### 8 | The Expert Evidence – Forensic and Medical Witnesses

A good deal of medical evidence was placed before me regarding the physiological cause of Neil Stonechild's death, and the nature of the injuries that were apparent on his body when he was found. In this section, I review the testimony of the physicians that were called upon as witnesses at the Inquiry hearings; both those that were involved with the investigation of Stonechild's death in 1990, and those that were consulted more recently. I begin with a review of testimony of Dr. Fern, the Coroner who was called to the scene where Stonechild's body was found.

#### Dr. Brian Fern<sup>289</sup>

Brian Fern was the Coroner appointed to the Stonechild investigation. He was qualified to practice in Manchester, England in 1961. After five years of practice he moved to Milden, Saskatchewan where he resided from 1966 to 1970. In that time he was called to investigate an accident and served as the Coroner. In 1970, he moved to Saskatoon and has been in general practice since, primarily doing surgery. He remained an active Coroner throughout that time. He had no special training as a Coroner.

In his opening testimony, Dr. Fern outlined the work of coroners. He explained that if there are any suspicions that a death might not be entirely due to natural causes, a Coroner would normally be called. Under those conditions the Coroner is required to identify the deceased and establish how, when and where that person died. The Coroner may also make recommendations as a result of his investigation in order to ensure that similar deaths do not occur in future. He or she functions in co-operation with the police department and can request the assistance of the police. The police however, he says, do the primary investigation.

The Doctor also explained how the function of a Coroner has changed over the years. He testified that today a Coroner rarely calls for an inquest, that is, a formal hearing to investigate the circumstances surrounding a person's death. The Chief Coroner may call for an inquest.

He recalled attending at the Stonechild death scene. He determined that the person found was deceased and then tried to identify the body. He described his function in assessing a death scene and trying to identify the cause of death. He noted that factors such as footprints and articles of clothing may be looked at, although, he indicated, that the police were primarily responsible for examining such matters. He was fairly sure that he was told at the scene that the deceased person was a young offender and that the officers knew the deceased's identity. However, under cross-examination he acknowledged that his notes<sup>290</sup> of the call from the Saskatoon Police Service indicate that he was initially given an age of about thirty for the deceased, and that he did not have a clear recollection of when he was told that the deceased was a young offender.

He observed the body was "quite frozen" and instructed the police to turn the body over for observation. He did not see any wounds that were obvious, such as a gunshot or something of that kind, and apparently did not notice the cuts on Stonechild's face. I add that the frozen condition of the body might, to a degree at least, have disguised the injuries. I base that observation on the photograph of Mr. Stonechild's face when the body was turned over.

<sup>289</sup> Evidence of Dr. Brian Fern, Inquiry transcript, vol. 10 (September 23, 2003): 1700-1855
 <sup>290</sup> Notes of Dr. Brian Fern, Inquiry exhibit P-45

He also explained the process of rigor. He confirmed he did not make any particular notes at the scene because there were photographs taken at the scene. He did observe that it was a strange place for a body to be found and that there were obvious questions to be answered: "How did he get there?", "Why was he not on the roadside?" The doctor ordered the body to be moved to St. Paul's Hospital in Saskatoon and gave directions for an autopsy. He explained that an autopsy would be required where there was an unexplained death and particularly where the person who was deceased was only 17 years old. He assigned Dr. Jack Adolph to carry out the autopsy. He confirmed that the autopsy report would influence his decision as to whether to call an inquest.

Dr. Fern's notes indicate that at some point he was informed of the age of the deceased and was told that he was a young offender absent without leave from Kilburn Hall and had been missing from Kilburn Hall since November 14, 1990. As I have noted elsewhere, Mr. Stonechild was unlawfully at large from a community home.

He subsequently received a call from Jerry Mason (Neil Stonechild's uncle) asking about the cause of death. He advised Mr. Mason that it was due to exposure.

Dr. Fern's notes<sup>291</sup> also contain reference to a telephone conversation with Keith Jarvis on December 6, 1990. Counsel asked Dr. Fern to read the note:

"A. I'll do my best. "Definitely seen alive 9:30 Saturday 24 November. Had been to party. Drank about 26 ounce." This is purely what I've been told.
"Tried to get into an apartment shortly after midnight, Snowberry Downs." I think that's what that says. "All confirmed by friends who were with him. Body was well frozen. Temperature was very cold Probably died Sunday 25 November."<sup>292</sup>

A series of documents were identified through Dr. Fern, including the Declaration of Coroner<sup>293</sup>, Notification of Death<sup>294</sup> and Registration of Death Form, all signed by him on December 3, 1990.<sup>295</sup> Dr. Fern also identified a copy of the Autopsy Report that he received on February 1, 1991.<sup>296</sup>

In the Declaration of Coroner<sup>297</sup>, he gave the cause of death as exposure, though he noted that the police were still investigating the matter. Under the category of mode of death, Dr. Fern wrote "natural". Then crossed that out and wrote "accidental". In the Registration of Death Form<sup>298</sup>, he recorded that the death was due to "exposure to extreme cold" and "possibly inebriated". In column 30 of the Registration of Death Form, entitled "Accident or Violence", Dr. Fern recorded "Accidental exposure to extreme cold".

<sup>&</sup>lt;sup>291</sup> Notes of Dr. Fern, Inquiry exhibit P-45

<sup>&</sup>lt;sup>292</sup> Evidence of Dr. Fern, Inquiry transcript, vol. 10 (September 23, 2003): 1725

<sup>&</sup>lt;sup>293</sup> Declaration of Coroner dated December 3, 1990, Inquiry exhibit P-46, reproduced in this Report as Appendix "M"

<sup>&</sup>lt;sup>294</sup> Notification of Death dated December 3, 1990, Inquiry exhibit P-48

<sup>&</sup>lt;sup>295</sup> Registration of Death Certificate dated December 3, 1990, Inquiry exhibit P-47

<sup>&</sup>lt;sup>296</sup> Autopsy Report dated January 30, 1991, Inquiry exhibit P-49

<sup>&</sup>lt;sup>297</sup> Declaration of Coroner dated December 3, 1990, Inquiry exhibit P-46, reproduced in this Report as Appendix "M"

<sup>&</sup>lt;sup>298</sup> Registration of Death Certificate dated December 3, 1990, Inquiry exhibit P-47

Dr. Fern was also asked about the certain notations that appeared in the handwritten draft Registration of Death Form which he prepared on the same date as the official Registration of Death Form.<sup>299</sup> In particular, he was questioned about his entry in "Accident or Violence" column (30) of the draft Form. While in the official Form he recorded "Accidental exposure to extreme cold", in the draft Certificate he recorded "undetermined". Dr. Fern testified that despite this discrepancy, he remained of the view that it was undetermined whether the death was due to accident or violence. He speculated that the official Registration of Death Form was likely brought to him by the funeral home personnel who required a Death Certificate before they could bury the body. Dr. Fern suggested that in filling out the official Form and supplied it to the funeral home. He maintained that if he had put his mind to it, he would have recorded "undetermined" in the official Registration of Death Form. This somewhat ambivalent answer was not further explained.

Dr. Fern received the Regina Crime Lab Toxicology Report<sup>300</sup> from the Saskatoon City Police in April 1991. There was no explanation offered by Dr. Fern or anyone else as to why the report was sent first to the police and not to him as was the usual practice. When pressed for a possible explanation, he suggested that the police got the report first because it was of "interest" to them for some reason.

- "Q. Dr. Fern, do you, other than the notes that we've reviewed, do you have recollection of any contact with members of the Saskatoon Police Service, and particularly anybody that might have been investigating the death of Neil Stonechild?"
- A. Other than as recorded, no, I don't, although obviously I received the toxicology reports. I actually got them from the Saskatoon City Police, which is a bit unusual. They usually come straight to me, but on the other hand on this occasion they came to the City Police first. And presumably I took it from that that the City Police got the first copy and for one thing and for another thing that presumably it was a case of interest to them for some other reasons."<sup>301</sup>

That answer was never explained nor was the delay in forwarding the report to him. He observed from reading the report that there were no common drugs found but there was an alcohol reading at 150 milligrams in 100 millilitres of blood.

