



MAMMOTH TRACKS

NEWSLETTER

Fall 2004

Editorial Members

- Bruce Bolton
- Susan Berry
- Jim Burns
- Todd Crawshaw
- Karen Mackie
- Marilyn Nelson
- Barbara London



Spotlight on...

A Century Past: Refined Living in the New Alberta

To celebrate Edmonton's centenary, paintings, ceramics and *objets d'art* collected at the turn of the 20th century by one of Edmonton's leading citizens, John A. McDougall, will be showcased in the Main Floor Exhibition Hall until September 30, 2005. It's lavish opulence in early Edmonton!

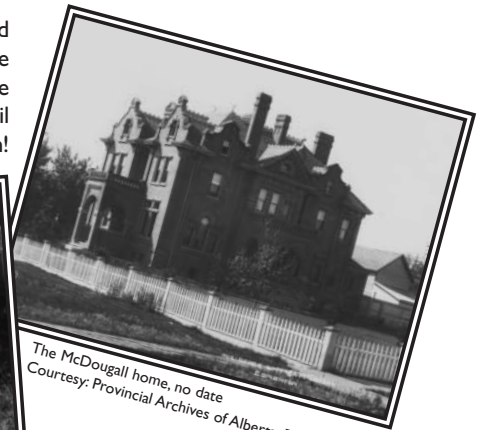
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Provincial Museum of Alberta
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For information call 453-9103

More Info...

The Friends of the Provincial
Museum of Alberta Society



The McDougall Family, 1897
Courtesy: John McDougall



The McDougall home, no date
Courtesy: Provincial Archives of Alberta, B4520

Director's Message

Summer means heat, vacations, shared family experiences and, in Alberta, the occasional violent storm! The Museum is the perfect indoor escape when it's too hot or wet outside. Don't miss the spectacular Museum grounds and Government House gardens, which are at their best in late summer. The Museum has recently made the "visitor experience" a central question in gallery and exhibition planning. That Museums should reflect on the needs of the visitor may seem obvious but historically it did not always happen.

Museums and art galleries were judged by the quality of their collections on display. Great Museums had great stuff. Most great Museums also did not charge admission. Many staff understood the important work of the Museum was behind the scenes—the preservation and documentation of our heritage. Whether or not the public visited in large numbers was incidental. Ironically, when admission to the Museum was free and the exhibits much less compelling, we had a pretty large audience.

Today, the Museum has to work to attract "customers"—in part because there is an admission fee but mostly because there is an abundance of cultural attractions and entertainment to choose from. The result for you is a diversity of galleries, exhibitions, programs and services designed to appeal to a diverse audience. Whether your fancy is the kids' favourites *Bug Room* and *Dinosaurs*, the natural beauty of *Wild Alberta*, the challenge of the ethical questions in *The Gee!* in *Genome* or walking back into turn-of-the-century (1900) Edmonton in *A Century Past*, the Museum has something to appeal to every taste.

Speaking of taste, there is a display on "salt" that you will miss unless you stop outside the Museum Café. Too, if you haven't noticed lately, we have added to the display of bronzes by Bob Scriver featured in our lobby. We hope to build a major exhibition around these bronzes in a year or so, but for now enjoy the sneak preview.

W. Bruce McGillivray
Director

Spotlight on...

The GEEE! in Genome

What would it be like to live to the age of 150 years? If you could have your children “made-to-measure”, would you? Could stem cell research be the key to finding the cures for diseases like Alzheimer’s and Multiple Sclerosis? These and other provocative considerations are part of *The Geee! in Genome*, Canada’s first exhibition on genomics – the study of genes and their functions. The Provincial Museum is pleased to host this national travelling exhibition until October 11, 2004.

As you enter the exhibition, images and specimens that highlight the extraordinary diversity of life on earth will tantalize you. Throughout these images, you will see the letters A, T, C and G – the chemical bases of DNA. The message is simple, yet profound: with only four letters, or notes, nature has created all symphonies of life.



