a native scholar collaborating on research work, not paid informant,
which has a derogatory sense to it. He was far more than a paid informant.
Q But he has in the past been called a field worker for Boas?

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A I don't know. Possibly so.
MR. RUSSELL: My lady, is that sufficient introduction with regard to Franz Boas?
THE COURT: Yes, thank you.
MR. RUSSELL:
Q So now, doctor, I return to the 1984 article by Brian Ferguson entitled "Warfare, Culture", a book entitled "Warfare, Culture and Environment", and ask you if this is -- well, my lady, we've established a fair degree of -- I'm wondering now if now is the right time to have a, make a decision on whether or not it can be entered as evidence.
THE COURT: Well, do you have any more questions for Dr. MacDonald regarding Mr. Ferguson or this text?
MR. RUSSELL: Not for the text as a whole, but I would have for a particular paragraph, yes.
THE COURT: All right. Then we may have to deal with that in a different way, depending on my ruling on whether this is authoritative or not. Did you have any more questions for Dr . MacDonald regarding the authority of --
MR. RUSSELL: The only -- sorry, my lady. The only part of it I'm interested in is, in fact, the particular paragraph in --
THE COURT: Well, then I think really what you probably want to put to Dr. MacDonald is, because he has said that the text is worthy of consideration, although he doesn't consider it authoritative because it makes so much use of secondary sources, so perhaps you could go to that specific area and say, would you consider this portion of the text
authoritative. It's a little unusual, but I'll let you ask him that.
MR. RUSSELL: Thank you.
Q So Dr. MacDonald, I'd ask you to look at, this is Ferguson's 1984 work, and I'd ask you to look at page 274.
THE COURT: I have that already. Well, really, I think it goes back to, there's a section or a chapter on the Tlingit, and that's the section that you're going to ask questions about; that is correct?
MR. RUSSELL: It's essentially the same text, yes.
THE COURT: Then I think you need to lay the foundation as to Dr. MacDonald's opinion of Dr. Ferguson's work in the area of the Tlingit, whether he would accept that as authoritative or not, and depending on his answer, we'll take it from there.

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MR. RUSSELL:
Q So doctor, with reference to, if I may, with reference to -- it's the several sentences in the middle of the first partial paragraph on page 274.
THE COURT: Well, no, that -- I obviously haven't made myself clear.
MR. RUSSELL: All right.
THE COURT: You may or may not be able to ask him about that, but what I want to know from Dr. MacDonald at this point is whether he will agree that Mr. Ferguson's work on the Tlingit that's contained in this portion of this textbook could be considered authoritative.
MR. RUSSELL:
Q All right, doctor. So -- thank you, my lady. And here we're not talking about what archaeological evidence or radiographic dating that may date back certain matters to 1,800 years before the present. We're talking about the information that Boas was
talking about and that Ferguson is relating, has related in the earlier texts, the 1979 text, which you yourself have cited in several articles of the book. In that context, is Mr. Ferguson, can he be considered authoritative with regard to his interpretation of Boas's works with regard to Tlingit presence in the area in or about the 18th century?
A Not in terms that archaeologists would accept, because it is old, irrelevant information with no commentary by Ferguson on the fact that he's referring to what happened when the Tlingit got guns, which launched a whole new series of wars, as opposed to the wars in which they were fighting over the Prince Rupert Harbour, 1,800 years or 1,600 years prior to the introduction of guns. Guns certainly triggered the expansion, again, of all the people who were on the outer coast and got guns first from the maritime fur trade, and included the Haida, the Tlingit, the Nuu-chah-nulth. They all then had the advantage over the inland people, so that they would use their guns to get furs to trade to the fur traders. So that was a whole other separate -- it's like talking about the First World War versus the Second World War. They actually -- but these were separated by 1,600 years at the minimum.
Q Yes, doctor, but my question --

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1 A And Boas didn't realize --
2 Q -- would relate to the second World War, not the
3 First World War.
4 A But Boas didn't realize there were two world wars.
5 Q Maybe if I can repeat that question.
6 A Yes.
7 Q My question, doctor, is directed, in terms of your
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analogy, it's directed at the Second World War. It's not directed at the First World War, it's not directed at what may have happened 1,800 years before the present?
A But Boas --
Q It's only focussing on the Second World War period in terms of your analogy?
A But all of the references Boas makes are to oral histories, which conflate the two episodes of the Tlingit wars in the Prince Rupert Harbour and the wars with the guns of the 18th and 19th centuries.
Q Is this a problem with oral histories generally, that they can conflate time periods?
A It's exactly the problem of the biblical archaeology, that there is a narrative which has continuity but needs to be tested against the archaeological record, and that's what I've devoted my life to.
Q So are you denying that there's any archaeological record of exterminative raids between the Tlingit and Tsimshian in the 18th century?
A I did a lot of work on that at the Kitselas Canyon with some very reliable informants, and in fact, there were raids from the coast into the interior, but primarily about Haida raids. And so any of the narratives that I heard were primarily about Haida, not about Tlingit. So exactly the same thing happened, the Haida were raiding at the same time as the Tlingit; the reference is to the Tlingit, but the oral history is more focussed on Haida raids into the Skeena estuary with guns.
Q So doctor, you're not talking there about archaeological evidence, you're talking about narratives?
A Right.
Q What about the archaeological evidence?
A Well, that's the point that they, the people that we were working with with the oral narratives were able to point out archaeological features which we validated, which included lookout sites on the
highlands in Kitselas Canyon, and other lookout sites in which, when the Haida appeared, or the Tlingit, I assume, that there were signal fires lit, one after another, up the Skeena, and within a matter of hours, warriors from the Kispiox and as far up the river as Kuldo could come down to help defend the mouth of the Skeena.
Q But is it fair to say that archaeological evidence to date cannot deny that there were exterminative raids by the Tlingit, fought between the Tlingit and the Tsimshian over control of the Nass and Skeena estuaries in the 18th century?
A Well, I would certainly say the exterminative raids is a total misconception. There were slave raids and raids for booty, which mainly meant furs, coming from all the groups of the outer coast to the groups on the inner coast.
Q Doctor, I'm not after your conclusions on this, what I am after is the archaeological evidence. Is the archaeology there to deny these exterminative raids?
A The archaeology which I did at the Kitwanga fort site, for example, found pieces of flintlock guns on the slopes of the hills, so there's definitely evidence of warfare in that area, but the confirming evidence was that these were all raids from other groups on the coast, primarily Haida, rather than Tlingit. However, I would say that the Tsimshian acknowledged that the iron pots we excavated at that area had originally come from trade with the Russians via the Tlingit.
Q So it is fair to say that the archaeological evidence does not deny the exterminative raids?
A Well, exterminative is, the archaeological evidence is definitely against exterminative raids; raids of other sorts, maybe.
Q What archaeological evidence, doctor?
A The Kitwanga Fort material, for example.
Q That's in the interior, is it not?
A That's in the mid-range of the Skeena River, which of course, within not Coast Tsimshian territory, territory.
Q I'm talking about the Nass and Skeena estuaries.
A Well, the only forts that -- the only fort that has been excavated is the fort at GbTo:33, which is the Lachane site, which was part of that 2,000 year

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history of raids into the interior, into that area. And then Richard Inglis did the K'nu site, which was occupied throughout the 19th century, beginning a millennium ago, and there were, there were evidence of large houses, and I would have to check back to see what there was in the way of evidence of warfare there, but there was evidence that that village had been fortified recently, or the fortifications had been maintained, because that site was occupied during both the early war, as I will call it now, for the Prince Rupert Harbour, and later raids that would have come during the early fur trade period when guns were suddenly available.
Q But right now, doctor, you are not able to point to any archaeological evidence that denies the exterminative raids in the 18 th century as between the Tlingit and Tsimshian in the, over control of the Nass and Skeena estuaries; is that correct?
A I would simply say that there is no evidence of exterminative raids anywhere on the north coast in that period.
Q No other --
A There were raids for booty and for slaves.
Q In terms of archaeological evidence, you're saying there's no evidence of it?
A There's no evidence of any major warfare of any kind in the north coast.
Q Is there any evidence that it didn't happen?

A Not that I'm aware of, because nobody's looked for it or even thought of looking for it.
MR. RUSSELL: Thank you, doctor.
THE COURT: All right. Now, are we going to deal with, are we going to deal with this --
MR. RUSSELL: No, my lady. I think we have the evidence on this now.
THE COURT: You're content to leave it at that then?
MR. RUSSELL: Yes.
Q Now, doctor, in your final report bibliography you refer to an introduction written by yourself and Jerome Cybulski for the Prince Rupert Harbour Project and Perspectives on Northwest Coast Prehistory?
A Yes.
Q I'm going to produce to you, going to produce to you a copy of that introduction, and I would ask you to turn to page 13. And it's the partial

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paragraph at the top, the second whole sentence, and I'll just read it out, the second and third whole sentences. "The Boardwalk site", that's, that's one of the sites in the Prince Rupert Harbour area that's been archaeologically excavated, doctor?
A Yes.
Q
"The Boardwalk site appears to have been one example of a temporary population exodus from the area. It appears that the harbour was gradually reoccupied sometime before the era of native contact with Europeans until nine winter village tribes moved to the Hudson's Bay Company built just north of Port Simpson in 1834."

A Yes. I did not write those words, but I agree it is in the article that I contributed to and jointly used as the introduction to the volume. Those are Archer's words, I believe. Again, since there's no time depth there, it just says "was gradually reoccupied sometime before", contact with Europeans, which I don't deny; but it doesn't mean immediately before contact with Europeans.
Q But nor does it mean a long time ago either?
A It's floating.
Q Yes, thank you. Now, if I may have Exhibit 10 placed before Dr. MacDonald; that's the working notes, my lady. We looked at these somewhat already, earlier on in this cross-examination, doctor. Do you recall that?
A Yes.
Q These working notes include notes of the research work you were doing in preparation for this report; is that correct?
A Plus the notations that were made up to the time I handed over the document to you two weeks ago, or whenever that was.
Q Yes. Yes, but apart from those three extra pages I think you're referring to, and a few others handwritten --
A Well, yes. We haven't quantified them, but it's somewhere in that area.
Q But in those working notes, there's the notes of the research work that you did?
A Yes.

A They're not all dated, so I'm not sure how you would determine that. The last date may have been there.
Q If you go to the last date.
A And what page is that on?
Q I think it actually has quite a few pages of notes for that date. It's page 18.
A And the date you said, I'm sorry, was?
Q The date of March the 26th. That's the last date in these working notes, isn't it, doctor?
A Uh-huh. Well, I will look through and see. I don't --
Q Sure.
A Don't always date the notes, so. That's the last one I see going through here; the last date is, I'll say the $23 r$ d of March. It was probably sometime just after that that I started to draft the actual document, and I just began to put the notes directly in as I came across references into the document itself.
Q So are you saying that you did some further research, but you may not have made working notes with regard to that?
A Right. I incorporated them directly into what I was working on at the time. And by that time the last notes in here are an organization, I think we covered that the last time, of the ideas to begin writing, so those are around the 23 rd of March that the organization of the material on trade appears in the, in these notes. And then I began to draft the report after that period.
Q So any further research that you did that is not reflected in the working notes, you would have placed, if you place it into your, say, the draft report, you would have put the article, the year and the page number?
A In most cases I would give full reference to -- if I had decided that that was something that I wanted to include in the report, I would -- very often what I do is to know where I can put my hands on a copy of the report. It isn't possible always to get copies of them. I rely very heavily on the
library at the museum in Ottawa, and I was there during March and then I came back to Vancouver. So from that point on, I would enter any items that came to my attention that were relevant into the draft of the text, and it was a progressive draft until the final one was completed.
Q But again, when you actually got a copy of the article you were interested in reading, and if you didn't make working notes, you would have placed -and, but rather, placed it straight into the report, and you would have put a page number of a particular reference; isn't that correct?
A I would attempt to do that if I was writing it, for example, on the plane, which I often do work on the plane, then I'd put what I -- I'd put Boas 1916, and then I would later on look up the page number to fill in the reference, which is typically done in writing an article.
Q So the page reference would end up in the report?
A Right.
Q Now, doctor, since -- well, at the time when you were last here on the stand, your counsel had produced to us, to counsel for the Attorney General of Canada, some e-mails and drafts that had not been produced to date, so I'm going to ask those be produced now. So we'll start with draft, the first, what $I$ take to be the -- all right. That's in draft one, that's in tab 1 of the binder that you have. And doctor, I'm also producing, it's the e-mail from plaintiffs' counsel to the Attorney General of Canada dated November 22nd, 2006, that enclosed this document plus some other documents, and two other e-mails of April the 18th, 2006, apparently from yourself to plaintiffs' counsel, so if I may produce those as well. Now, if you just want to take a moment and familiarize yourself --
A I don't have a copy.
Q Okay. And doctor, there's also at tab 2 a second document which may well be a draft of a report as
well. That came with the e-mail of November the 22nd, 2006.
A It was sent on July 15th, which is essentially when I completed and sent in the report, so it probably is the final.
Q All right, doctor. First, the first e-mail of April the 18th, 2006, that's an e-mail that you sent to the plaintiffs' counsel on April the 18th,