Fern was questioned about statements attributed to him in a December 3, 1990 StarPhoenix Article.<sup>302</sup> He was asked about the statement that "the weekend exposure was the probable cause of death" and "we have excluded obvious foul play as he did not have an injury of any kind":

"A. Oh, I'm sorry, there are two episodes here. My apologies. One is in relation to a case I wasn't involved with. It says here, "... said on the weekend exposure was the probable cause of death." That would be correct. "We have excluded obvious foul play as he didn't have an injury of any kind." I am not

<sup>&</sup>lt;sup>299</sup> Handwritten Draft Registration of Death Certificate, Inquiry exhibit P-48

<sup>&</sup>lt;sup>300</sup> Toxicology Report, Inquiry exhibit P-50

<sup>&</sup>lt;sup>301</sup> Evidence of Dr. Fern, Inquiry transcript, vol. 10 (September 23, 2003): 1743

<sup>&</sup>lt;sup>302</sup> StarPhoenix Article of December 3, 1990, Inquiry exhibit P-51

sure that I would say that, but either way, that's what's written. "However, there will be further police investigations. We still don't know how he got to be there and under what circumstances." With that I would agree. He did have some injuries, but they certainly weren't injuries which would have themselves contributed to his death. Injuries of the kind described on the face are certainly not fatal under ordinary circumstances."<sup>303</sup>

Notwithstanding these observations he took no further action either before or after he received the toxicology report.

The Coroner was also asked about an interview with the CBC in June of 2003. In particular, he was referred to the comments he made to a reporter that Stonechild's injuries were consistent with being beaten and dragged. He confirmed that there was such a conversation. While the terms "beaten" and "dragged" were words suggested by the reporter, Dr. Fern acknowledged that he told the reporter that the injuries could be consistent with such a scenario depending upon how one defines the term "beaten". It is difficult to reconcile these statements with what was in his reports.

Dr. Fern painted a somewhat discouraging picture of the operation of the Coroner system in Saskatchewan. He confirmed that he has never attended a formal meeting of coroners since he began his work in 1967. He has attended some upgrading sessions called by the Chief Coroner from time to time but described them as infrequent. I was prompted to ask:

- "THE COMMISSIONER: Doctor, are you telling me that there were no you said there were no guidelines, but you mean there was no information emanating from the Chief Coroner's office to coroners in the field indicating what sort of protocol or process that should be followed?
- A. Well, Your Honour, the going back a way, the coroners had huge power when they were started back in the 1200s and as time has gone on, most of those powers have become belonging to other parties and the coroner's role, as far as I've described them now – when I came here, the – let's go back to 1962. In 1962 a fair number of the physicians who were coroners at the time, for various political reasons of the day and I was not here at that time, but I mean there was all of a sudden a shortage of physicians and a shortage of coroners, and I understand a lot of coroners got appointed, and they were lay coroners at that time, a variety of people who otherwise had no particular knowledge of the medical type of factors involved in death. And to this day the majority of the coroners are now lay coroners, which is an interesting point. Over time it was probably reasonable to expect a physician to know most of the things that would be involved in the assessment of death. That's not necessarily the case for lay coroners, of course, it's a harder position for them to take. Having said that, therefore, over time we now find that the Chief Coroner today does, in fact, send out information sheets fairly frequently, at least once a year or twice a year. We don't have meetings. There are no formal structured meetings of any kind. There is no formal training. I have to tell you that, but I mean I've been at it a long time. I'm no novice at this.

- THE COMMISSIONER: Well, I'm not doubting that, but so you mean there isn't any sort of assessment or analysis provided by the Chief Coroner with respect to the work that the coroners in the field or any interchange or interplay of information between coroners and the Chief Coroner as to whether a particular Coroner is performing his or her task adequately?
- A. Well, to be honest, I don't know how the Chief Coroner handles it now. You'd have to talk to the Chief Coroner. I don't know whether he's giving evidence or not. Certainly this Chief Coroner communicates a lot more than was previously the case. The first Chief Coroner, Dr. McMillan, I knew on personal terms, so we would phone each other and that was the way things were done in those days. With Dr. Stevenson there was a lot less communication. With Dr. Nyssen, the current Chief Coroner, there's a fair amount of written communication and I know him personally. So I mean if there's an issue I phone him up. I don't phone him very often, but I'm free to do so.
- THE COMMISSIONER: But how would the Chief Coroner know whether a particular coroner was discharging her or his responsibilities adequately?
- A. Well, frankly, I don't know, Your Honour, but I assume that the Chief Coroner reads all our reports and the assessments, the documents that come to the Coroner's Branch. We have to send everything in to them so he has access to that. And I know now and again he'll write me a letter and say on a given case that he wants me to review whatever the issue would be and I will do so. So I mean it is considerably better in that regard than it used to be."<sup>304</sup>

He conceded that he was obliged as Coroner in 1990 to follow-up any suspicions he had with respect to a death. It follows that he could not simply depend on the police to carry out any inquiries they thought appropriate into a suspicious death. In the case of Mr. Stonechild, he did not carry out any such follow-up nor did he do any follow-up after receiving the Toxicology Report. He explained this by saying he did not think there was anything unusual about this case. When asked again about a 17-year-old being found dead who was not suffering from any kind of illness, not near his home or a residence, found in an unusual location and not near any bar or restaurant, he agreed there was no obvious explanation for Neil Stonechild being found where he was. He agreed, additionally, that the discovery that a right shoe was missing was an unusual circumstance and confirmed that he did not take time to observe the worn sock or the hole in the sock, factors which would obviously suggest that the deceased had been walking for some time.

In the course of his comments to the newspaper reporter with the Saskatoon StarPhoenix, he sought to place responsibility on the Saskatoon Police Service for finding out what had happened to the deceased. With respect, he shared that responsibility and it was not discharged appropriately.

In later cross-examination, he agreed that Mr. Stonechild had injuries that were apparent to the naked eye and that too should have required him to make a further investigation. When asked for an explanation, he had none. He was also asked about whether he examined the clothing of the deceased for blood or other bodily fluids, and he confirmed

<sup>&</sup>lt;sup>304</sup> Evidence of Dr. Fern, Inquiry transcript, vol. 10 (September 23, 2003): 1761-1764

that he did not. Such an examination might well have provided additional information as to what happened to the deceased and why he was located where he was.

When asked questions about the cause of the facial lacerations, and whether they might have resulted from falling into "sharp snow" (this was alternative explanations offered by counsel to explain the cause of the injuries as opposed to a blow), he agreed that that could have been a cause, but that he did not think that was so. He also stated that the injuries occurred before the deceased fell into the snow. These were significant observations in light of the other suggestions made during the course of the Inquiry.

He was asked about the marks on the wrists. He concluded that they were caused by a garment and that with a harder object such as handcuffs you would expect grazing or scraping. I would note at this juncture, that these observations do not accord with the later forensic evidence, which I consider to be more reliable.

When the Coroner was asked if he was satisfied with the police investigation, he gave a somewhat equivocal answer, "Well, I was not dissatisfied."

One of the most helpful portions of Dr. Fern's evidence related to what future action might be taken by the Province with respect to the investigation of cases such as this. He suggested that special teams should be organized to investigate homicides, suicides and traumatic deaths. It is worth repeating the full text of his answer:

"A. There isn't – what we're looking at here is how should potential homicides, or suicides, or traumatic deaths be investigated, and quite frankly, if you want my opinion, I'll give it, we ought to have special teams that do this kind of a thing. There are only a small number of people who are trained to do this kind of work."<sup>305</sup>

#### Dr. Jack Adolph<sup>306</sup>

Dr. Adolph was the pathologist who performed the autopsy on Stonechild's body. He described his training in Saskatoon and Winnipeg leading to a fellowship in pathology in 1962. He carried on general practice until he moved to St. Paul's Hospital in 1975. He continued as a Pathologist until he retired in 1997 and has since then done some contract work. He is recognized as a specialist in pathology.

He confirmed that a central part of his work is to determine cause of death, and he provided evidence about the process followed in examining a frozen body.

Adolph confirmed that the clothing he removed from the deceased's body was given to Sergeant Morton, the Identification Officer. He was asked if he would look for blood on the clothing and he said, "not specifically".<sup>307</sup> There were various suggestions during the Inquiry that spots and marks that appeared in the vicinity of the body might have been blood stains, but in light of the fact that the pathologist did not make any investigation of the clothing, nor did the police, we cannot know if the examination of the clothing might have produced important information. In any event, he saw the police as having responsibility for such an examination.

<sup>305</sup> Evidence of Dr. Fern, Inquiry transcript, vol. 10 (September 23, 2003): 1819
 <sup>306</sup> Evidence of Dr. Jack Adolph, Inquiry transcript, vol. 11 (September 24, 2003): 1954-2053
 <sup>307</sup> Evidence of Dr. Jack Adolph, Inquiry transcript, vol. 11 (September 24, 2003): 1959

As indicated in his Autopsy Report<sup>308</sup>, Dr. Adolph established the cause of death was exposure to cold and explained he reached the conclusion by what he called, "exclusion":

- "Q. Now can you describe what your primary function is or primary role is in performing an autopsy in a situation such as this?
- A. To establish a cause of death.
- Q. And were you able to establish a cause of death on this autopsy?
- A. Yes, I thought that death was due to exposure to cold.
- Q. And on what did you base that conclusion?
- A. That conclusion, to me, has always come by exclusion. There are no specific findings in death that's due to exposure to cold and so the approach is to rule out any other cause of death."<sup>309</sup>

He testified that given the temperature on the night in question, a person exposed to the cold would have died within two or three hours. He noted that there are many factors that could extend or curtail length of time before an individual succumbs to the cold.

Adolph was asked about an entry which he made in his Autopsy Report indicating time of death was 2200 hours, November 27, 1990. He could not recall how he arrived at that time of death, and noted that the Pathologist's estimated time of death is typically not reliable. He testified that it was quite possible that Stonechild had been dead since November 25, 1990.

In his Autopsy Report, Dr. Adolph noted two parallel abrasions across the midpoint of the deceased's nose directed obliquely down to the right; abrasions he described as superficial. He explained the difference between an abrasion and a laceration. An abrasion, he explained, results from the loss of the superficial layer of skin, whereas a laceration goes much deeper into the skin. In cross-examination he testified that it would not be unusual to have abrasions on a person's body in cases of death in extreme cold. Such abrasions could come from falling, stumbling or bumping against something. He also observed that the injuries were recent. He suggested that they may have occurred within an hour of death, but he agreed with Counsel that it is impossible to accurately date such injuries.

Dr. Adolph confirmed that the abrasions he observed were caused by something with an edge, but a rough edge not a sharp one, and agreed that the object may have struck Mr. Stonechild's face when he had a fall. He took particular pains to point out that Keith Jarvis's report that there were no signs of trauma on the deceased's body was not correct. He stated that what he told Sgt. Jarvis was that there was no evidence of traumatic death, quite a different matter.

Dr. Adolph also noted in his Autopsy Report that he had found a small stone in Stonechild's left shoe, something he would not have expected to see given the discovery of the body in an open area.

Dr. Adolph was questioned about the level of alcohol in the deceased's blood. He stated that it might have been a contributing factor to Mr. Stonechild's situation, but he also noted

<sup>&</sup>lt;sup>308</sup> Autopsy Report dated January 30, 1991, Inquiry exhibit P-49, reproduced in this Report as Appendix "N" <sup>309</sup> Evidence of Dr. Adolph, Inquiry transcript, vol. 11 (September 24, 2003): 1962-1963

that such an alcohol level is "generally not associated with marked incapacity or coma". This is an important observation as there were many suggestions during the inquiry that Neil Stonechild was very inebriated on the night of November 24/25. The Doctor noted that the level of alcohol in Stonechild's body may have increased after his death as a result of decomposition. He noted, however, that the difference between the alcohol levels at the time of death, and the time the blood sample was taken, should not be significant.

#### Dr. Graeme Dowling<sup>310</sup>

Graeme Dowling is the Chief Medical Examiner for the Province of Alberta. He was recruited by the RCMP to conduct a second autopsy of Neil Stonechild's body in the year 2000. Dr. Dowling received his medical training in Manitoba and was certified in anatomical pathology by the Royal College of Physicians and Surgeons in 1985 and certified in anatomical and forensic pathology by the American Board of Pathologists in 1986. He also served as a clinical professor at the University of Alberta.

He explained that "pathology" is:

"A. ...in its simplest terms, is the study of disease, what makes people ill, why do they react the way they do to illness, why do people die? In its broadest terms, that's what pathology is,..."<sup>311</sup>

He gave a useful description of the role of pathologists in Canada:

"A. ...An anatomic pathologist generally works, or most commonly works in a hospital setting and it's their role when a person has say a tumour removed during the surgery, or any type of surgery where tissue is removed or a biopsy taken. An anatomic pathologist is the person who would look at that tissue both with the naked eye and under a microscope, and say what type of growth that is, and most importantly whether the growth is benign and probably won't be a future problem to the person, or whether it's cancer. That is the type of pathology that I pursued, but then I went further, and I sub-specialized in a branch of pathology that we refer to as forensic pathology which is, in a sense, the bringing together of medicine with the law.

As a forensic pathologist it is my role to assist the law in a courtroom setting with understanding medical information. But more importantly, what forensic pathology is, it's the investigation of unexplained natural deaths and all violent deaths. So that an important part of the practice of forensic pathology is the ability to interpret injury....<sup>"312</sup>

He subsequently obtained a fellowship in forensic pathology in Dallas, Texas. Forensic pathology is recognized as a sub-specialty in the United States, but not in Canada.

He was asked to comment on the coroner's system in Saskatchewan and to contrast it with that in Alberta and those provinces that use a Medical Examiner. His commentary deserves repetition:

<sup>&</sup>lt;sup>310</sup> Evidence of Dr. Graeme Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1153-1289

<sup>&</sup>lt;sup>311</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1156

<sup>&</sup>lt;sup>312</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1157-1158

"A. ...The medical examiner system is a system that separates what I'll call the investigative side of death investigation from what I'll refer to as the inquisitional side of death investigation. And as I contrast it with the coroner system, the meaning of that will become clearer. In the medical examiner system a physician is responsible for overseeing the investigation of a death, and in Alberta the Act that we work under is The Fatality Inquiries Act passed in 1977. There are 100 – approximately 180 part-time, fee-for-service medical examiners throughout the Province of Alberta. The vast majority of these individuals are family practitioners or family physicians. So when a death occurs in their community that is reportable as defined in The Fatality Inquiries Act then they are charged with overseeing the investigation. Now, it's very important for Mr. Commissioner to understand that these individuals are not pathologists. They are family practitioners, some internists, but they are not pathologists. And they have a choice to make when they are investigating a death. They can review the history of the person, the scene findings, and then decide whether or not they need an autopsy to establish the cause and manner of death, or whether all they really need is what we call an external examination of the body. If they need an autopsy then they have the power or they will ask a pathologist to conduct the autopsy for them. And in most areas of Alberta the pathologists who are responsible for those autopsies are myself and three other full-time forensic pathologists who are employed in the capacity of the medical examiner's office. So we have two full-time forensic pathologist medical examiners in Edmonton of which I am, of course, one of those individuals; and we have two in Calgary. Now, of course, in the cities Edmonton and Calgary, we, the full-time people, are responsible for all of the cases or the vast majority of cases in those large centres. So I, as a medical examiner, will decide whether I need an external exam of the body or an autopsy. If I need an autopsy, I do it. In the rural area, the physician determines - the medical examiner determines whether or not they need simply an external exam or an autopsy." 313

He was asked to describe how a death investigation is conducted. He explained that:

"Death investigation is – constitutes three corners of a triangle, where we look at the history, the medical, psychiatric, social history of an individual. We look at the scene, what is the scene telling us about how this individual died?"<sup>314</sup>

He noted the five questions that a forensic pathologist report must attempt to answer: who died, where did they die, when did they die, why did they die, and how did they die.