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| 1 |  | 2006? |
| :---: | :---: | :---: |
| 2 | A | Yes. |
| 3 | Q | And this e-mail attached a draft of the report? |
| 4 | A | It doesn't say so. Oh, "attached is the draft of |
| 5 |  | the file", okay. |
| 6 | Q | Do you recall -- |
| 7 | A | It does say so. I usually put, you know, |
| 8 |  | "attachment", but it wasn't -- yes, okay. It was a |
| 9 |  | draft. |
| 10 | Q | Do you recall if that first document at tab 1 is |
| 11 |  | what was attached to that e-mail? Your plaintiffs' |
| 12 |  | counsel does -- |
| 13 | A | It looks early. Sorry. |
| 14 | Q | Sorry, doctor, I didn't wish to cause any |
| 15 |  | misunderstanding here. Your plaintiffs' counsel |
| 16 |  | have advised us that it is what was attached to |
| 17 |  | that e-mail. |
| 18 | A | Yes, it looks like the time frame would be right |
| 19 |  | for this. |
| 20 | Q | So is this your first draft of your report that |
| 21 |  | you, or the first one that you provided to |
| 22 |  | plaintiffs' counsel? |
| 23 | A | It is the first one I provided to plaintiffs. |
| 24 | Q | All right. So this one in particular, for ease of |
| 25 |  | reference, does not have a date on the front? |
| 26 | A | Right, because it's marked "draft". |
| 27 |  | COURT: Did you wish at this point to mark it as an |

exhibit?
MR. RUSSELL: Yes, my lady.
THE COURT: And did you wish to mark the bundle of e-mails as --
MR. RUSSELL: And the bundle of e-mails, yes, my lady.
THE COURT: So let's mark the bundle of e-mails collectively, two pages, as the next exhibit.
THE REGISTRAR: Exhibit 16, my lady.
EXHIBIT 16: Three pages of e-mails
THE COURT: Thank you. And the draft report at tab 1 of this white binder will be Exhibit 17.

EXHIBIT 17: Draft report of Dr. MacDonald
THE COURT: While we're at it, Mr. Russell, this introduction written by Dr. MacDonald, "Perspectives", did you wish that marked as an exhibit or not?

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

MR. RUSSELL: Yes, my lady.
THE COURT: All right. We'll make that Exhibit 18 then.
EXHIBIT 18: Introduction written by Dr. MacDonald entitled "Perspectives"

THE COURT: Madam Registrar, do you have a copy of this?
THE REGISTRAR: I believe the witness does, my lady.
MR. RUSSELL:
Q Now, if we could also have Exhibit 7, that's the final report, also produced to Dr. MacDonald. And what I want you to note, Dr. MacDonald, is that the version of the report at tab 2 in your binder is not the same as the final report, so if you could just check that.

A Well, do you want me to read all pages and check them against all the --
Q I think you can find out -- the main first page, in fact, it's in tab 2, the heading refers to Metlakatla and Lax Kw'alaams, whereas the final report does not in the heading. If you open up --
A Yes, I reread the submission and realized it was just Lax Kw'alaams that was in, producing the action.
Q Yes, doctor.
A And so I took Metlakatla off the title.
Q But my point here, right now, rather than focussing so much on Metlakatla, is to point out that it's not the same document because of that, at least?
A So that word change, yes, that, I made that the same day.
Q All right. So there are -- all right. The version that is at tab 2, do you recall when you sent that to plaintiffs' counsel?
A It was on July 15th, and then sent to subsequent, the -- it was the same day that I decided that that was the wrong title, and changed the title.
Q All right. And were you in Vancouver at that time?
A Yes. Let me think. I'd have to -- did I bring my notebook? July 15th, hmm. Yes, I believe I was. I go back and forth every month, so I'd have to check the exact day, but I believe it was -- yes.
Q Would that be something you would be able to do by tomorrow?

A Yes.
Q Perhaps you could do that.
A Right.

Q Does that calendar also have the dates when you did research --
A No.
Q -- for this, all right.
A No, it's a travel calendar.
Q And so if you could, if you could bring that in tomorrow.
A Verify that date.
Q I would be -- would you do that, please?
A I'm pretty sure I just returned from Ottawa to Vancouver, because my birthday's July 4th, and I had that there and then came back, but I'll verify exactly what day I came back.
Q All right, doctor. Now then, the draft at tab 2, that is a second draft that was done by you?
A It's, it's the final work with the change of the title to "Lax Kw'alaams".
Q So you recall only giving the first draft we've looked at, which is now Exhibit 17, and then this document here you're looking at, which is in tab 2, and making only the one change?
A Do you see other changes?
Q Yes.
A Okay.
Q Do you recall making other changes, doctor?
A I recall doing a very last version of it, so that the last items that I thought needed adjustment, and I noted that I hadn't adjusted it from "Metlakatla/Lax Kw'alaams" to just "Lax Kw'alaams", so I made a revision on that. Whether I did, I -I'm sure I would have read through it one more time to fill in references to bibliography, because I ran out of time in terms of bibliographic research that I was able to do while I was in Ottawa in the library, where I knew they had that material. So depending on, if there were minor changes between the first draft and the second draft which -- well, that's not the right terminology; between the one under tab 2 and the Exhibit 7.
Q There were not many changes?
A Not many. I'm trying to recall whether there were, in my view, substantive. I was trying to bring the document to its most complete stage, so I don't, I don't recall writing any new sections. I was


THE REGISTRAR: Order in court.
MR. RUSSELL:
Q Now, doctor, just returning to the final report, do you recall how you gave the final report to plaintiffs' counsel? Would that have been in person?

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

A No, I believe I had my secretary just send over the final report on a disk.
Q All right. Now, also looking at Exhibit 7, which is the final report, that's the one in the separate cerlox binding?
A Right.
Q The second sheet, that's your signature, is that correct?
A Right.
Q And this is an undated signature page?
A Yes.
Q Do you recall if this signature page came with the draft two, which is now Exhibit 19?
A I didn't think so. I thought it came with the last one, but I didn't make particular note of that.
Q All right. Do you recall making a separate signature page, or did you just make some changes and use the same signature page?
A I don't recall --
Q All right.
A -- which I did there.
Q Now, I'd ask you to turn to draft -- I'm calling Exhibit 17 draft one, and then Exhibit 19 is draft two. So draft one is the undated draft, that's at tab 1.

A Oh.
Q I'd ask you to turn to page 10, the upper, or the paragraph at the top, and you see that there's a paragraph there starting with the words "there were strong prohibitions", and then at the end of the paragraph it's got a partial reference, by that I mean it refers to "Boas 1916:", and then "note page number"?
A Yes.
Q And so this is an example of doing a paragraph from memory that you were going to check later?
A That was to do with the first salmon ceremonies in the Kitselas Canyon, which I referred to many times, but I didn't know exactly which page number it was.
Q All right. So in particular though, it's an example of you doing something from memory at this stage in terms of this draft?
A Right.
Q And I'll ask you to turn to the second draft, so that's tab 2, Exhibit 19, page 14 in the middle, and if you can keep -- sorry, if you can keep the it's not the cerlox binder, bound version.
A Okay, I've got this.
Q It's draft two, it's in tab 2.

Q Again, in the middle of the page, it's the same paragraph, beginning "there were strong prohibitions"?
A Yes.
original one open as well, draft one open as well, you'll see it's the same paragraph in the middle of the page? All right. Sorry, doctor, I want to --

Q Now, that partial reference is removed?
A That's because I had intended to put in the Boas narrative about the first salmon ceremonies that were conducted at the Kitselas Canyon. I decided that because Kitselas Canyon is somewhat out of the range of the Coast Tsimshian evidence we're looking at, that I didn't insert that. So that was a reference to initially put in the Boas reference, or at least that was --
Q But in particular, we don't, you haven't provided a page number for Boas to support the paragraph?
A Oh, on the quote that actually is here in the, starting "there were strong prohibitions"? Okay, and then -- I don't know, did I in the final version?
Q Well, we can turn to that, doctor. That's at page 15 in the cerlox, in the upper part of the page.
A Oh, yes.
Q Again, the same paragraph, "there were strong prohibitions", again without a reference. So that

A All right.
Q -- deletion, you deleted --
A The reference.
Q -- the reference to Boas 1916, and that's because you didn't actually go back and reread it and find the support for that paragraph, did you?
A I decided to eliminate it, so I didn't go back and look for it.
Q But you didn't eliminate the paragraph?
A No, because I wrote the paragraph, not Boas. But the reference here --
Q But the source for the paragraph is Boas, is it not?

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

1 A No, that was a reminder that there was another
element that I thought could be relevant to that, which was his detailed description of the first salmon ceremonies.
Q But doctor, your statement in this paragraph where they were looking at draft one, draft two, or the final version, it's a conclusion, isn't it?
A The reference is not relevant, in my final decision, to the paragraph that I wrote and put that at the end of the paragraph. That was a notation; as I say, I do it in the drafts as I go through. That's a notation that I would consider putting in the quote from Boas, and then decided that I didn't particularly think it fit, so I eliminated it in the final version.
Q But doctor, in this paragraph you are making, making a statement that is a conclusion; you're saying there were strong prohibitions?
A Yes.
Q But you're not giving any source for that information or for the basis for that. You're not giving any factual evidence and you're not giving any, or you are not giving other authors in support?
A That's based on multiple, multiple references to honouring the fish.
Q It's based on your memory when you wrote it?
A It's based on 40 years of field work and interviewing with native people.
Q I would ask you to turn to tab 1, which is the first draft, Exhibit 17, at page 13, in the middle, the first paragraph under the heading "The World of the Intertidal Zone"?
A Yes.
Q Begins with the words "The intertidal zone"?
A Uh-huh.
Q And again, at the end of that paragraph there's a reference to Beynon, with a gap?
A Correct.
Q And then if you turn, keep that page open, but turn to tab 2 for you, and draft two of Exhibit 19, at page 18. Actually, page 17 is, the heading's changed slightly to the "Cosmology of the Intertidal Zone" but the paragraph is again the same, "The intertidal zone had a supernatural dimension", continues over on to the second page, but this time the reference to Beynon is gone.

That paragraph also was written from memory, wasn't it?
A That, probably that change was made when I came back to Vancouver, and I do know now I was here in Vancouver. So that was probably because I did not have the Beynon text; it was in the library at the Canadian Museum of Civilization, which I did not have access to, as I completed the draft here, completed the report.
Q Yes, doctor, but in particular, when it was first written, you wrote it from memory?
A It's a synthesis in which I was referring to work that I had seen of Beynon's, yes.
Q But not seen in the context of writing this report, seen maybe much earlier?
A Well, no. I read through a lot of that material at the Canadian Museum of Civilization in preparation for this, so.
Q But you don't have a page number for it, do you?
A Right. I didn't, I didn't make a note of it at the time. It was recalling that there was something relevant, and then the subsequent decision, which is a common one in writing any material, as you do a second evaluation, is this worth the effort of looking it up, and in particular since this was no longer available to me, because it was in Ottawa and I was here; in Gatineau, I guess I should be more precise.
Q And then we see the same paragraph in the final report in the cerlox binder, Exhibit 7, page 19. Again, that's the paragraph beginning "The intertidal zone", and again it doesn't have a reference?
A Yes.
Q All right. Now then, I'd ask you to turn to the
first draft, that's tab 1, Exhibit 17, at page 18. In the middle, the first sentence, the paragraph begins with the sentence, "The remarkable preservation"?
A Uh-huh.
Q Do you see at the end there it goes "as the fort of the warrior Aksk"?
A Yes.
Q And then again, it's got reference?
A Uh-huh.
Q In this case, no name and a space, but the space for addition was --

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

A That was Beynon again.
Q In this case, again you were writing that sentence from memory?
A Yes, from --
Q All right. Let's turn to tab 2, draft, that's the second draft, Exhibit 19, and page 21 . And the paragraph there is -- well, it's page 21 in the middle.
A The third paragraph, middle of the third paragraph, citing the Adoak as the fort of the warrior Aksk.
Q Forgive me, I'm just missing this right now. Yes, it's just reworded, the opening clause is an additional clause, but in essence, the first sentence is there after the opening clause?
A Yes.
Q All right. And again though, we see that the brackets with "ref" in it have been deleted?
A Because I do believe that there are other references in the report earlier on that do refer to some of the ethnohistoric material from Warrior Aksk. I know I mentioned it in the report numerous times, and I didn't repeat the reference each time. I'd have to look through it and see where I felt

I'd covered that off by providing a reference.
Q Perhaps we could come back to that. Now, I'd ask you to turn to the first draft, that's Exhibit 17, at page 21. This is in the lower part of the paragraph, the lower part of the page, it's the paragraph beginning "Shellfish formed". This is tab -- sorry, doctor, it's not the cerlox, it's tab 1 in the binder there.
A Okay. It would help me if I just know which tab it is.
Q Sure.
A On page 21?
Q On page 21.
A Yes, okay. And the paragraph, "Shellfish", yes.
Q It's on the lower part of the page, and at the bottom part of the paragraph the only reference in the paragraph is, it says "Cybulski ref"?
A Right.
Q Again, you wrote this paragraph from memory at the time?
A Yes. I had met with Cybulski while I was in Ottawa in that period, over my birthday period, so I had reviewed the information that he had with him at that time. So I was writing it from a week-old
source to be able to give it? You were still -you wrote, you wrote this paragraph from memory?
A Well, I -- yes, from memory that I had read it the week before at the museum reading room.
Q But you didn't have a page number?
A Right. I didn't make a reference to the page number at that time. I looked it up, I believe, when it was time to complete the reference, the document. But that's a typical way that I write, you know; if I have a reference, then I will ensure that it's looked up in the page, checked as the final report goes in for publication or whatever.
Q I'm sorry, doctor, did I just ask you about the version of this paragraph in draft two?
A I don't recall.
Q Didn't we just look at it? No, I don't think we did. All right, so let's also now look to draft two.
A So that's tab 2?
Q That's tab 2 for you, it's Exhibit 19?
A Yes.
Q At page 24. And you see the same paragraph there in the upper part of the page, "Shellfish formed"?
A Uh-huh.
Q And now at the bottom, the "Cybulski ref" is deleted?
A Yes.
Q That's because you hadn't read it in the interim, had you?
A I had mentioned that about the growth of the arrest lines earlier; I mentioned it twice in the report. So I'd have to check and see whether it was there for the first time, and it could have, of course, been repeated here, but twice I said I know from memory, again, that $I$ referred twice to the fact that there were not dramatic growth arrest lines
showing starvation in the population of the Prince Rupert Harbour, so.
Q So that's the only part of the paragraph that you expected Cybulski to be supportful?
A That's the specific sentence that I was referring to.
Q So the rest of that paragraph was written from memory, without you indicating a potential reference in draft one or draft two, so far that we have looked at?
A Yes. That's mostly from, for instance, the emergency food and so on were, was from people from the Tsimshian community who had told me that at various times. So that is from my research memories directly. So there were, in my view, no citable references; it's simply my --
Q Do you have notes of those communications?
A No. Any notes that I have are in the archives of the Canadian Museum of Civilization, so when I did -- my field notebooks are all there, I don't have copies of them. They can be checked there, of course.
Q So in particular, this paragraph, the whole of this paragraph was written from memory?
A Not the whole, because -- well, I mean, in this -I still feel that there is reference to Cybulski, one of his papers, it's in the bibliography, based on the growth arrest lines. That's the only, the only reference in that paragraph to the work of Cybulski, who is a physical anthropologist. The rest all has to do with other topics.
Q But you took out the word "Cybulski" with "ref", parentheses around it, because you didn't read it?
A Primarily because I thought I had referenced it earlier on.
Q Now, I'll ask you to turn to the cerlox binder version, that's Exhibit 7, the final report.
A Yes.
Q Page 25, at the bottom. Again, you see the same paragraph, beginning "Shellfish formed"?
A Right.
Q And again, it doesn't have any reference to Cybulski there, or indeed, any other reference in there?
A Correct.

Q I'd ask you to turn to the first draft, which is tab 1, Exhibit 17, at page 27. It's the, well,

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
it's a partial paragraph, the beginning of the paragraph starts at the bottom of page 26 . But in terms of page 27 it begins midsentence with "they traded with the Tsimshian"; do you see that? And at the end of that it's got, at the end of that paragraph it's got, in parentheses, "Martindale", but no year and no page number?
A Right.
Q Again, at least for the parts of this that are written on this page, on page 27, I know you do refer to Garfield in there, but again you don't give a specific reference to Garfield in that sentence above there, in the second last sentence of that paragraph?
A Yes. It's the typical pattern I have in writing when I -- I mean, I reread Garfield, I read all the Martindale papers, and I wrote the report with the intention then of going back to ensure that I had whatever appropriate reference there was. You see, I didn't write it from written notes, if that is the point.
Q Yes. And I take it you wrote it from memory, when you wrote it?
A Right, recent memory.
Q And if we turn to draft two, page 31, in the middle of the page, okay, it's, the paragraph begins "Many Tsimshian", but the paragraph has now been broken up. So the part we're now looking at is now in a separate paragraph that begins "The Haida from the large villages". And so the paragraph in draft one ended with "missing from those islands". That's the end of this paragraph, "missing from those islands", just below the half-way line?

A Yes.
Q Page 31. This again, the partial reference to Martindale has been deleted. Again, that's because you didn't read Martindale and write it from what's specifically in the --
A No, I never write directly from the research materials that I'm writing. I digest the ideas and then I write them; then I cross-check them to see if my memory is exactly what they said in the reference, and then I cite the reference. That's my modus operandi.
Q But you didn't do that in this case, not by the -not by the time of draft two, you don't cite the reference?

A I eliminate it by the time draft two came, for possible, several reasons, one being I was no longer there with the research material at the CMC, the Canadian Museum of Civilization.
Q So you couldn't, you weren't able to complete your normal process of checking again later --
A And that's why -- so I dropped them.
Q Pardon?
A So I dropped them out of the final text.
Q But you didn't drop out the text, you just dropped out the reference?
A Because the text was more than just that one reference point. It was, these are some general comments, as you said, of which I was looking to one person to add confirming references, but it wasn't entirely on the basis of, for example, in the part about goat wool and horns used in ceremonial objects, that was not dependent on Martindale, so that eliminated Martindale, because I didn't have the references. They were in the journals in the Canadian Museum of Civilization.

Q And again, you wrote it from memory and don't refer to those either?
A The way in which I have said is, the whole of my writings throughout my career are based on reading the text, synthesizing the information, writing a draft, and cross-checking it with the references.
Q And in this case you weren't able to do that?
A So I dropped it from the text because it wasn't critical.
Q But kept the text?
A Because the text was based on many other experiences that I did not --
Q But you don't cite them in the paragraph, is that correct?
A That's just, you know, true of every paragraph in the book.
Q So doctor, isn't it fair to say that what you're doing in many parts of this report is making concluding statements based on memory?
A Based on research.
Q But also based on your memory of the research?
THE COURT: Gentlemen, please don't talk over each other, please don't interrupt each other. Just take your time. I'm not going to --
THE WITNESS: All right.
MR. RUSSELL:

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

Q So doctor, isn't it true that you're, in many parts of this report, where you don't make references, where there's no specific references, and there are statements made that conclude similar, there are conclusive, conclusive in nature, that what you're doing is you're making those statements based on your memory, as to a lifetime of reading, what have you, but you don't give an opportunity to the reader of the report to go in there and read the
basis upon which you make the conclusive statement? Isn't that fair to say that's what you're doing in this report?
A No, because I believe all of the research that I'm basing this on is cited in the bibliography.
Q But sir, you don't refer to it in the paragraphs. And so what you're -- and you're also, you're indicating that much of this is written, well, the paragraphs we've looked at so far are written from memory, and you didn't go back and cross-reference the ones we've been looking at, cross-check?
A I'm assuming that counsel has read the references that I put in there. So there is an opportunity for counsel to review the material on which I have based the conclusions in the reports.
Q But doctor, your report is for the court as a whole, and are you not, when you don't provide the references, are you not acting yourself as the person who's saying this is the way it is, this is the conclusive opinion, rather than saying I have expertise, this is what my opinion is and these are my reasons, and referring to references, et cetera, et cetera? You're not doing that in this report, are you, by and large?
A What I'm doing is making the, all the references, Martindale, or about half a dozen Martindale references in here which are available to anyone who has the document and has the bibliography. So they are accessible from my point of view, and I think that of other scholars.
Q Yes, but your report in particular doesn't refer to them, certainly in the paragraphs we've looked at today, doesn't refer to them specifically and say this is where my basis for this opinion is; you don't do that, do you, not in those paragraphs?
A Well, I'm waiting till you're finished. But what I'm saying is that all of the material that is normally judged by scholars to be required for the
basis of research conclusions and to support the process of synthesis in science is included in the text and in the bibliography, and I apologize if I haven't done the spoon-feeding to the extent that perhaps I could have.
Q But it's more than that, isn't it, doctor? It's that you haven't actually cross-checked the references; you haven't gone back and done the third step in the methodology that you spoke of earlier?
A For those that I have included in the final draft, yes, I have.
Q The ones with specific page numbers, references, for instance?
A The ones I chose to retain in the final report, that's the whole purpose of draft, is that you change your perspective as you finalize the draft, and I have eliminated versions that I did consider unnecessary but kept the necessary one.
Q So for those paragraphs that don't have references but have conclusive opinions of yours in them, in the final report, are those the ones where you didn't reread or read and cross-check the references to support it?
A No, I reread all of the documents that are in the bibliography.
Q Before you finalized the report?
A Yes. In the period of the work that I did, I reread all of those reports.
Q But you didn't make notes, working notes about all of those reports, did you?
A But I had, I reread them, so I had already read them previously; and in rereading, it was reinforcing either what I knew or what I had to learn, and the process is that synthesis of all of the documents. I read many items that I didn't refer to because I didn't feel were relevant at all, but for the ones that you have been citing this morning, I had read those, I had put them in the bibliography, and they are available to anyone who wishes to cross-check the basis of that evidence.
Q So I'd ask you to also, for this last one, I'll ask
you to turn to the cerlox binder which is the final report, page 32, the lower portion of the page. And again, it's this paragraph now beginning with the words "The Haida from the large villages", and

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
again, at the bottom it doesn't have the reference to Martindale?
A Yes.
Q So again, that paragraph was written from memory, correct?
A It is part of the synthesis that I was stating here without detailed references, primarily because syntheses require many different sources, and you'd have nothing but references in the text if you did it that way. Some choose to do it that way; that's not the way I have traditionally written.
Q I'd ask you to turn to the second draft, page 31, so that's tab 2; the second paragraph.
A Thirty-one; I'm sorry, page 31.
Q Yes, so it's tab 2, draft two, Exhibit 19, page 31. It's the second paragraph, the top part of the paragraph, I believe it is. So the paragraph begins "Many Tsimshian also spoke", and at the end of the second sentence there's a reference to Martindale again?
A Yes.
Q Again, without the year or page number?
A Correct.
Q So that, those two sentences were written from memory?
A In fact, I had read them. I do not make detailed notes on every point that I read in every paper.
Q Now, if we turn to the final, that's in the cerlox binder, page 32. In the second paragraph you see the same, or essentially the same paragraph, beginning "Many Tsimshian", and then after the
second sentence, ending "Prince of Wales Island, Alaska", the reference, a partial reference to Martindale has now been deleted. Do you see that?
A Yes; again, because I was back in Vancouver and I didn't have reference to fill that in, so I eliminated it.
Q All right. Now then, this is -- I'd ask you to turn to tab 1, draft one, Exhibit 17, page 15, in the middle the paragraph beginning "Quite distinctive from the above"?
A Uh-huh.
Q The third sentence reads:
"A shamanic 'First Salmon Ceremony' of this type was described in detail by Boas,"

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

And there it says "1916:" with a space?
A Yes, that's where this was relevant --
Q That's where you meant to add a page number when you read it, right?
A Right.
Q And then we turn to the final, which is in the cerlox binder, page 20; no, that's draft one, so forgive me. Then we turn to draft two, page 19, in the upper part of the page. The opening part of the paragraph is worded differently. It now reads, "Another category of petroglyphs occur", But then we see, "on large boulders and bedrock faces at the entrance to the harbour around Metlakatla Pass"; that's the same, remainder of the first sentence. And the second sentence is the same, and then the third sentence is the same, with one difference: now it says "Boas 1916", but the colon's been removed. A simple point, perhaps, but it has been removed?