He was asked if a Pathologist can determine the time of death and he made this observation:

"A. ... time of death is sometime between the time the person was last seen alive and when they're found dead; that's the best we can do. In spite of anything you've read or seen on TV, that's the best we can do. The cause of death, and what we call the manner of death, which is a statistical break down of deaths into five – in most jurisdictions five categories. Natural,

<sup>&</sup>lt;sup>313</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1161-1162 <sup>314</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1163

where the death is due to a natural disease; homicide, where death is at the hands of another, but that is not a legal term, it's a statistical term; suicide, which is the intentional death of an individual at their own hands; accidental, the unintentional death of an individual either at their own hands or at the hands of another; and undetermined, where after a complete investigation we're not sure what category the death properly belongs to."<sup>315</sup>

He then outlined how death investigation works in the Province of Alberta:

"A. ...Now, in Alberta we have a board of three people, it's called the Fatality Review Board. It is constituted by a lawyer, a physician, and a layperson who will review some, certainly not all, but some of the files that are generated by the medical examiner's office and will – and recommend to the Minister of Justice which ones should go to what I will now call the inquisitional phase of death investigation. In Saskatchewan this would be referred to as the coroner's inquest."<sup>316</sup>

He observed in passing that coroners in Saskatchewan do not have to be physicians.

Dr. Dowling was asked how a pathologist arrives at the conclusion that a fatality was caused by hypothermia:

- "Q. Can you please explain how a pathologist would arrive at a determination of death due to hypothermia?
- A. Yes. Hypothermia or what I prefer to call cold exposure, Mr. Commissioner, is what we generally refer to as a diagnosis of exclusion, and it's one of those deaths that emphasizes the absolute importance of using that triangle of investigative findings, because at autopsy there's really not much to see. You can do the best autopsy in the world and really there's not much to see at the autopsy of an individual who's died of cold exposure. It's not like a gunshot wound where it's fairly obvious even to the untrained eye that there's a problem here, that there's a hole where there shouldn't be a hole. In cold exposure there is essentially nothing of great significance at autopsy. The most that one will generally see on examination of the body is some minor scrapes of the skin usually caused as the individual, as they get close to their time of death, is disoriented, often falling to the ground, and quite often the settling of the blood, what we call the lividity, will be a reddishpink in colour as opposed to the usual kind of purplish colour that we see, but even not that is an absolute."<sup>317</sup>

He was also asked how long it would take for a person to succumb to hypothermia and he said this:

"A. ...there are so many variables. What is the actual temperature? Is that temperature steady throughout? Is there a wind? What is the body size? Is

<sup>&</sup>lt;sup>315</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1164

<sup>&</sup>lt;sup>316</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1164-1165

<sup>&</sup>lt;sup>317</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1170-1171

this person a thin individual? Are they overweight? Are they obese? Are they properly clothed? Is their clothing wet?"<sup>318</sup>

He followed with this comment:

"A. Regrettably, alcohol consumption is one of the most significant contributory factors that we see in most cold exposure deaths."<sup>319</sup>

and:

"A. ...One of the things that alcohol does is it – it makes the skin flush, and by that I mean you tend to become a little bit red in colour as you drink alcohol, and that's simply because there's increased blood flow to the skin area. With that increased blood flow, of course, there is increased loss of body heat, and, of course, it's the loss of body heat that's the primary factor in so-called cold exposure or hypothermia deaths. So alcohol would seem to be a factor that way.

But I have – it's been years since I've read this literature or seen this presentation – I am aware that there is some body of evidence that suggests that alcohol may not be that significant with respect to loss of body heat. What I find alcohol's role to be, just in the cases that I've seen, is that it makes the individual more likely to do something that normally, if they were using their head, they wouldn't, and that is going out in minus 40, minus 30, minus 20 in their spring jacket. That's where the real role of alcohol seems to come into play.

- Q. Dr. Dowling, are you familiar with, I'm not sure what to call it, but that on occasion a person that has succumbed to cold exposure has disrobed to some degree?
- A. Yes. Mr. Commissioner, that's something that we refer to as paradoxical undressing. It is not uncommon for, at the scene of a cold exposure death to see the clothing partially removed or, on occasion, completely removed and scattered usually in a zigzagging pathway in the snow near the body."<sup>320</sup>

He made the following further observation:

"A. ... It is thought, I don't know if it's proven, but it is thought that close to the time of the person's collapse into unconsciousness that they feel a sense of warmth to the point that they feel hot, and therefore start to remove their clothing. Now in reality they aren't hot. Their core body temperature is getting – is obviously at the point where they're about to lose consciousness and, if not found, will die, yet their sensation is of warmth, and that is why they will start to remove their clothing."<sup>321</sup>

<sup>&</sup>lt;sup>318</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1174-1175

<sup>&</sup>lt;sup>319</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1176

<sup>&</sup>lt;sup>320</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1177-1178

<sup>&</sup>lt;sup>321</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1178-1179

and:

- "Q. ...does the absence of removal of clothing have any indication or any impact on diagnosis of death by cold exposure?
- A. No, it wouldn't."<sup>322</sup>

In April of 2001, the body of Neil Stonechild was exhumed by the RCMP and Dr. Dowling performed the second autopsy. He produced an extensive Autopsy Report.<sup>323</sup> As a result of the passage of time, the information that Dr. Dowling was able to gather from the autopsy was limited. I refer particularly to the conclusions:

#### "CONCLUSIONS

This 17-year-old male was found dead, frozen in sub-zero temperatures, in an industrial area in the north end of Saskatoon on the afternoon of November 29, 1990. He was apparently last seen alive, by witnesses, during the late evening or early morning hours of November 24/25, 1990, in a police vehicle at an intersection in west Saskatoon.

Documentation of his whereabouts after this point in time was apparently lacking. It is alleged that witnesses saw blood on the face of the decedent when he was last seen alive.

A Coroner's autopsy was conducted on November 30, 1990. Two parallel linear scrapes (i.e. abrasions) were noted on the nose of the decedent, and additional small abrasions were found on the left cheek of his face, on his chest, and on his knees. No other injuries or natural disease processes were identified at the initial autopsy to account for death. Postmortem toxicology revealed the presence of a blood alcohol concentration of 150 mg/100 ml (as compared to the legally defined intoxicating level of alcohol, for the purpose of operating a motor vehicle, of 80 mg/100 ml), with no other intoxicating drugs identified. The cause of death was attributed to hypothermia (i.e. cold exposure).

A further investigation into the circumstances surrounding this individual's death was commenced by the RCMP in Saskatchewan in the year 2000. Review of photographs, taken during the course of the initial autopsy, revealed that the parallel linear abrasions noted on the nose could have been produced by a pair of handcuffs, and also noted the presence of a skin impression on the back of the right wrist, which could have been produced by handcuffs. In light of this, and other concerns raised by the investigation, an exhumation of the body was ordered by the Chief Coroner of the province of Saskatchewan. Re-examination of the body was performed at the Office of the Chief Medical Examiner in Edmonton on April 24, 2001.

The exhumed body exhibited an advanced degree of postmortem skin darkening and drying (i.e. desiccation), together with post mortem loss of skin and soft tissues primarily over the thighs of both legs. The abrasions identified at the initial

<sup>&</sup>lt;sup>322</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1179

<sup>&</sup>lt;sup>323</sup> Autopsy Report of Dr. Dowling, dated July 3, 2001, Inquiry exhibit P-31, reproduced in this Report as Appendix "Q"

autopsy could not be seen at the exhumation examination, as a result of these postmortem changes. No injuries were identified that had not been described at the initial autopsy examination. In particular, there was no visible evidence of any fracture of the cartilage or bone of the nose. Complete body x-rays failed to reveal the presence of any other bony fractures. No natural disease processes were identified upon re-examination of the relatively well preserved organs, contained within a bag with some embalming fluid in the trunk cavity, to account for death. Likewise, re-examination of the histology slides from the original autopsy failed to disclose any injury or natural disease process to account for death.

Although the scope of this examination was limited by the degree of postmortem change as outlined above, there was no evidence of any injury or other natural disease process to refute the original autopsy findings and conclusions."<sup>324</sup>

As a result of the advanced post-mortem desiccation of skin and tissue, the second autopsy did not assist in answering many questions about the injury to the nose and the marks on the wrist of Stonechild, except that there were no related bone fractures. Dr. Dowling, however, did provide the RCMP with his views on these injuries based upon his review of the photographs from the scene<sup>325</sup> and the autopsy photographs.<sup>326</sup> The RCMP initially put 5 questions to Dr. Dowling regarding the apparent injuries present on Mr. Stonechild. The questions were as follows:

- "1. Are they more likely to be the result of an assault or from falling during his apparently disoriented state due to the effects of hypothermia?
- 2. Are the wounds on the nose more consistent with a blow or an incised wound.
- 3. Are the marks on the face more consistent with a blow or a cutting force?
- 4. Can you offer any suggestion as to the origin of the mark on Stonechild's right wrist shown in Photo 42?
- 5. Is the blackening of the lips due to injury or to freezing?" 327

Upon reviewing the photographs and the original autopsy report, Dr. Dowling provided the RCMP with a written report.<sup>328</sup> He was questioned extensively about the views he expressed in this report.

He confirmed that the injuries to the face were superficial and were caused by some form of blunt trauma as opposed to a sharp injury. He defined a blunt object as anything that is not sharp such as the edge of a piece of paper, a piece of broken glass or the sharp edge of a razor blade. He added to that the comment that as a Forensic Pathologist he could not tell whether a blunt injury was caused by a blow as opposed to a fall, but that the injuries in any event were minor.

<sup>&</sup>lt;sup>324</sup> Autopsy Report of Dr. Graeme Dowling, Inquiry exhibit P-31, July 3, 2001: 7-8

<sup>325</sup> Stonechild Death Scene Photographs, Inquiry exhibit P-29

<sup>&</sup>lt;sup>326</sup> Stonechild Post-Mortem Photographs, Inquiry exhibit P-28

 $<sup>^{\</sup>rm 327}$  RCMP letter to Dr. Dowling dated March 27, 2000, Inquiry exhibit P-25

<sup>&</sup>lt;sup>328</sup> Dowling letter to RCMP dated April 14, 2000, Inquiry exhibit P-30

In his report, Dr. Dowling offered that the scene photographs<sup>329</sup> appear to show hard crusty snow, and that Stonechild's facial injuries could have been caused by falling on frozen snow. He conceded that he did not know what snow conditions were like where Mr. Stonechild was found. In the final analysis he said:

"A. ...I cannot rule out that these were assaultive injuries," 330

And then this question and answer:

- "Q. Bearing in mind the comments you've made about the use of the word "consistent" by a pathologist, in your opinion are the injuries also consistent with being inflicted by another person with a blunt object?
- A. They could very well be, yes."331

He was then asked about whether the facial injuries might have been caused by someone striking Neil Stonechild with handcuffs, and I refer to the following questions and answers:

- "Q. Okay. If this were caused by someone striking him with handcuffs, you would expect to see bruising and other injuries associated with the particular scratches?
- A. Usually there would be bruising, but it is not always present.
- Q. Okay. But, again, it would be highly unlikely that or unlikely, let's put it that way, that minor injuries like that could be caused by a strike from something like a hard object like a handcuff?
- A. I would not go that far. I think it is possible.
- Q. But not likely?
- A. I can't characterize it." 332

A number of questions were put to Dr. Dowling as to whether the marks on the deceased's face would require the application of substantial pressure. Counsel for the Saskatoon City Police Association introduced as an exhibit, and placed before Dr. Dowling, a post-mortem picture of Stonechild's face with a pair of handcuffs superimposed.<sup>333</sup> I quote the following exchange between Counsel and Dr. Dowling:

- "Q. The only way we could make a substantial impression such as we saw in photo number 41 is if this had pressed a good distance into the person's face?
- A. Well, I think the one thing Mr. Commissioner has to consider is that the nose is flexible.
- Q. M'hm.

<sup>&</sup>lt;sup>329</sup> Stonechild Death Scene Photographs, Inquiry exhibit P-29. Dowling referred particularly to photograph number 32

<sup>&</sup>lt;sup>330</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1213

<sup>&</sup>lt;sup>331</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1213

<sup>332</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1237-1238

<sup>&</sup>lt;sup>333</sup> Post-Mortem Photograph of Stonechild face with handcuff superimposed, Inquiry exhibit P-33

- A. So even though that surface is rounded there could be enough give or flexibility in the nose that more of it would be exposed to the edges than you might initially think.
- Q. Okay, but if we look at it just the way it is we'd expect an exposure, perhaps a quarter of an inch or something like that? Just with a direct contact?
- A. At initial contact. It could extend longer as the nose flattens if force is applied.
- Q. Okay. But the injuries to Mr. Stonechild's nose is considerably longer than just a minor portion, is that right?
- A. There is no ruler in place there, but if I was to guesstimate, the lower injury appears like it could be close to 5/8 to 3/4 of an inch, and the upper one closer to a 1/2 inch.
- Q. Okay. Would that take a considerable force to drive a pair of handcuffs into a person's face and cause that length of an injury?
- A. Given that it's metal I'm not sure how much force it would take.
- Q. Would one expect, though, to see the cartilage damaged underneath?
- A. Again -
- THE COMMISSIONER: Have you had very much experience with the impact of handcuffs?
- A. Of handcuffs, no, Mr. Commissioner, no.
- Q. Well, Mr. Commissioner, I think this gentleman is by far better qualified than the gentleman who produced that picture.
- THE COMMISSIONER: I don't know anything about that.
- Q. Okay. Now looking at the cuffs themselves, I think the way they were put in that picture is they are open and, if I'm correct, it looks like they're placed with the open portion towards the face, is that correct?
- A. You may be right, but I whether it's my glasses or what, I'm not absolutely certain.
- Q. Now if that's the case, that causes a major problem, of course, because you can't touch the nose with the handcuffs open that way.
- A. In the way that you're suggesting and showing me with your right hand, no, you would – I would expect to see, in addition to the nose injury, injuries produced by the –
- Q. From either side.
- A. either side of the semi-circle that the cuffs form.
- Q. Okay. The fact that I wonder if we could go back to photo 41, please? Looking at the top of the upper injury, does it not seem also if something like a handcuff is causing that, it should also be causing some injury to the cheek?

- A. You wouldn't necessarily see that, given the curvature of the handcuffs that you've showed me.
- Q. Okay. Is it possible, likely or hard to say?
- A. It's hard to say.
- Q. Okay. The fact that one of the lines is longer than the other, is that not or considerably longer than the other, I think, towards twice as long, is that not inconsistent with something like a punch or something similar, like with a handcuff or striking someone with a cuff?
- A. No, it isn't. The whole difficulty of human skin and so-called pattern injury is that the patterns never show up exactly as you might expect them. There's a variability there that can only be accounted for by the – I'll call it the elasticity of human tissue. The patterns are never perfect, so it – I wouldn't put a great deal of stalk on the difference in lengths of those injuries personally.
- Q. Okay. Now looking at it generally, would it be fair to say the handcuff theory, if one wants to call it that, although possible, is really quite speculative?
- A. I think all I can say is that we may have a patterned injury. It's possible that it's grass, it's possible that it's crusted snow, it's possible that it's a handcuff. And as a forensic pathologist it would be improper for me to say it is or it isn't this or that."<sup>334</sup>

Counsel for the Stonechild family also questioned Dr. Dowling about the possibility that handcuffs could have caused the injury to the nose. I refer to the following passage of the evidence:

- "Q. ...I believe the maneuver he used was using the handcuffs as knuckle dusters? You're familiar with that term?
- A. I'm familiar with the concept, yes.
- Q. And that's one possible explanation for those injuries, I believe you agreed?
- A. Yes.
- Q. Might it also be equally explainable that if an individual was handcuffed in that fashion, to create the – what I'm going to suggest to you are ligature marks that are depicted in the other photographs, that in some kind of defensive maneuver might raise their hands and either as a defensive movement have the handcuffs pushed into his face?
- A. If the handcuffs contacted the skin with enough force, then that is a possible explanation."<sup>335</sup>

Dr. Dowling was also asked about the marks on the deceased's right wrist apparent from the post-mortem photographs. I quote:

<sup>334</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1239-1243
<sup>335</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1254

- "Q. Okay. And if that had been caused by handcuffs, would you expect there would be different types of marks than what we see there?
- A. Not necessarily. I have seen there are not that many cases that I seen that involve the use of handcuffs, in fact they're quite rare, but I have seen, apart from handcuffs, ligatures, ropes, et cetera, that will leave that type of skin impression without actually injuring the skin itself."<sup>336</sup>

He went on to state that, though it would be unusual in his experience, it was possible that the impression of the wrist of Stonechild could have been made by a handcuff.