A It certainly has.
Q Yes. And that again was because you didn't go back and read that and cross-check it for the purposes of this?
A Right. I certainly do not reread all the literature between, or even notes, between drafts, unless it's relevant.
Q And then in the final report, it's the same as the draft two, so there's the cerlox, page 20, in the middle of the page. You see it there, the paragraph begins "Another category"?
A Right.
Q And again, it's the same at the end of the third sentence?
A Yes. That should have been filled in, I regret that.
Q Although it looks like it's been combined into another sentence, that still is the same, in any event, at that point?
A Yes.
Q Now, I would ask you to turn to, and I've also come to the end of -- just a few more of these. I ask you to turn to draft one, page 20, at the bottom. This is the paragraph that begins "Large tidal fish traps", and the second sentence begins "Wooden fish weirs that have been maintained". I'll read it out:

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
" -- that have been maintained over thousands of years in the same spot have been reported in Gitanyao territory on the Kitwankul River and lake that date to 2,000 years ago."

Do you see that? And then there's a reference to Martindale 200, which I take it you were going to
add a year, like 2001 --
A Yeah, right. I did have the year.
Q And perhaps also a page number as well?
A And I was questioning at that time whether Martindale was the proper reference, or whether it was Prince.
Q All right. Well, then let's turn to draft two, and I think there you'll see there is a reference to Prince there. So that's tab 2, Exhibit 19, page 23. The lower part of the page, it's the paragraph that begins "Large tidal fish traps"?
A Yes.
Q And the second sentence, and now we see at the end of the second sentence -- well, I'm going to read it all out, the second sentence:
"Wooden fish weirs that have been maintained over thousands of years in the same spot -- "

That part of the sentence is the same as before, as in draft one:
" -- have been reported in Gitanyao territory on the Kitwankul river and lake -- "

That part is also the same:
"That document intensive harvesting of salmon from 770 BP to the present."
"BP" means before the present?
A Yes.
Q So the last part of the sentence has changed from the draft one. It no longer refers to that date, to 2,000 years ago in draft one, in the last part of the sentence; it's now talking about the time period 770 before present to the present. And also what's changed is the reference, now you have a complete reference to Prince, doctor. And if we can turn also to the final report --

A Sorry, may I not answer that, or you're going on to something else? I'm not --
Q No, I'm staying with this, if I may. I was just going to point out, the final is the same.
A So I will come back to my rebuttal --
Q Yes.
A I will make a note of that, if I might.
Q I'm just going to show you the final.
A Okay.
Q The final, page 25, in the upper part of the page, it now begins, it's been broken down into two sentences:
"Wooden fish weirs have been dated on freshwater lakes and rivers in the interior."

The first of the breakdown is:
"Some have been maintained over thousands of years in the same spot, for example on the Kitwankul River and Lake."

And then the last sentence:
"Intensive harvesting of salmon from 770 BP to the present has been documented by recent archaeology."

In referring to Prince. So doctor, that second last, that second sentence in that paragraph, that was initially written from memory in the first draft, correct?
A Yes, it was, but not just on Prince. There were, you know, other radiocarbon dates that have been set on the weirs, but I did then, when I referred it originally to Martindale, realized that it was actually Prince, as I mentioned earlier, and I went back to Prince to verify the carbon dates, and your -- from a technical point of view I should have also referenced other carbon dates that related earlier to fish weir stakes that had been
dated, but my specific reference was to page 83 of the article by Prince in 2005, citing the radiocarbon date of 770 BP .
Q So there's no, you don't cite any support here for that second sentence of the paragraph in the final report?

| 1 | A | Or for the first sentence. |
| :---: | :---: | :---: |
| 2 | Q | The first -- the second sentence, "Some" |
| 3 | A | Having some -- |
| 4 | Q | -- "have been maintained over thousands of years in |
| 5 |  | the same spot"? |
| 6 | A | Yes. |
| 7 | Q | We'll just turn to Exhibit 10, that's the working |
| 8 |  | notes, at page 22. At the bottom of the page it |
| 9 |  | says "note due" -- is that the word "outlined"? |
| 10 | A | Yes. |
| 11 | Q | "From above and sent to Matt". That's a reference to plaintiffs' counsel? |
| 13 | A | Yes. |
| $\begin{aligned} & 14 \\ & 15 \end{aligned}$ | Q | And then below that it says "what kind of outline does he want"; is that right? |
| 16 | A | Right. |
| 17 | Q | "Some areas sketched in. He can indicate if he wants more on that topic"; is that what it says? |
| 19 | A | That's what it says. |
| 20 | Q | All right. And I don't, I think the next page is not related, is that correct? |
| 22 | A | These are not necessarily notes that are following |
| 23 |  | the same logic, they're simply notes that I put |
| 24 |  | down, so. Yes, some of the other elements don't |
| 25 |  | necessarily follow along from the items you've |
| 26 |  | read, but that is, in a sense, a series of notes in |
| 27 |  | that bottom of the page. |
| 28 | Q | So the first draft, which is tab 1 or Exhibit 17, |
| 29 |  | that's not an outline, is it? It's a -- |

A It's a progressive draft.
Q Right. Did you provide an outline at all?
A No.
Q So this was the first document that you provided to plaintiffs' counsel?
A Right. Right.
Q That's draft one, which is Exhibit 17?
A (WITNESS NODS HEAD AFFIRMATIVELY)
Q Is that right?
A Yes.
Q Now, if we look at the end of draft one, turn to page 28 and over on to page 29. You have a title, "Summary", but it essentially is a quote from Jay Miller; is that correct?
A That was to be inserted, yes, which I did.
Q And that, but the next paragraph below is part of the quote?
A The Coupland? No, it has nothing to do with the

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
reference to Jay Miller. That was just to remind me that I had read a statement by Jay Miller that I thought summarized the situation very nicely, and would be a good introduction to that summary section. So that was a note to myself, that's what it means, note that I would note to insert that.
Q All right.
A In a progressive draft.
Q Well, if we look at the second draft, Exhibit 19, page 33 at the bottom, and the top of page 34?
A Sorry, that's tab 2, is it not?
Q Yes, it would be tab 2.
A Correct. I've not filled in the Jay Miller either, in this one either. It then skips to Coupland. With the indentation it probably looks --
Q Well, this indentation, you've set it up as being a quote from Jay Miller?

A Oh, I'm sorry, I'm sorry, you're right there. That is set up as a quote. Jay Miller was quoting Coupland in his, in -- Miller's '97 was quoting Coupland from the 1988 article. I thought it was a good quote, so I redeployed it in here.
Q All right. And again on the next page, page 34 of the second draft, this is a continuation of the quote from Jay Miller, is that right?
A No, of Coupland, Tsimshian Council. Let me just read this now. That's all the same quote from Coupland, 1988.
Q From Miller?
A It's quoted in Miller, but it's the words of Coupland.
Q I see. So in fact, the second paragraph, the second paragraph is --
A Part of the quote.
Q The paragraph at the top of page 34 is in fact a quotation from Coupland 1988 that was cited by Miller?
A Yes. It's indented, and it's the same quotation that starts on the previous page of Coupland, cited by Miller.
Q All right. In any event, it's all part of cites either by Miller or Coupland, those last two paragraphs?
A Correct.
Q And what we see also though is that comparing draft one and draft two, there's three new paragraphs in there, in the summary. If we go back again to

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
draft one, tab 1, there's nothing above the Jay Miller quote under "Summary"?
A Yes, that's when I was finalizing the report, I decided to include it.
Q Whereas in draft two there are three new

| 6 |  | paragraphs? |
| :---: | :---: | :---: |
| 7 | A | In the summary? |
| 8 | Q | Yes, above the Jay Miller -- |
| 9 | A | Yes. |
| 10 | Q | -- quotes? |
| 11 | A | Right, right. |
| 12 | Q | Okay. |
| 13 | A | I felt the summary was rather abrupt, and I added |
| 14 |  | in. |
| 15 | Q | So when you sent draft one in, in April, April |
| 16 |  | 28th, 2006, you didn't have -- the only summary you |
| 17 |  | had was this quote from Jay Miller; you didn't have |
| 18 |  | any other summary pulling together the direction -- |
| 19 | A | I always think through the summary as the last |
| 20 |  | statement I would make, but I've been formulating |
| 21 |  | it in my head to include all of the conclusions and |
| 22 |  | syntheses that I've done, so I very often write |
| 23 |  | that at the very last minute, and that's what |
| 24 |  | concludes the report. Again, it's part of my modus |
| 25 |  | operandi of doing research. |
| 26 | Q | But you also provided the draft without the summary |
| 27 |  | to plaintiffs' counsel? |
| 28 | A | Yes. |
| 29 | Q | Did you, did you receive any comments on how to |
| 30 |  | summarize your report? |
| 31 | A | No. |
| 32 | Q | Drafts one and two do not have an introduction; if |
| 33 |  | you just turn quickly to draft one, it's at tab 1. |
| 34 |  | So tab 1, and the first heading under the table of |
| 35 |  | contents is "Archaeological Research"? |
| 36 | A | Yes. |
| 37 | Q | And draft two, Exhibit 19, tab 2 for you, doctor, |
| 38 |  | the first heading again under the table of contents |
| 39 |  | is "Archaeological Research"? |
| 40 | A | Uh-huh. |
| 41 | Q | The final report, page 2, is where the body of the |
| 42 |  | text begins after the table of contents and |
| 43 |  | reference to the illustrations. It has a four |
| 44 |  | paragraph introduction? |
| 45 | A | Yes. That's again, the habit I normally have is to |
| 46 |  | write the intro to set the scene for the study and |
| 47 |  | to write the conclusions as the last thing I do |

before finding, handing in a final report, and to write four paragraphs takes half an hour at that stage.
Q So you wrote these four paragraphs in half an hour on July 15, 2006?
A Yes. I often would write 15 pages in, you know, one sitting, so four paragraphs is really nothing.
Q And did you receive any comments on what to say in the introduction to your report --
A No.
Q -- before you wrote it. I would ask you to turn to draft one, tab 1, Exhibit 17, at page 6. All right, it's in the paragraph beginning "For a short period in late May"?
A Yes.
Q And it's the sentence that begins about half-way through the paragraph, "herring roe was considered a prime delicacy"?
A Uh-huh.
Q So I will read it out:
"Herring roe was considered a prime delicacy at feasts and were a significant item of trade to the interior."

And there's a reference to MacDonald, Coupland, Archer, and then it says "108-plate"?
A That's the Historical Atlas of Canada, which has lists of the trade goods that went on the various trails. So that's Volume 1, Historical Atlas of Canada, which I do believe is in the bibliography.
Q So if we turn to draft two, I think you specify the page numbers, in fact, in draft two. So it's draft two, tab 2, Exhibit 19, page 10, in the middle. And you've added a clause, so I will read it out this time. It's, again, it's the sentence, the paragraph in the upper part of the page beginning "For a short period in late May", the sentence most of the way through the paragraph beginning "herring
roe":
"Herring roe was considered a prime delicacy at feasts and were a significant item of trade to the interior."

And then you've added in parentheses:

40
George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
"For a full list of trade goods see MacDonald, Coupland, Archer, 1987:Pp32-33."