Dr. Dowling prudently maintained the position throughout his testimony that it was not possible for a Forensic Pathologist to determine based upon the photographs what object or objects caused the marks and injuries suffered by Stonechild. The furthest he was prepared to venture was to offer his opinion as to the possible causes of the injuries. Based upon his examination of the photographs, the possibilities included crusty snow, twigs, and handcuffs. He did, however, acknowledge that his opinion of what might have caused the injuries would also be influenced by factors other than an examination of the photographed injuries:

- "Q. And so if I put to you as a hypothetical that this person who we're seeing in the photographs right now on the screen was last seen in police custody before he was found dead, would that be an important fact for you?
- A. It's it's an important observation, yes.
- Q. Okay. And would it be helpful in this context to the questions I've been asking you if you knew that as part of a hypothetical basis?
- A. It's only important insofar as understanding the circumstances surrounding the death.
- Q. And then when you add to the hypothetical that we've got what could be consistent with handcuff markings on that person's hands, as well as the apparent cuff marks over his face, that may add to your information base as well, in terms of coming to probabilities?
- A. Yes." 337

#### Dr. Emma Lew<sup>338</sup>

Dr. Emma Lew is a Forensic Pathologist attached to the Medical Examiner's office of Dade County, Miami, Florida, and has held that position since 1992. She was born in Saskatoon and attended the University of Saskatchewan and served her internship at St. Paul's Hospital. She completed her residency in anatomical pathology at the University of British Columbia and at the University of Saskatchewan and obtained a forensic pathology fellowship from the Dade County Medical Examiner's office from 1991 to 1992. She is also an Assistant Clinical Professor of Pathology at the University of Miami School of Medicine. She has published a number of articles and lectured.

<sup>&</sup>lt;sup>336</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1233

<sup>&</sup>lt;sup>337</sup> Evidence of Dr. Dowling, Inquiry transcript, vol. 7 (September 17, 2003): 1285

<sup>&</sup>lt;sup>338</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8120-8331

Commission Counsel had not intended to call Dr. Lew but was strongly urged to do so by Counsel for the Saskatoon Police Service and others. As a result she appeared before the Inquiry at its conclusion.

Commission Counsel posed the following questions to her:

"MR. HESJE: Mr. Commissioner, again, I've taken somewhat of a short view – or recitation of the qualifications of Dr. Lew. I propose to ask her opinion based on a review of certain photographs on the following: (a) the most likely cause of injuries to Neil Stonechild's nose and cause of the imprints to the right wrist; and, secondly, the timing of such injuries and imprints in relation to death. If there are questions with respect to her qualifications or opinions."<sup>339</sup>

She was cross-examined by Mr. Halyk as to her qualifications with respect to the origin of certain injuries. I refer to the following exchange between Counsel and Dr. Lew:

- "Q. ...I don't see anything in the materials that have been provided that you are an expert in connecting certain injuries to a certain – caused by a certain object or objects. Have you published anything in that area?
- A. Although I may not have published articles -
- Q. No, just the first question -
- A. on the topic –
- Q. have you published anything in that area?
- A. I don't remember that I have.
- Q. No. Okay. So and having not published articles in that area, can you tell us if you have done specific studies with respect to that issue?
- A. I have not done specific studies.
- Q. Have you conducted any specific experiments in that regard in respect to that issue?
- A. I have not conducted experiments.
- Q. And, in fact, you made some comment at the end of something that I saw about that pseudoscience, that sometimes an observation is better, or something to that effect? Do you remember what I'm referring to?
- A. I know what you're referring to."
  - •••

. . .

"A. With specific reference to your question, what I said was, "Physical evidence and common sense prevail over pseudoscience."

<sup>339</sup> Evidence of Dr. Emma Lew, Inquiry transript, vol. 42 (March 17, 2004): 8122

- Q. And the best the best you can do for us in trying to assist us, and this is not a criticism, is to take a look and take your best guess as to what may have caused the injuries that we see on the body of Neil Stonechild?
- A. Yes, based on photographs.
- Q. Yeah, and what you what you plan to do is give us your best guess.
- A. My best educated guess.
  - ...

. . .

- A. I was going to say that although I may not have conducted experiments or published on those specifics, I do have over 13 years of experience looking at real dead bodies with those very injuries.
- Q. Okay. And can you elaborate on that, what sort of injuries, what sort of causes of death are we talking about?
- A. I have examined bodies with all sorts of injuries and all sorts of mechanisms of death, but I suppose in this particular context it would be abrasions as were seen on the nose of Neil Stonechild.
- Q. When it comes to your duties as a pathologist, perhaps in your capacity as with Miami-Dade County, can you tell us basically what your duties are in that position?
- A. My duties include the investigation of death, which, in turn, includes the attendance at scenes of violent and suspicious deaths, the performance of autopsies, testimony in court and in depositions, and in teaching various groups of people from law students and medical students and paramedics to actually doctors and lawyers and law enforcement.
- Q. Okay. When it comes to the application of medical science, would it be fair to say that there is generally one group or groups that are involved in research and publication, other groups that are involved in the practical application?
- A. Yes. We we at the Medical Examiner's Department have have a job to do, and that is to determine the cause and manner of death. We really do not have much time for experimentation and research."<sup>340</sup>

Dr. Lew conceded that she did not "have much experience with frozen bodies"<sup>341</sup>, and that her observations of deceased persons who are the subject of police investigations in Florida where the weather is extremely warm, would be quite different from those where the body was frozen. She confirmed that she is frequently asked to express an opinion as to the possible causes of wounds in her practice.

<sup>&</sup>lt;sup>340</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8123-8130

<sup>&</sup>lt;sup>341</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8139

She confirmed that she had seen photographs provided of Neil Stonechild, but did not recall reading any of the reports. She examined the photographs of the marks on his face and hands to provide an opinion as to the possible causes of the wounds. She was asked under cross-examination how long she inspected the photographs before arriving at an opinion on the matter:

- "Q. Well, I I thought that you had agreed to that this morning, but in any event how long did you see those photographs for when you came to your conclusion?
- A. You mean how long –
- Q. Yeah, how long did you look at them –
- A. did it take to look at them? Well, a few minutes.
- Q. before you have that opinion? A few minutes.
- A. Perhaps a few minutes. It wasn't hours, I don't believe." 342 (Emphasis added)

She confirmed, also, that arrangements were made by the Saskatoon Police Service to have the photographs<sup>343</sup> enhanced at the University of Saskatchewan to see if she could form a better opinion as to the nature of the marks.

Dr. Lew described the two abrasions on Neil Stonechild's face; and confirmed that they were straight and parallel. In her opinion, the scene photographs of the nose injury, rather than the autopsy photographs, more accurately depict how this injury would have looked at the time of death, because the frozen body had likely not yet undergone post-mortem changes that would alter the appearance of the injury.

Dr. Lew confirmed that a handcuff may cause an abrasion to the skin. I refer to her answer:

"A. It depends on the mechanism of that injury. If you take a handcuff and scrape it hard across the skin of the nose you can cause an abrasion. That doesn't necessarily break cartilage or bone. It will just tear away the superficial layers of skin, leaving you with a scrape of the skin or an abrasion."<sup>344</sup>

However, she stated that they were not, in her opinion, caused by handcuffs, but she did not know how the injuries originated. She was then asked this question:

- "Q. Okay. And in looking at photographs that were available to you of the scene, did that assist you at all?
- A. Yes. At the scene Mr. Stonechild's body was found face down. His face was into a I guess a clump of stems and and grasses which would be very hard at that time that the body was found because everything would be frozen, all vegetation would be frozen. The stems and pieces of grass were sticking upright, and if Mr. Stonechild were to fall face down onto that clump of vegetation he could very well have sustained the injuries on his face from those pieces of vegetation.

<sup>342</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8258
<sup>343</sup> Death Scene and Post-Mortem Photographs enhanced by University of Saskatchewan, Inquiry exhibit P-188
<sup>344</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8190-8191

- Q. Now, you've indicated that you did not consider the abrasions to be consistent with handcuffs. Can you expand on your reasons for that opinion?
- A. Yes. The edges of the bracelet of a handcuff are relatively smooth. There is one area on the interlocking part of the handcuff where there are teeth. Those edges are jagged. However, the spacing between the abrasions on the nose and the spacing between the the teeth on that particular portion of the handcuff are not the same. And if you were to look anywhere else on the pair of handcuffs, it is not possible for handcuffs to produce those line-like, fairly superficial but fairly thin and straight line-like scrapes."
- "A. ...An abrasion of this sort is made by a relatively sharp edge. The blunt edge of the metal bracelet will not cause an abrasion. Sure, the bracelet of a handcuff is very capable of causing other injuries, but those injuries would be more blunt-force type.