A That's because I was trying to fill in the reference to the fact that it was a plate, and not a series of linear texts, but in the plate is incorporated the lists of trade goods.
Q And those aren't -- so pages 32 and 33 are just the page numbers where the plate is?
A Yes.
Q We're talking about the same thing?
A Yes, okay.
Q And that's where, so that's where you're saying there is a full list of trade goods?
A It was full when we did it at that time. I had looked it over later and realized that we had left out some of the more common species.
Q One in particular, doctor, you hadn't, herring roe was not on that list, was it?
A Right. That's what I say, I did realize that when I had done the atlas, I was focussed on the interior trade trails, and I was asked by Cole Harris, who was the editor, to specify some of the details of what was carried on in trade. I made up part of the list, it was then transferred to Cole, and he had both Archer and Coupland go through it. That's why it's a tri-author plate, because by that
time I had moved from Vancouver, when I had made the original agreement to work on the plate, back to Ottawa to build the new Canadian Museum of Civilization. So I suddenly was, I no longer had time available to complete the research, and it was turned over to two of my students, Archer and Coupland, working with Cole Harris, to complete the list. I realized, in looking over these again, that they missed some of the species like salmon, like herring, and so on, that should have been in the list, and so feel that the list is not complete, in answer to your question.
Q But when you wrote draft two, you still considered it a full list of trade goods, didn't you?
A Yes. I should have said an extensive list, not a definitive list.
Q And so I'm producing to you, sir, a photocopy of what I believe is pages 32 and 33 of the atlas, the pages that you're referring to?
A Uh-huh.

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

Q Now, your sentence is talking about herring roe as a significant item of trade to the interior, so we're talking trade to the interior?
A Uh-huh.
Q And on the second page of this, pages 32 and 33 , it refers to trade goods and trade routes, the Skeena River, and in particular, upriver trade; that will be trade to the interior?
A Yes.
Q Food, and then there's no mention there of herring roe, correct?
A That's exactly what I was referring to, that it is an incomplete list, and I recognized that when I looked over it again for this study.
Q If we turn to the final report at page 10 , at the
bottom it still states the same sentence:
"Herring roe was considered a prime delicacy at feasts and was a significant item of trade to the interior."

And then in parentheses:
"For a list of additional trade goods see MacDonald, Coupland and Archer."

A What, of course, I'm saying is that, for a list of traditional trade goods.
Q Right, it does change --
A Over and above what the herring -- because I realize the herring wasn't there, so that's why I put it in this version, final version.
Q So that was --
A Or penultimate.
Q That was a change that happened on July the 15 th?
A I checked that kind of detail as I go through to make a final submission, and that is undoubtedly the time that I would make the change.
Q Did someone prompt you to make that change?
A No. No, I just realized that the list had not really had my participation in the finalizing of that list, and that that was something that needed to go on record. I feel the same way, there's not much made in the list about the trade in salmon, because it was so widespread that it got overlooked and was just so ubiquitous that it wasn't referenced.

42
George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

1 Q So doctor, you don't give a reference then for the

A That was based on many, many reports from Gitksan people who -- I worked considerably with the Gitksan, and their comment directly to me, that herring roe was one of the key features of the feast, and I've sat through numerous feasts in which I witnessed the ecstacy that was manifested by eating herring roe, and got to savour that wonderful pop when you're chewing them that they have. So I always head for them first at the feasts. I had some last weekend.
Q So if we go back to draft one, tab 1, Exhibit 17, page 25.
THE COURT: I see the time. Perhaps we'll take the lunch adjournment.
THE REGISTRAR: Order in court. Court is adjourned until two p.m.
(PROCEEDINGS ADJOURNED AT 12:30 P.M.)
(PROCEEDINGS RECONVENED AT 2:05 P.M.)

THE REGISTRAR: Order in court.
MR. RUSSELL:
Q So, doctor, turning to draft one, which is tab 1, Exhibit 17, at page 25 ?
A Uh-huh.
Q And I want you to compare that with the two page -I'm not sure, was this made an exhibit, the two pages?
THE COURT: Not yet. Did you wish it to be?
MR. RUSSELL: Yes, please.
THE COURT: All right.
MR. RUSSELL: The next exhibit, please.
THE COURT: That's Exhibit 20?
THE REGISTRAR: Yes, my lady.
EXHIBIT 20: Excerpts from the Historical Atlas of Canada

MR. RUSSELL:
Q So Exhibit 20, doctor, is the excerpt, photocopy of an excerpt from the atlas?
A Yes.
Q That's pages 32 and 33 that you referred to in
draft two in the final report?
A Right.
Q So on the second page of Exhibit 20 is the trade goods, the table of trade goods and trade routes, and for the Skeena River, upriver trade, food items?
A Yes.
Q That's essentially the same list as on page 25 of draft one for the food items?
A Yes. That was done in around '83, is that approximately -- location B in that -- just to establish when that draft was done, when that publication --
Q I think it's more, it's either '85 or '87. I think it's '87 in your bibliography?
A Yes.
Q Yes. On page 39 of the final report you refer to MacDonald, Coupland and Archer, 1987, the Coast Tsimshian circa 1750 in the Historical Atlas of Canada, pages 32 and 33 ?
A Correct.
Q That's '87.
A I might just point out that was the publication date. I believe the last time I saw the manuscript was '85, and then it went to press, and it was quite some time before they had all the plates ready and it was published.
Q And so just to complete this in terms of the herring roe, the herring roe and the herring spawn is not on this list either, on page 25, that is?
A Yes. I'm sorry to say I can't read even with my glasses on, but I take your word for it that it's not there.
Q Well, let's turn to page 25 of the, of draft one, tab 1.
A Yes.
Q And again, here is the same point essentially as
before, that the herring spawn, herring roe is not on this list on page 25?
A Yes. That was an oversight, and I realized that when I was preparing this report, the final draft of it.
Q Now, also on this same draft one, page 25, there's no reference to -- and you may have mentioned this this morning, but there's no reference to salmon being traded by the Coast Tsimshian up the Skeena in this table on page 25 , is there?

## 44

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

A That's right. Because of the extensive nature of the trade, salmon was, was not singled out as a particular trade item, and what of course should have been done is to say that it was particular varieties prepared in these particular ways that were the trade items.
Q So again, in draft two, page 29, you've added as the second line item now in the same table dried salmon, select varieties; page 29 , draft two?
A Correct. Yes, select varieties.
Q And you don't give any specific reference for that here?
A Yes. You're right, it was essentially from the Barbeau files at the museum, but I don't give a specific reference to actually any of those items in those lists.
Q Now, if we go back to draft one, at the bottom of page 25 and then the top of page 26, you list items that you say the Tsimshian acted as intermediaries for trade goods from the Tlingit and Haida and other groups further south on the coast?
A Correct.
Q And you don't mention salmon in that list, correct?
A Yes. Again, I focussed on exotics like octopus and sea urchin. I --

Q Then on draft two, page 30 , you separate and add an item for Tsimshian items traded to Haida Gwai, just below the middle line?
A Yes.
Q Now then, salmon isn't on that list either, this is draft two?
A There are quite a few items that aren't on the trade to the Haida Gwai, because as I mentioned, when I was doing the maps I was focussing on the interior trade, and I never did do as much work on the trade over to Haida Gwai. But there are other items that are missing in there, like sheep, goat fat and so on, which were important, or that may be under food. But it's not complete, as it should have been. I regret that, but it, it's not a definitive list of what was traded over to Haida Gwai.
Q Now, if we return to Exhibit 20 -- and what I will do, doctor, is $I$ will read out parts of this for you, to assist -- Exhibit 20 being the two page excerpt from the historical atlas?
A Uh-huh.

## 45

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

Q In the map portion of this, there are three places where there is depicted, I believe it's indicated as a trade route with numbers, and those numbers are 18 going to northern Queen Charlotte Islands, 19 going to central Queen Charlotte Islands, and 20 going to central Queen Charlotte Islands from a lower route?
A Yes, on this --
Q All right. So those are the three trade routes that, on this map, that involve the Haida on the Queen Charlotte Islands; is that correct?
A Yes.
Q So then if we turn to the table on the second page,
and this is the part that I will read out, 18, 19 and 20, the table. So for 18 it says "Nass Fisheries/Masset and Skidegate Inlet, Mainland to Queen Charlotte Islands trade", and it lists oolichan grease, goat horn and wool, sheep horn, grizzly bear fur and claws, copper, woven blankets of goat wool; that's going in the direction to Queen Charlotte Islands. And then from 19, which is for Prince Rupert Harbour/Skidegate Inlet, Mainland to Queen Charlotte Islands trade, it lists goat horn and wool, sheep horn, Grizzly bear fur and claws, copper, woven blankets of goat wool. And then for 20, it says "Kitkatla Skidans" it just says same as number 19. So none of those refer to salmon?
A You're right, those are incomplete lists, and they're at least four or five other items that should have been in there. The last one was manufactured items, yes.
Q So these changes adding salmon to the, to the lists in the two places -- well, let's go and look at that in the final, let's look at the final report now.
A And herring.
Q So final report, page 30 -- page 30. Yes, I think we've just looked at that, it shows dried salmon on the, on the list of food items traded inland?
A Correct.
Q So this is the first time, in terms of the drafts, it comes in in the final report only, in the list?
A For both the herring spawn and the salmon.
Q Yes. Well, the herring spawn, I'm not sure if that was earlier, but certainly the salmon, that's where it comes in. All right, that's the first time the

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

A I imagine so; I'm sure you've checked it carefully.
Q Well, if we just go -- I'm sorry, my notes are incorrect in this point, you have to forgive me. Yes, it was added to draft two in this first part of the list, forgive me for that.
A Yes.
Q That's the first time it got in, in that part of the list. And in terms of the second part of the list, where you've added reference to salmon being traded to Haida Gwai, the first time that comes in is in the final report?
A Yes, because in the first report I was just listing them directly off here. And subsequent analysis showed that there were other species being traded, and some of the adaawks referred to those, so that is when I added a number of things, and since then have realized there were other items, particularly on the trade from the mainland to the Queen Charlotte Islands, that are even not in the final report here, but that there is evidence, and I realize it's too late for that now, but it's a progressive list, and there could be considerably more, both manufactured items and food materials, that are traded back and forth.
Q All right. Now then, I'd ask you, doctor, to turn to -- it was made an exhibit this morning. It's the "Introduction to the Perspectives"; Exhibit 18, I believe. All right, do you have it, doctor?
A I have the exhibit.
Q Will you turn to page 10. Looking at the -- we begin with the sentence that begins with the word "as" at the very bottom of page 9. "As part of the project, a much" -- do you see that, doctor:
"As part of the project, a much more extensive picture of prehistoric trade in the area was compiled from ethnohistoric sources, particularly from the work of William Beynon, a Tsimshian scholar of Port Simpson (see Marsden, this volume, for references). His grandfather, Arthur Wellington Clah, born in 1835, not long after initial European-native contact on the coast, was the first literate Tsimshian historian."

A Yes.

Q And then it goes on:
"Based on their data, known trading trails and lists of trade goods were published as Plate 13 in Volume 1 of the Historical Atlas of Canada (MacDonald, Coupland and Archer 1987)."

A Yes.
Q That's the reference to Exhibit 20, the two page excerpt, is it not?
A Yes, it is.
Q So that the list of trade goods here is based on the ethnohistoric sources you refer to here on page 10?
A And archaeological evidence from the Prince Rupert Harbour excavations.
Q You don't say that in this article, do you?
A I'd have to read it again.
Q Well, it reads --
A The article --
Q Okay. Well, I'll let you deal with that, doctor.
A The whole volume is about the prehistory in the archaeology of the Prince Rupert Harbour area, so the artifact material is treated in a number of other articles within that compendium. So I don't, for instance, note that in site A or site B, horn cores of mountain goats were in great abundance, indicating the trade in the transfer of mountain sheep and mountain goats. So that's the kind of evidence, the final analysis, particularly that done by Stewart and Stewart in, I believe in that volume, that details that. So I didn't feel it was necessary to put in all the archaeological evidence. I was referring primarily to the ethnographic, ethnohistoric material, because I
felt that's what archaeologists would feel was particular information that was added to the detailed archaeological reports in the volume.
Q And in particular, in terms of goods traded to the interior of the Skeena, you don't refer to any archaeological evidence here, do you?
A In that particular article, no. There are other publications where I have done that.
Q Now, if we turn to draft two, that's tab 2, Exhibit 19, at page 28. It's page 29, forgive me, I've just got the wrong page number. Again, it's a table. And actually, forgive me, in fact, we need

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
to turn to draft one, page 25 . Now, draft one, in the list of food items traded by the Coast Tsimshian up the Skeena, it doesn't list sea urchins there, correct?
A No, nor abalone, I notice.
Q And then draft two, which we started to look at a moment ago, at page 29, that does list sea urchins, sea urchin, in the food items traded in there?
A Yes.
Q Again, there is no reference for that there?
A Well, there are no references to any of the food items here in that list.
Q But on what do you base adding sea urchin to that list as being traded inland?
A It was, again, my rereading of the Barbeau notes at the CMC that I noted that there was sea urchin.
Q Can you point to that one?
A I could find it for you, if you would like.
Q You don't have a reference or page number or anything at this moment in time?
A No, I don't have reference to any of them. It would be a matter of researching any one of those. The original work was, you know, done 20 years ago.

Q Now then, I would like to ask you to turn to draft two; I'm going to change tack and ask a few questions more generally with regard to trade in the drafts. So I'll ask you to turn to draft two, page 3, paragraph beginning at, partial paragraph beginning at the bottom with the words "Population growth"?
A Right.
Q That's a new paragraph as compared to draft one?
A (WITNESS NODS HEAD AFFIRMATIVELY)
Q If you would, I can show you that it's not there. If we turn to draft one on page 3, the paragraph several paragraphs above, beginning "Many of the students who worked on the NCCP" in draft two on page 3?
A Yes.
Q That is on the bottom, bottom of page 2 of draft one? And then you see at the top of page 3, draft one, is the paragraph beginning "At this point almost two dozen sites have been excavated"?
A Yes.
Q And that is in the lower part of page 3 of draft two, that paragraph?
A Uh-huh.

Q And then there's a change of heading. So these next paragraphs are new?
3 A Where is the change of heading, I'm sorry?
4 Q Well, in draft one there's a new heading, 5 "Historical" -- sorry, "Historical Overview"?
6 A Yes, that was dropped.
7 Q Right, whereas that doesn't happen until the bottom 8 of page 4, and it's been changed to "Ethnographic 9 Overview"?
10 A Right.
11 Q So the point I'm putting to you, doctor, is that
this paragraph beginning "Population growth" is a new paragraph?
A Yes, it looks like it.
Q And in this paragraph, the first sentence, you state, "With clear evidence of expanded trade, amongst other things", in that first sentence? You use the words "With clear evidence of expanded trade"?
A I'm sorry, I'm not -- it's page 3 of draft one?
Q Page 3 of draft two, forgive me, it's at the bottom of draft two, it's a new paragraph beginning "Population growth"?
A Yes.
Q You use the words "With clear evidence of expanded trade" in the second line?
A Yes.
Q Now, you do cite somebody at the end of the paragraph, but if you read the citation which you put into the report at the top of page 4 --
A Uh-huh.
Q -- that doesn't support this matter of expanded trade, does it?
A The part that I quoted there?
Q Yes. It doesn't support the point about expanded trade? It supports other things, but it doesn't support that point?
A It looks like in this draft there's an error that I would guess the machine has made, because it doesn't start with the whole sentence. The quotation starts "Not by the emergence of cultural trades", which is not a quotation that I would consider complete. So it's got truncated, I would suggest, by some misstroke on the computer, so I don't know if the next form --
Q Well, I can't tell you whether or not -- what it does appear, doctor, if I may, is it does appear,
what you've -- it looks to me like the language of the text proper here is ending with the word "defined", "is defined", the words "is defined", and then the part of the quote is to continue on with the sentence?
A Well, then yes, it should have, if that is the case, then have "..." to show that it jumps into a quotation. So it should --
Q Yes. That was the way I read it, in any event.
A All right.
Q Perhaps you could check that this evening, doctor. But in any event, the quote that is here does not support the point in the first sentence of that paragraph --
A May I have a --
Q -- to do with expanded trade?
A -- read this in context?
Q Yes. Actually, in draft two those are separate paragraphs; "population growth" is one paragraph. It looks like they're separate paragraphs, it's hard to tell.
A So they're not, one is not supporting the other? Are you --
Q But in any event, is it true that this cite here, what you've cited here does not support the trade point?
A But may I look at what is in the final?
Q Yes, we're about to do that. And so if we turn to the final, doctor, it's at page 4 at the bottom, and here at least it's clear that it's all in one paragraph?
A Okay. "Population growth" -- "expansion of the" -"middle period" -- "clearly indicate an" -- "but not on the major scale these activities" -"achieve in the late period" -- okay. So I'm saying that the population growth in the middle period is indicated in the cites with evidence of expanded trade, and then in the quotation, about a series of -- I'm reading in the quotation, starting in the middle of the thing:
"But by a complex series of historical events related to westward and southward migrations by interior coastal peoples, this movement of people for which there is evidence in both the
archaeological and oral history records amplified local population growth and resulted

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in sociopolitical changes that culminated in a period of warfare between the Tsimshian and invaders from the north and east. The formation of alliances between various Tsimshian tribes as a result of this invasion created much of what is recognizable as ethnohistoric Tsimshian culture."

So the connection I'm trying to make is the first part about population growth and expansion in the middle period is clearly indicating the sites with evidence of expanded trade. So I think the point you're making is that there's no reference to expanded trade in the citation --
Q That's correct.
A -- that I've just read through.
Q That's correct, isn't it, doctor?
A Yes.
Q So you've added that statement about extensive trade here to draft two, and also to the final, as we've just seen, the final report, without a specific reference, correct?
A Yes, it would appear so.
Q I would ask you to turn to draft two, page 7. It's the paragraph beginning "The high ranking chiefs", and the sentence in the middle of that, which says, begins "Sometime", it's the second sentence:
"Sometime during the millennium, before contact with Europeans, the ceremonial regalia of the Tsimshian chiefs was adopted by the Haida and Tlingit as the quintessential attire for trading partners in the extensive system of
intertribal trade that embraced all of the communities and their resources throughout the north coast zone."

A Yes.
Q It's that sentence beginning "Sometime" and ending "north coast zone". Now, if we look at draft one, this whole paragraph -- in fact, it's the whole paragraph, I submit to you, doctor, is not, is a whole new paragraph; it's not in draft form. So if we turn to draft one, this is under -- well, while we're still at draft two, it's under the heading "Rank and Class" on page 6?
A Uh-huh.

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Q And above a heading "Slaves" --
A Uh-huh.
Q -- on page 7. And what we see when we turn to draft one is that there are no such headings in draft one. So they've been added, and in fact, the paragraphs have been added to?
A Uh-huh.
Q Is that your understanding?
A Yes. That was, as I read through it on the computer, I revised it as I went to give it more consistency.
Q So in particular, if we look at page 7, again at draft two, it's that sentence that I read out that talks about extensive system of intertribal trade, you don't give any reference for that there, do you?
A No, I don't give any reference there. I'm just wondering -- basically I guess the point is that I'm making a conclusion that I came to as I was finishing the report, that in fact, all of the evidence that there is showing that every element
of the Tsimshian chief's regalia originated amongst the Tsimshian, that is pretty recent realization on my part, that they -- like the frontlets, the blankets, the leggings, the woven aprons, the rattles and so on, were all part of, they all relate to stories of origins of the Nass and Skeena rivers, and then they spread north to the Tlingit and over to the Queen Charlotte Islands. So there really isn't an authority other than myself to talk about the development of the regalia. I'm not aware that anyone else has come to that conclusion, that the three north coast groups that shared the common set of regalia rather religiously, it had to originate somewhere, and I believe that it came together from disparate parts of Tsimshian territory into a badge of office in the sense, into almost like the robes of the masons, as a rank and implication that these were the trading chiefs, and it gave them a commonality which set the basis for trade.
Q Again, I'd ask you to turn to draft two, page 25, in the middle, the middle paragraph there, paragraph beginning "This partial list of exotic trade items", and --
A Yes.
Q I'm going to read out the last sentence:

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"Using advanced preservation techniques, the fish runs over two large rivers in the coast and between were processed into exchange commodities that attracted trade exchange for hundreds of miles around the Prince Rupert Harbour."
"Attracted trade exchange for hundreds of miles";
there's no reference there for that?
A That was primarily, of course, the Nass River, and I have, I know, in the report, talked about how the Nass River formed a natural hub or area where people from all over, surrounding tribes, came together, because the fish runs were so rich that no-one could exploit them. So in a sense, they each had fishing territories. So I probably should have limited that statement to the Nass River as being where that occurred, and of course, the Coast Tsimshian had the major sites on the lower Nass River.
Q And just to complete the point on that in terms of the change from draft one, doctor, if we turn to draft one on page 22, it's in the upper part of the page, the paragraph beginning "This partial list of exotic trade items", that sentence is not there in draft one, so that sentence was added to draft two?
A There were many, many sentences as I went through, felt that it hadn't quite captured the meaning, so I would add a sentence.
Q And that paragraph with the added sentence is in the final report, page 26, at the bottom, and over on to the top of page 27 ?
A Yes.
Q Now, I would ask you to turn to draft one, tab 1 in your book, Exhibit 17, page 15. I'm sorry, it's --
A You already covered that.
Q Is it page 15 or page 16 in your -- one of my copies, unfortunately, my lady, I've given, has the wrong page numbers on it, and so I think I've ended up with one with the wrong page numbers in front of me, so. But in the version that you have, doctor, does it have at the bottom of page 16 the first, the last whole paragraph beginning "The Haida who frequently raided"?
A Yes.
Q That's page 16, all right.

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A So that's in the first draft? Q This is in draft one, yes.
A Correct.
Q So I will just read it out:
"The Haida, who frequently raided the Tsimshian villages of the lower Skeena, were very conscious of these supernatural beings who controlled water traffic in their areas."

And it goes on from there. Now then, if we turn to draft two, that paragraph has been deleted; is that right?
A Yes, sorry, which page in draft two?
Q It would be about five pages on from there, I believe.
A On from --
Q If you look at page 19 of draft two.
A Uh-huh.
Q The last paragraph there, partial paragraph there begins "Tsimshian traders who lead annual trade delegations"?
A Yes.
Q Now, relate that back to page 16 of draft one. That's the paragraph above the paragraph we're talking about?
A Yes.
Q And then going back to draft two, the next paragraph after the Tsimshian traders paragraph is the one that begins after the Haida paragraph?
A Yes, so the Haida paragraph was dropped. Is that the point?
Q Yes.
A I considered that it wasn't that relevant. It was really about how the Haida got oppressed, and didn't particularly seem -- it was more a Haida story than it was a Tsimshian.
Q And you talked briefly this morning about taking out the word "Metlakatla" in the title. And so, doctor, is it your understanding that the people of the Metlakatla Indian Band are descendents of the same tribes as the people of the Lax Kw'alaams?
A Yes. That's why I use the "Metlakatla/Lax

Kw'alaams" in my own thinking, because of course, they did move with Reverend, or with Mr. Duncan, in the 1860s, from Fort Simpson to Metlakatla. The villages there they had abandoneded for a period of

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20 some years, 30 years perhaps. But the term "abandon" is not appropriate, because of course, they were still using them seasonally. What they did, they moved their major dwellings closer to the fort, partly for defence against the Haida, who were still harassing them quite a lot.
Q But the ten tribes, which later become nine tribes that we referred to in the report, they are also descendents of those tribes too?
A Yes. Not all in Metlakatla; some of them lived outside of Metlakatla, but the majority that are represented at Fort Simpson were living at Metlakatla, or all of them were living in the Coast Tsimshian territory, but some of them had major sites outside of the Metlakatla area. Metlakatla includes the Venn Passage. It does not include the whole Prince Rupert Harbour, for instance, Metlakatla Pass.
Q Right. But we're not just talking about the physical pass here, we're talking about the people from the Metlakatla Indian Band?
A Yes, that the people were all, virtually all, let's say, in the Prince Rupert Harbour, they were attracted to their old camping spot at Fort Simpson when the Hudson's Bay Company moved its site from the mouth of the Nass to Fort Simpson. Then when there was the missionary advocating that if they were going to make substantial progress, they had to remove themselves from the influence of the fort and the traders and they moved to Metlakatla; subsequently, of course, was the move with Reverend

Duncan again to new Metlakatla up in Alaska. So they have moved very considerably, but it is primarily the population that historically is being traced in the archaeological record.
Q But some of the people remained in old Metlakatla as well, who have been there?
A Certainly, seasonally there could have been people; I'm trying to think. I know that when we excavated the archaeological sites there was evidence of gardening going on in the intermediate period; in other words, very little soil around Fort Simpson. And so people would come down and both collect shellfish, and they would cultivate some of the new crops that were being introduced on the old village sites in the Prince Rupert Harbour. But they were primarily domiciled at Fort Simpson from 1834/35,
-- this is, I think it's the second of, the second of the reports by Richard Inglis into Lachane, the one entitled "'Wet' Site Distribution - the Northern Case GbTo:33 - The Lachane Site". And you cite this report in your, this article in your report?
A Yes.
Q I'll ask you to turn to page 172.
A Uh-huh.
Q Under the heading "Containers"; and 36, that means number, does it?
A Yes.
Q And the second paragraph:
"Eleven bentwood box or box fragments were found. All are small containers, perhaps water buckets. Two specimens were complete, having all four sides represented."