In other words, if you were struck with any other part of the handcuff except for those teeth, and struck with enough force, you would get a bruise, you could get a cut or what we call a laceration, which is a tear of the skin, and with enough force you can break the nose. But, as I said before, all other parts of the handcuff are smooth apart from these little teeth which are capable of causing the scrapes or abrasions."<sup>345</sup>

Lew testified that a fall into vegetation was more likely the cause of the nose injury. There was a great deal of discussion about the marks to Mr. Stonechild's face being caused by frozen vegetation. Dr. Lew was asked:

- "Q. Okay. Or if someone who had these handcuffs in their hand and they were using them as brass knuckles and had somebody's nose like this and went like that, then you'd have those kind of marks being made as well?
- A. Yes, you can have that pattern, yes.
- Q. Okay. Now the suggestion is made that those marks were made by vegetation. And I guess the first cautionary question that rises in my mind, at least, is the fact that they are parallel?
- A. Yes, they are.
- Q. If we have a look at the vegetation, and if you have in front of you photograph 15 of the eight-and-a-half-by-elevens?
- A. Yes.
- Q. That is a photograph of, essentially, the pocket that Mr. Stonechild's face rested in. There's virtually no snow at the bottom of that pocket and you see quite an array of vegetation, is that true.
- A. Yes.
  - ...

<sup>345</sup> Evidence of Dr. Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8161-8163

- Q. And certainly you and I have a better vantage point looking at this photograph than the screen there. But we don't need to, I suppose, be too precise about saying that the vegetation occurs several inches below the surface of the snow, is that fair enough?
- A. It looks like it, yes.
  - ...
- Q. Okay. And if I was to suggest to you that there was really no evidence of any snowfall on the back of the body when it was found, so that we don't have that indication that there was that kind of snow – snowfall after the body came to rest there. That being removed, we do have the fact that the face would have to travel through several inches of snow before it came to rest in that spot?
- A. Yes, it would travel several inches before reaching the ground, yes."<sup>346</sup>
- "Q. No, and and and in looking at the photographs, you obviously can't see any blades of grass in the photographs that would have caused that damage, like there weren't any serious twigs or trees in that area, correct?
- A. Well, we are working from photographs and the orientation of the grasses and stems were likely disturbed by the body falling down on to it.
- Q. Yeah, but but, again, there's there's you can see the photos as well as I can and we can put them up on the board again, but there's absolutely no indication of any significant pieces of wood or twigs or tree that might cause those cuts. All there is, is grass, correct?
- A. Well, in the scene photographs there are areas in the terrain where there are thicker pieces of vegetation that look like stems.
- Q. And and how many cases have you seen where stems, which are grass of a type, stems cause that kind of damage to somebody's face? Have you any cases like that?
- A. I may have seen, yes." 347

Dr. Lew, however, backtracked somewhat from this position later under cross-examination:

- "Q. It could. Thank you. Now, do you know Dr. Michael McGee who's the also a forensic pathologist?
- A. No, I do not.
- Q. Do you know of him?
- A. I believe he may be the pathologist that had given a consult report on this case.
- Q. Sure. So you've heard of him or somebody has told you about him?

<sup>346</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8218-8220
 <sup>347</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8266-8267

- A. Yes.
- O. And and I'm told that he he doesn't believe the abrasions to the nose are consistent with being caused by twigs or branches. He indicates they are too straight and too parallel. He indicates that they're most probably caused by a formed edge. He described a formed edge as one that is prepared, created or machined such as a block of wood or a piece of metal. Now, if if we assumed that that's something that he said, could you possibly find your way clear to agreeing with him on that?
- A. Yes."348

Dr. Lew also commented that in her opinion, the injury to the nose occurred within minutes, rather than hours, before the death. Under re-examination, she stated that she could not rule out the injury occurring 30 minutes before death.

She also expressed the view that the mark on Stonechild's wrist was not consistent with handcuffs. She stated that the indentation appeared to contain striations inconsistent with a mark left by a smooth surface like a handcuff, and that she did not observe the double strands of a handcuff in the indentation. I quote from her testimony:

"A. ...That mark is an indentation. You can see that there's an indentation in the skin. That mark is patterned in that it is – goes across the hand, it is not just an imprint of something nonspecific. It looks like it's straight across the - back of the hand. It is also pale.

And by looking very carefully at the mark on the wrist I can see that it is not consistent with a handcuff. It has certain very fine details on that mark that indicated it is not from the smooth metal of a handcuff bracelet. Not only that, the mark varies in size from one side of the hand to the other. . . .

- A. Perhaps the best photographs would be 19, 20 and 21.
- Q. Mr. Stack, I wonder if you could put up start with photograph 19.
- A. ... Now, in this mark on the hand you can see here is the the wrist is right here. Here is the – the fleshy part of the thumb, and so you can see that the - that - you can see that the mark is between the wrist and really the fingers and the base of the thumb which is around here. So you can see clearly where it is on the hand. All you have to do is hold up your own hand and see the similarities. The width of the mark at this end or the thumb end is wider than the mark at this end, the little finger end, and in the photographs where I do have the benefit of some detail, I'm able to see subtle striations that go longitudinally or along the axis of the arm up and down, fine striations I'm able to make out that are approximately I believe in my report I described them as being three to four millimetres apart. But in addition to those striations within - or between those striations, I see other even more

<sup>348</sup> Evidence of Dr. Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8278-8279

fine – finer striations that are parallel with all these striations which are at right angles to the mark across the back of the hand, and those I estimated to be approximately one millimetre apart.

And looking at the handcuff you will not get an impression like that on the hand from a handcuff. A handcuff is very smooth, it will not have those striations, it will not have those fine striations in addition to the I guess the wider – more widely-spaced striations.

- A. ...And those if, again asked my opinion on the cause of that indentation, it is not consistent with a handcuff but it would be consistent with the the weave of the fabric of clothing such as from a cuff from a shirt or a jacket.
- Q. Now, you have had the opportunity of reviewing the scene photographs. You can take that one down, Mr. Stack. And you've indicated, of course, in commenting on the abrasions to the nose that that's part of, you know, one has to look at what the surrounding – what clues are yielded by the surrounding circumstances in those photographs. I assume the same applies with respect to the wrist, in particular the photographs would seem to indicate that Mr. Stonechild's hands are drawn within the cuffs of the coat. Do you agree, first of all, with that observation?
- A. Yes, I do.

. . .

- Q. Now, was there anything then that you're able to observe based on, admittedly, the limited information you have as to the scene, the photographs there, that would support your theory that it was caused by it could have been caused by the cuff of a shirt or something like that? In other words, is there anything that you're seeing that that supports that conclusion?
- A. Yes, exactly what you have mentioned, the fact that his hand was drawn inside the the cuff of the sleeve of his jacket. He was wearing other clothing as well. Had he been found with his hand outside the sleeve area, then you would have to find some other explanation for that indentation."<sup>349</sup>

I must observe that the above answer makes no sense. With his sleeves pulled down over his hands, the ribbed cuff would simply not have any bearing or effect on his wrist. Further, ribbed or elastic cuffs are not typically associated with lumber jackets; the clothing that Stonechild was wearing underneath his bomber jacket. This point was put to Dr. Lew by Counsel for the Stonechild family:

- "Q. Now, I think photograph number 8 indicates a number of things, one, that Neil's hands are well within the sleeves of his jacket.
- A. Yes, I agree."

...