And then on page 173, these would appear to be the two specimens that were complete. And the top paragraph gives all three dimensions, I mean the top illustration, and just below the illustration gives all three -- this is on page 173.
A Yes.
Q That gives --
A And may I just say that Inglis did not analyze the collection. He did the analysis based on the

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period between when they were recovered and when they went to the conservation lab. Because they were waterlogged, they were drying out very rapidly, so we made arrangements for them to be transferred to the Canadian Conservation Institute for bulk processing of all of the wooden remains and the basketry remains. They were in the
processes of treatment using polyethylene glycol for a period of two years. By the time they came back from the lab at the CCI, Canadian Conservation Institute in Ottawa, Inglis had moved to a different position at the Royal British Columbia Museum, so he never had any further access or interest in pursuing that collection.

So I actually then analyzed them and found there were sides of boxes which then, once they were preserved, went together. They had come apart, they had broken at their curved seams. And so that there actually were more than this, than in this report, and in fact, they are on public display now in the Tsimshian Prehistory Exhibition at the Canadian Museum of Civilization. So it's, this paper is a preliminary one and does not have access to that collection in full, nor are these numbers complete.
Q All right, doctor. Well, perhaps we can deal first with what Dr. Inglis has to say.
A Sure.
Q And then we'll come and deal with the point you just made.
A All right.
Q All right. In terms of what Inglis has to say here, there's two containers. The top one on page 173 has all three dimensions?
A And it's a water bucket. It specifically was found in an area where water was drawn. It essentially is a water bucket, it's not a trade container.
Q And the lower one doesn't have a third dimension anyway?
A Yeah, because it's just the bottom of a box.
Q All right. So now you say you later analyzed the box and box fragments from Lachane?
A Yes, I studied them further. I have never published them.
Q That was going to be my next question.
A Okay.
Q And you don't refer to any article in here where
that --
A No, because I had them all laid out, I began to work on that when another project swept me away, and I never completed the analysis of that collection.
Q Do you have your, any notes of that analysis?
A They would be in the Canadian Museum of Civilization. I left all of my working notes.
Q Forgive me; did you finish?
A Yes.
Q Sorry. You don't refer to those notes in this final report, do you?
A No, I don't. I'm not sure they exist, but they may. I'll just say I left 20 filing, four-door filing cabinets full of notes when I left the Canadian Museum of Civilization, and whether they've even gone through them and catalogued them is an open question in my mind.
Q Now, doctor, on, I believe it was November 22nd, during cross-examination of yourself, you referred to bentwood boxes being available online through the --
A Yes.
Q And --
A Ethnographic.
Q Through the museum's web site?
A Correct.
MR. RUSSELL: And -- excuse me, my lady, we just obtained these today, and I'm not sure I've got all the copies of this. Perhaps it might be an appropriate time to take a break?
THE COURT: That's fine.
THE WITNESS: There should be about 30 of them online.
THE REGISTRAR: Order in court.
(PROCEEDINGS ADJOURNED AT 3:00 P.M.)
(PROCEEDINGS RECONVENED AT 3:20 P.M.)
THE REGISTRAR: Order in court.
MR. RUSSELL:

Q Now, Dr. MacDonald, we were able to print off from the museum's web site today 18 items, and I'll produce it to you and I'll go through the search terms that we used, but it's through the, using the catalogue search engine at the web site; so if I may pass that forward. We've added on to it some,

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a number of these pages we've added on some handwritten calculations, which I'm going to propose that we check overnight if need be. So I'll forward those. So that in particular, on the first one you can see the handwriting in the bottom right-hand corner there; that's not obviously from the web site. And the same, I believe, for the first five sheets, it's got that handwriting.

So the search that we did was using the search terms "box", "Tsimshian" and "Barbeau"; you can see that, for instance, on the top of first page; it also should be on each page?
A Yes.
Q And so we found 18 items. Do you know if that's correct, in terms of the number of items?
A I believe there are more than 18 in there. It would depend on -- because I looked in it on several occasions, and would find new ones each time that I had not seen previously. I'm not exactly sure why new search terms brought up more examples, but there were more than 18; not a lot more than 18. I maybe guess at 24 were the total numbers, if you used all the search terms that somehow or other applied to that.

The one thing, I'm not sure if you have the cedar bark box in here, but you know, that was one of the boxes that may not have come up in your term, in your search. It was a container of the same rough dimensions as these, I don't see it
here, but made of bent sheets of cedar bark, what I would call sort of a -- oh, you actually have it, you have it here. That's it. So that doesn't count as one of the missing ones.
Q How many in is that one, doctor? How many in is it, closer to the beginning or --
A That is three, four -- page one of three, that's on the search one.
Q Yes, forgive me, these aren't numbered.
A Three, four, yes.
Q Does it have handwritten calculations on it?
A Yes, it does.
Q All right.
A Yes. It's catalogue number VII-C-1338.
Q And that one's cedar?
A Yes, that's made of cedar bark. It's lying on its side in the illustration. It would have been vertical, but the more height than width or

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breadth.
Q All right. Now then, so do you have access, say tonight, to this web site, to be able to go through and see if there are any more that you can find and print off?
A Yes, I could do that.
Q Okay, I would ask you to do that if you can. So what we're looking for is if there are other print-outs. This is the complete print-out that we got when we did the search.
A Uh-huh.
Q But we have also experienced that. In fact, we've experienced inability to access the web site, mostly; and then when we did get it, we didn't print off, and then today we got in and we printed off, and that's how come we got it today. We didn't realize we weren't going to have access in
the interim.
A Okay.
Q So we got these 18, so we have experienced some variation in what, what is available. So if you can also do that tonight, that would be excellent. Also, what you will see is that it's only the first five that have all three dimensions for the measurements for the box?
A Yes. I believe there are more, I will check that as well. I believe I said once before that what I found frustrating was whoever was cataloguing the pieces were not consistent in measuring length, width and height, in terms of the box as it would have been used, as opposed to the one I've just cited, which is now lying on its side in the illustration, and probably was measured on its side, which throws off all the length, width measurements. So it's obvious to anyone who has studied them that there is a face to every box if it has any decoration at all, because there's a front and a back image, because the box is surrounded by a supernatural protector, the goods in the box.
Q Now, turning to the fifth one, the last one with the handwritten calculations on it?
A Yes.
Q I think it's the only one without an image?
A Uh-huh.
Q Can you tell from the information here what kind of a box this is, or if indeed it is a box? Oh, it

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box, but without a picture I can't -- or without a descriptive. They've left the categories out that have to do with the material. Those are recorded in their records, but they're not on the web site, which is only what is referred to as tombstone data; that is, just the very essential elements, and not the many other fields of information that is reported about each one of those pieces.
Q So if we return to the one on the page immediately before that, the fourth one, the CD; and below the picture there's a third line which says "CD96-110". Does that refer to the cedar, the CD there?
A We're on this page?
Q Yes, the fourth one, it's V -- it's Roman numeral VII-C-1338?
A Well, if it's CD, that's the catalogue number, VII-C-1338, that's correct.
Q And then if you look at the illustration, I will read it out to you, doctor, if you cannot read it, but below the illustration there's a lengthy number?
A Oh, yes.
Q And it says ".base.jpg", then below that it says "S94" with some further numbers. Below that, for this picture, it says "CD96-110". Do you know if that means cedar or --
A Yes. No, it does not. I was director at the time that this was recorded. It means that it is on CD, compact disk number 696, which meant it was created in 1996, and it is item 110 on that compact disk --
Q All right.
A -- in storage.
Q Thank you, doctor. So then are you familiar with converting cubic centimeters to gallons?
A No, I'm hopeless. That's why I didn't do it.
Q All right. I don't propose that we do any calculations in court, but what I am going to do is produce a conversion factor sheet from Transport Canada, I trust it's got the appropriate conversions so that people can check the handwritten calculations, and we'll just get the extra copies. If I may, my lady, pass those
forward to you.
So, doctor, this, just very quickly, it's -okay. What it does is it converts the litres to imperial gallons about just over half, just under half-way down the table. The first column says "litres" and the second column says "imperial gallons", and below that there's a conversion to US gallons --
A Correct.
Q -- which are different. And when you're talking about five gallons in your report, are you talking, are you using imperial gallons or US gallons?
A I was referring to tea chests that are now in use even today, I imagine, they were 20 years ago, for the exchange of goods between the Nass River and the Skeena River areas, and chopped seaweed goes one way and oolichan grease goes down from the Nass. So I was wondering the other day, the tea chests are somewhat like this, and as I recalled in talking to the chap on the ship that was, on the boat that was taking them up for trade in the Nass, that they were tea chests that were sold in the stores in Prince Rupert and Port Essington and wherever, that came from China. So I would assume they would, they would be in imperial, not in US, because the original container was for tea.

And I realized that they are much smaller than the boxes that were used in, that I saw in the collections in the museum, which they were essentially, as I recall, two sizes. One would have been, and I checked them at the time with the hand-span calculations that Garfield had recorded for width and breadth of the boxes, and they, they were approximately the same for Garfield's calculation of the size of boxes and those in the storage of the Museum of Civilization, with the exception that there were additionally tall boxes like the one in the, in 1338, VII-C-1338, because that box could obviously not have held oolichan
grease, probably wouldn't have held it anyway, it would have run out, but that size of box, which are the taller of the two boxes, would have been for some form of dried material.

Seaweed would be a natural item to be traded. So the people who are on the trails and that Horetzky talks about who have the boxes of grease on their back, as opposed to the boxes of other

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foodstuffs being traded, there essentially were large and small size trade boxes, depending on whether it was dry goods or wet goods, grease. Grease is dense, heavy. A box of grease has a very considerable weight to it, would be probably as much as a person could carry on the trail for a long period of time, although they carried incredible weights. Whereas the volume, if it was a lighter material, dried fish, dried seafoods, dried seaweed, dried herring spawn, would have been in the lighter baskets, because they're dried foods.
Q Are you saying, doctor, now, are you now saying that there are two different standard sizes of boxes that were used for trading?
A I would say the dry good and wet good, there are -I was always aware of the fact there were quite tall boxes, as well as much shorter boxes, and that's what I tried to do by taking the notations, at least the measurements that I could read off the screen, and realizing that there was no consistency in length, width and height that I could work with. Probably it could be done, but it would be a particular study that would undertake to do that from all the collections that have large numbers of those boxes. And it was my impression from looking at that, there was a dry goods box which had a
greater volume than a wet goods box. And it seemed to me that when I looked at the ones that I would think are the ones for denser wet goods, that they often had oolichan grease staining on them, or certainly grease, indicating that they were holding flesh or, you know, oolichan grease, as opposed to seaweed; and berry, berry cakes are also very light when they're dried, they're berry leather essentially. Dried clams are very light, because they mean smoked and dried.
Q So doctor, is the answer yes, that you are now talking about two different sizes of standard boxes that they used for --
A Yes. I recognized as the work went on, and I regret that I didn't make that clearer in the report, it was something that has, you know, come out of the look at those boxes. I was primarily interested in their manufacture rather than their use in earlier times. So I've looked at them many times with different objectives in mind, but I'm

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| 1 | clearly of the impression which would, of course, |
| :---: | :--- |
| 2 | only be verified by doing an analysis of the |
| 3 | variations of boxes, but that there are -- they |
| 4 | cluster. This is very much the kind of parlance |
| 5 | archaeologists use, if you have a population of |
| 6 | objects, that they will tend to polarize into two |
| 7 | distinct categories, if there were two sizes in |
| 8 | use. So I'm of the impression that there's a dry |
| 9 | goods box and a wet goods box, which related to |
| 10 | having to carry them by hand or on your back, over |
| 11 | the trails. |
| 12 | Q So doctor, are you now saying that your opinion |
| 13 | with regard to standard size boxes for trade <br> 14 |
| 15 | Apurposes is not verified? |

overlooked one, and I think Garfield overlooked one. I think Garfield's measurements of the hand-spans that she recorded in her 1930s some volume were the grease boxes, and I think that was her special interest. But I think there are examples in the museum collections of taller boxes, and ones such as those temporary ones made out of cedar bark that were used for lighter goods. It's a definement of the original --
Q So is your opinion, is your opinion on this, is it verified, in your mind?
A By observation, yes. By statistical analysis, no, it's never been done.
Q All right. So in your report you talk about containers of a volume of five gallons?
A Those were the historic ones that I saw which were tin, essentially tin cans. They were the tin boxes that I personally witnessed the exchange going on, and I realized that those are not as big as the, any of the boxes, big or small, but they were larger than that, that Garfield described, and that Barbeau collected.
Q So what is, what is the other size, standard size of box that you're now talking about?
A I'm talking about the one that Garfield describes as being the width, three times the width of distance between the second finger and the third finger. She has all of those measurements in her field study done at Lax Kw'alaams in the '30s.
Q Do you know what that volume is?
A No. I think I suggest in here that it, that the hand-spans convert to certain number of inches, so

A No.
Q And have you had somebody else do it for you?
A No.
Q So you're not presently aware of what the volume is for that?

A Yes.
Q When Garfield talks about the finger-spans, which we'll come to?
A Right.
Q You're not presently aware of what the volume is for that?
A No.
Q Is it more than or less than the five gallons?
A It's more than.
Q All right. Do you have a sense of how much more it is?
A It could be four times more, looking at how, when you increase something, you're increasing it in three dimensions, the boxes are bigger in three dimensions, not just one dimension. So the volume then becomes a multiple of probably three or four times. But it was grease that was in the boxes I was looking at at Kinkolith. That was grease, and they were heavy. So I imagine the boxes that Garfield sets the standard for would be three to four times what a five gallon pail of oolichan grease would actually weigh. These, these, of course, are very much like any of the trade item, trade containers that were used in China before Chin Shih Huang destandardized weights and measures or that, in Europe, when certain standards were laid down in Britain for container sizes which, you know, wasn't until the 13th century or so, and in, on the continent when Napoleon laid down the Napoleonic code for the measurements, his people, for litres and so on.

So the standardization into the exact science as we now it as is a relatively recent thing, and before that it was done in hands and feet, and you know, that's the basis in English measurement, is so many feet. And the Tsimshian had so many spans of the hand to determine what a box would be, knowing, I assume, that a box bigger than that would be hard to carry full of grease on the trail,

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and that I don't think there's any question that the main product being taken over those trails was grease, the main heavy goods. Most other things were dried and light goods.
Q And then when you gave your evidence earlier you talked of -- this will be two weeks ago now, approximately -- you talked of looking at the measurements online and doing some calculations with regard to those measurements online?
A Well --
Q Did you make any notes of those calculations?
A No, I just did them on a telephone pad that we, you know, throw the notes way. I just tried to calculate what the volume would be and that's, I think, when I made the comment that, you know, I'm not a mathematician and I got nowhere with those. So those, those were nothing more than multiplications to see if I could come -- and I actually looked online to try and find something like this, and I wasn't able to. I just kept getting either weight conversions or volume conversions from metric to regular; what's the other one called, non-metric, the English system.
Q Imperial gallons?
A Not being able to go from volume to liquid weights, I didn't, I didn't come across anything as useful as you have.
Q Now, then for ease of reference here, I will just point out that the fault line in this table, conversion factors table, goes from imperial gallons to litres; do you see that? That's the other way, the other direction?
A Right.
MR. RUSSELL: So my lady, can we have these marked the next exhibit? That's the table, I mean, the collection of 18 items, and then also the conversion factor table.

THE COURT: So the computer print-out can be Exhibit 21 and the conversion table Exhibit 22.

EXHIBIT 21: Computer print-out of collection items
EXHIBIT 22: Conversion table
MR. KIRCHNER: If I might ask my friend if he has another copy for Dr. McDonald. He has asked Dr. MacDonald to look at this overnight, and it

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
might be useful, because the doctor cannot take the exhibit copy.
THE COURT: Do you have another one, Mr. Russell?
MR. RUSSELL: I believe we don't, unfortunately. We can have another one made -- pardon?
MS. KEENAN: Is yours marked, the conversion table?
MR. RUSSELL: Yes, I previously marked it. Perhaps, my lady, we could take a copy, take a photocopy and have it made quickly.
THE COURT: Yes, or I mean, my copy just has the areas highlighted that you mentioned, so you can use mine if you want.
MR. RUSSELL: Thank you, my lady. And so tomorrow when we come back to this, I'll want to deal substantively with the volumes in here, so that if you have an ability to check the calculations, or perhaps we can go through plaintiffs' counsel and see if they confirm the calculations, that might be the best way to go in terms of that.
THE COURT: Then they can just go in by admission.
MR. RUSSELL:
Q Yes. And also, of course, it's my earlier request that, for you to see if you can obtain other examples?
A Yes, I will.

Q All right. And have we done it the right way through the catalogue search?
A Yes. As you note, the queries bring up different items from the collection. There are some 10,000 objects in the northwest coast collections at the Canadian Museum of Civilization, so as you can imagine, there are, you know, quite a few that don't have hits, depending on what query word you use. They should come up in boxes, but there are many different kinds of boxes, and that's probably why you didn't get as many as I think I got. I just kept going back after it, looking in different ways at the collection.
Q Would you suggest --
A I'm pretty certain it's more than 18.
Q Doctor, sorry, would you suggest a different search word to use?
A I believe there's one that has to do with trade and transportation, it's a whole category, and so it would be worth, I think, looking under that category of trade and transportation, under Tsimshian, as well as then looking, as you have,

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)
for "box Tsimshian", or --
Q With Barbeau here?
A Barbeau, right. Are you interested or not in ones that are collected by other than Barbeau, or did you --
Q Well, it's the ones, doctor, that you looked at, first of all, we were interested in, and then secondly, other examples of boxes to see.
A Okay. I believe that, you know, there may not be many more than 18 that Barbeau himself collected, but there are many other well-documented boxes, or there are, I shouldn't say many, there are other documented boxes that came from Emmons or from

Harlan I. Smith, or some of the other collectors who were in the area early on in about the same time as Barbeau. But you wouldn't have got them if you searched just for "box Tsimshian Barbeau". That would have -- that's probably the proper, 18 is probably the number he collected personally, and then there were others that were collected by other researchers at an early date --
Q Now, doctor --
A -- that were part of the collection.
Q The two standard sizes that you're now talking about in your oral evidence, for trade purposes, would you expect to see those demonstrated in the boxes at the CMC?
A Yes. I would think that that would -- you know, just looking at the pictures, I can see some are the tall boxes and some are the shorter ones. I see one of them has a height of 56 centimetres, that's quite large; the other ones are more like 40 centimetres, and there are a number there that are 53 and a half centimetres. There are a number that are in the 50 to 60 centimetre range, and then there's, the second one is 49 centimetres.
Q All right, doctor. I want to move on now to the finger-span measurements of Garfield's. Would you just explain to the court who Garfield is?
A Yes. Garfield was professor of anthropology at the University of Washington in Seattle who began her studies first at New Metlakatla in Alaska, when she went on a trip up there, and I think as I reported earlier, was told that if she wished to have some of the earlier information, then she should work at Lax Kw'alaams. So around '32 or so she began to work at Lax Kw'alaams, and then eventually

George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

Tsimshian in '37, I think it was that her monograph appeared. And then she published a series of papers and other publications; "The Tsimshian and Their Neighbours" was another one published in the '40s. So she is one of the people who did direct ethnography at Lax Kw'alaams. In fact, she and Barbeau were the two primary researchers to work at Lax Kw'alaams.
Q So just, we turn, if we could turn to the final report at page 27 , the lower part of the page. It's the paragraph that begins "Viola Garfield"?
A Yes.
Q And I will read it out:
" -- who worked with William Beynon and knowledgeable elders at Lax Kw'alaams from 1932 on, commented on the standard size of storage boxes."

And you've got 1939 and then page reference 320?
A All right.
"Boxes for oolichan grease and seaweed storage were three middle finger-spans high and two first finger-spans wide on each side. A finger-span is measured from the tip of the outspread thumb to the tip of the finger."

That's got quotations around that. And then you go on to say:
"This is equivalent to 14 inches on each side and 24 inches in height."

A That's the small box.
Q All right. I believe, doctor, that the reference, and I don't think this is of any consequence, but the reference there should be to page 329, and we're going to turn to that.
A Okay.
Q I think we have both pages, so we can see. I will forward that up. And this is a work that you yourself cite in the report?
A Yes.
Q Actually, it seems that we don't have page 320, but 329 looks like it is the page. It's the appendix
with exchange values of goods?
A Yes.
Q Would you agree with me that this is the right page you're referring to?
A Yes.
Q So at the bottom of the page, doctor, page 329, paragraph, and I will read it out:
"The following list of exchange values was given by three informants. The list is not complete and includes articles of both native and white manufacture."

And then that's the list?
A Yes, I've gone over that, and I seem to recall that she may have made a misstatement somewhere, because I worked them out as to the 40 groundhog skins were equal to a caribou skin, a caribou skin for a large box of grease, so therefore, the equivalent is 40 groundhog skins for a large box of grease. And then I think somewhere she has, yes, 40 groundhog skins for one large box of grease, so that's verified as that one, and one groundhog skin for one dried fish, herring or salmon.
Q And this is the -- oops.
A It's unfortunate she didn't make a table rather than putting them in that kind of list.
Q But if we look at the footnote, that's where the finger-spans comes in?
A Yes.
Q So I'll read it out. Footnote number 1:
"Boxes for oolichan grease and seaweed storage were three middle finger spans high and two first finger spans wide on each side."

And then she states:
"A finger-span is measured from the tip of the outspread thumb to the tip of the finger."

So from the middle finger would be like that, and for the first finger it would be the distance between those two, is that right?
A Yes. That's what I interpret her as saying, yes.
Q And that was based on three informants?
A That's what she says.

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George MacDonald (for Plaintiffs)
Cross-exam by Mr. Russell (cont'd)

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1 Q Then if we turn to --
2 A May I add that, just that, you know, I measured it
3 at seven inches as I recall, when I measured that,
4 the maximum span, and I say, and that was two of
Q Then if we turn to --
A May I add that, just that, you know, I measured it at seven inches as I recall, when I measured that, the maximum span, and I say, and that was two of these spans. So 14 inches was the, was that measurement.
MR. RUSSELL: Right, thank you, doctor. Excuse me, my lady, if I may, just a moment?
THE COURT: Well, we're almost there anyway. Do you want to stop for the day?
MR. RUSSELL: Yes, my lady, that would be appropriate.
THE COURT: Mr. Kirchner? Now, you didn't need a copy of this, Exhibit 22?
MS. KEENAN: We have found one, my lady.
THE COURT: Just before we do break, did you want to mark this document that we've been looking at as an exhibit?
MR. RUSSELL: Yes, my lady.
THE COURT: Make that Exhibit 23, the Tsimshian Clan and Society.
EXHIBIT 23: Excerpts from document entitled "Tsimshian Clan and Society"
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THE COURT: We also haven't done anything with Mr. Inglis's article; I don't know.
MR. RUSSELL: I would --
THE COURT: I'm not sure --
MR. RUSSELL: I think we should enter that as well.

THE COURT: I'm not sure if Dr. MacDonald really agreed with that one. I don't know if you laid the foundation for that one.
MR. RUSSELL: Well, I'm in your hands on that one, my lady.
THE COURT: All right. You want it marked as an exhibit?
MR. RUSSELL: I'm not pressing the point.
THE COURT: All right, let's leave it then. All right, adjourned until tomorrow then.
THE REGISTRAR: Order in court. Adjourned until ten
a.m.
(PROCEEDINGS ADJOURNED AT 4:00 P.M.)

## REPORTER'S CERTIFICATE

I, REESA PEREIRA, Official Reporter in the Province of British Columbia, BCSRA No. 282, do hereby certify:

That the proceedings were taken down by me in shorthand at the time and place therein set forth and thereafter transcribed, and the same is a true and correct and complete transcript of said proceedings to the best of my skill and ability.

IN WITNESS WHEREOF, I have hereunto subscribed my name this 12 th day of December, 2006.
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EXHIBIT 18: Introduction written by 18 Dr. MacDonald entitled "Perspectives"

EXHIBIT 19: Draft two of report 20 entitled "Metlakatla/Lax Kw'alaams Land Claim file"

EXHIBIT 20: Excerpts from the 42 Historical Atlas of Canada

EXHIBIT 21: Computer print-out of 66 collection items

EXHIBIT 22: Conversion table 66
EXHIBIT 23: Excerpts from document 71 entitled "Tsimshian Clan and Society"