- "Q. ...I think, concluding that his clothing, given that it would appear that the only thing that would possibly be around his wrist or wrist-to-hand area would be that soft cotton lumberjacket coat if we assume that the t-shirt is short-sleeved, and we've already established that the sleeves of his jacket are not anywhere are not capable of making those marks given given where they are. Is that is that fair?
- A. Let's put it this way. We are not able to correlate because we don't have photographs of the clothing or the clothing available to compare with.
- Q. Okay. So basically we're just not able to say for sure whether or not Mr. Stonechild's clothing made those marks on his wrist?
- A. We're not able to say which item of clothing made those marks, that is correct.
- Q. Or or in fact if if if any of his clothing did, given as we don't know what he's wearing here.
- A. That is correct."<sup>350</sup> (Emphasis added)

As Dr. Lew herself noted, the most that can be said is that:

"A. By looking at the photographs it does not appear that freezing and thawing has changed this indentation on the hand. The very act of freezing does not produce indentations; the very act of thawing does not produce indentations. **Something caused this indentation**."<sup>351</sup> (Emphasis added)

Counsel for the F.S.I.N. went further to suggest to Dr. Lew a possible scenario whereby handcuffs could cause such an indentation:

- "Q. Well, pretty close, wouldn't it? Now, I'm giving you a scenario as a hypothetical and I know that you want to be fair, witness. The hypothetical being that if Stonechild was resisting, an officer pulling him by the other cuff, in other words, it's not on the other hand –
- A. Right.
- Q. you would get that cuff mark in a very similar position to what's on the hand.
- A. Yes, if the cuff was loose enough to be down in that position, yes, there could be a mark.
- Q. Yes, and so I'm I'm asking you to visualize the possibility. Now, you see, you don't know what happened here, do you?
- A. No.
- Q. And I don't, okay, and the Commissioner is the only one who will know, but we don't know right now. So let me just put it to you this way: if he was in that police car and was resisting, the police will take one cuff off and get him out of the car and take the cuffs off.

<sup>350</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8248-8249 <sup>351</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8175

- A. Yes.
- Q. He's resisting going out because they know he's going to be thrown out in the middle of nowhere.
- A. Yes.
- Q. And he's pulling back and resisting.
- A. Yes.
- Q. If they're pulling -
- A. Yes.
- Q. on the cuff, you might well get the kind of mark that's shown on the wrist then.
- A. Yes, that's possible you would get some sort of a mark, yes.
- Q. Yes, and in that location.
- A. Yes."<sup>352</sup>

Later during cross-examination, she was asked:

- "Q. Okay. But, you see, the other thing that I'm thinking is if we have the posts in there that I hypothesized for you, I mean, you – you've got to have pressure going towards the front of the hand and that's going to cause the rubbing and would cause the markings too?
- A. It could." 353

Dr. Lew had also expressed the view that the wrist indentation was created after the death of Stonechild. She stated:

"This paleness indicates that the heart was not beating, there was no blood being sent to this area, and therefore it looks so consistent with other postmortem indentations that I have seen. Not only that, it looks very similar to indentations, other pale indentations on the abdomen which can be seen in some of the photographs. So there's an indentation on the wrist, there are indentations on the – on the abdomen that are postmortem."<sup>354</sup>

However, under re-examination Dr. Lew acknowledged that the ability to date such wounds is highly controversial:

- "Q. The dating or the timing, estimating the time of an injury in relation to death, is that a matter, to your knowledge, that is controversial among forensic pathologists? That is, by controversy I mean there may be differences of opinion?
- A. It is very much in controversy and again when you if you take a group of ten forensic pathologists they may give you ten different opinions.

- Q. Now, you're familiar with, at least in his professional manner, a Graham Dowling from Edmonton?
- A. Yes.
- Q. Dr. Graham Dowling? And he has testified at this inquiry and, in fairness, I just want to put to you what he said about the timing of the wound of the injury to the nose, and I want to read the question and answer to you, and I'm at page 1288 of the transcript. The question, and this was actually my questioning, "In your professional opinion then, based on the photographs, if a person is restricted to photographs, is it possible to make any useful analysis of the age of the wound?" His answer, "As in as in everything else, I would certainly be reluctant. I just don't think you can say very much. I could say in very general terms they appear quite they appear quote unquotes fresh as opposed to old, but fresh to me can mean anything from minutes to hours and...really that's the full extent of anything I can say." Now, I just want to I'm not sure you're saying much different than he is there, but do you disagree with that statement of Mr. Dowling?
- A. No, I do not disagree.
- Q. Dr. Dowling, sorry.
- A. No, I do not disagree, and as I said earlier you can line up ten forensic pathologists and you can get ten different answers."<sup>355</sup> (Emphasis added)

Dr. Lew also testified that "the Forensic Pathology community knows how notoriously difficult it is to age injuries."  $^{\rm 356}$ 

While I accept Dr. Lew is a very experienced Forensic Pathologist, I do not accept, based upon her own admission, that the field of Forensic Pathology has yet developed a reliable technique for the dating of injuries. As noted by Mr. Justice Sopinka in *R. v. Mohan:* 

"Expert evidence which advances a novel scientific theory or technique is subjected to special scrutiny to determine whether it meets a basic threshold of reliability."<sup>357</sup>

As a result of Dr. Lew's admission that one could have ten different opinions from ten different forensic pathologists about the date of an injury, I conclude that her evidence on this point is unreliable.

Having reviewed the evidence of Dr. Lew in detail, I am not convinced by her opinion that the cause of the injuries to Mr. Stonechild's face was the result of falling into brittle or frozen vegetation. The likelihood that the two abrasions, notwithstanding the fact they are simply characterized as breaks in the skin, would be caused fortuitously, by two unrelated, parallel objects, is extremely unlikely. The photographs of the death scene and of the vegetation at the scene do not support that conclusion. The more probable cause was a blunt object that contained parallel edges. Handcuffs fit that characterization much more closely than random strands of vegetation.

 <sup>&</sup>lt;sup>355</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8325-8327
 <sup>356</sup> Evidence of Dr. Emma Lew, Inquiry transcript, vol. 42 (March 17, 2004): 8280
 <sup>357</sup> [1994] 2 S.C.R. 9 at 25

Similarly, I had difficulty with Dr. Lew's characterization of the so-called "striations" on Neil Stonechild's wrists. The evidence established that he had his sleeves pulled down over his hands to keep them warm. If there was a cuff that might cause marks of some sort it would not be in relation to his wrist. I refer, of course, to the cuffs that would be on his jacket. I am satisfied that the lumber jacket that he wore likely had button cuffs and would not have contained cuffs of the sort one would see on a windbreaker. I shared the same experience as other observers at the Inquiry: I could not see any striations of the sort described by Dr. Lew. If I stood alone in this failure I might feel differently. I would respectfully suggest that Dr. Lew was enhancing her opinion, because of the desire to support her opinion. The enhancement was not justified.

Overall I did not find the evidence of Dr. Lew very helpful.

I pause to note that at the conclusion of the Inquiry, I was provided with a copy of a proposal prepared by Dr. Evan Matshes and Dr. Emma Lew. It is entitled "Competent Death Investigation: A plan for change in Saskatchewan". I have had an opportunity to review the recommendations briefly but it would not be appropriate in the circumstances for me to comment on them as they are quite comprehensive and involve a number of important questions about infrastructure, financial resources, and the like, and particularly the question of recruitment of appropriate personnel.

A well respected Saskatchewan forensic pathologist, Dr. Harry Emson, has provided a critique of the report in a letter to the Saskatoon StarPhoenix published June 18th, 2004. That letter has been added to the Inquiry file for the information of any person interested in the discussion about the possible establishment of a Medical Examiner System.

### 9 | The Expert Evidence – Photogrammetric Evidence

#### **Gary Robertson**<sup>358</sup>

Gary Robertson was one of the most controversial witnesses at the Inquiry. He is an expert in photogrammetry.

Photogrammetry is described as "the science and engineering of taking measurements from imaging"<sup>359</sup>, whether electromagnetic media or photographic images. Photogrammetry is utilized in a number of different fields as a measurement tool. It has been used by the Transportation Safety Board to assist in crash investigations. It has also been used by a number of police agencies in the United States and in Canada as a forensic identification resource. Photogrammetry has also been used as a tool to assist in the measurement of human tissue imprints.

Mr. Robertson's education was outlined in some detail. He received his Cartography Technician (Photogrammetry) Diploma from Algonquin College of Applied Arts and Technology in 1973. He has conducted research for the National Research Council and was employed by the Government of Canada from 1976 to 1980 doing close range photogrammetry at historic buildings and other structures. He is a member of the American Society in Photogrammetry and Remote Sensing. He has authored a number of articles on the subject and has given a number of courses to police officers and others in his specialty.

<sup>358</sup> Evidence of Gary Robertson, Inquiry transcript, vol. 21-23 (October 20-22, 2003): 3958-4428
<sup>359</sup> Evidence of Gary Robertson, Inquiry transcript, vol. 21 (October 20, 2003): 3963