On your journey through the exhibition, you will:

- hear a musical analogy, woven throughout the exhibition to help explain genomics,
- build a DNA model,
- race against a cell to build a protein,
- scan foods containing genetically modified organisms (GMOs) in a grocery store,
- solve wildlife crimes and mysteries as a DNA detective,
- analyze the traits in their own family tree, and
- see the film ***How to Build a Human: Predictor*** (35 minutes)

Our full-time gallery interpreters will provide daily activities at 11:30 am and 1:30 pm. Join them to extract your own DNA, discover your “DNA alias”, learn about your dominant and recessive traits, and participate in interactive presentations on topics such as heredity and GMOs!

James Lambert



A Century Past: Refined Living in the New Alberta

Collecting is a personal activity. Whether it be salt shakers, first editions, sea shells or Depression glass, collecting things is, for most people, a passion. The Provincial Museum of Alberta’s exhibition *A Century Past: Refined Living in the New Alberta* showcases fine and decorative arts collected at the turn of the 20th century by one of Edmonton’s leading citizens, John A. McDougall. The McDougall collection of paintings, ceramics and *objets d’art* reflects the tastes of a well-travelled and successful businessman.

The collection also tells the story of a self-made man, whose vast fortune enabled him to acquire art treasures from abroad. These would soon fill his mansion to give him a sense of personal pride and accomplishment. The three decades prior to the First World War is known as North America’s Gilded Age—a period of conspicuous consumption for ambitious entrepreneurs who had seized economic opportunities. Although not educated in the arts, John A. knew what he liked. Consequently, the collection is an eclectic testament to his wealth and refinement.

Barbara London

On the Go...

Of Heat, Humidity and Mosquitoes - Heading into the Field in Summer

In the last *Mammoth Tracks* Newsletter, I described the Quaternary Environments program's winter coring expedition to central Saskatchewan. Summer fieldwork is also an essential and complementary component of our research. So in early July, we headed back to central Saskatchewan, to undertake additional fieldwork to help with the interpretation of the sediment cores we collected last winter.

Instead of cold and snow, on this trip we were dodging thunderstorms and swatting mosquitoes! The week we chose for fieldwork encompassed some of the strangest weather I can remember – the torrential downpour in Edmonton, a tornado near Battleford, and a deluge in Peterborough. Perhaps this was an appropriate background for a project that has as one focus the investigation of past climates and environments!

Our main objective for this fieldwork was to collect small samples of organic material, or duff, from the soil surface at a series of locations forming a transect from the boreal forest, northeast of Prince Albert, to the grasslands, south of Humboldt. Many plants produce huge amounts of pollen when they flower in the spring and this is spread across the landscape by wind. The amount of pollen produced by some plants is truly mind-boggling. It has been estimated that one catkin of European birch produces 6 million pollen grains and a small 10-year-old pine tree can produce 350 million pollen grains! Much of this pollen is not used for reproduction but eventually falls to the ground, becoming incorporated into the soil. By sampling the soil surface and extracting and identifying the pollen types, we can get a good idea of what plants are growing in the surrounding area. A sample from the grassland area, for instance, will tell us what proportion of various pollen types characterize an open landscape. Conversely, samples collected in the boreal forest will provide us with a pollen signature for forest. These signatures can be used to get a better understanding of past vegetation, as it is recorded in the sediment cores.



A cattail (*Typha latifolia*) plant in flower produces a yellow cloud of pollen when shaken by the wind (or a researcher!) Most of this pollen will fall to the ground and become incorporated in the mud of the surrounding wetland. (Photo: ABB and J. D. Gillespie, 2004).

The fieldwork is the fun part! We collected 64 surface samples during this trip and travelled more than 2500 km. During the next few months, these samples will be processed in the laboratory to extract the pollen. Then we will have to spend long hours at the microscope to identify and count the various pollen types. Laboratory work is interesting too, in its own way. While working in the laboratory, we will think back to hot summer days in the field, the smell of sunscreen and bug-repellent, the scent of flowering crops, the vivid blue of flax and brilliant yellow of canola, and the looming darkness of summer thunderstorms on the horizon.

This fieldwork is part of the SCAPE project, funded by the Social Sciences and Humanities Research Council of Canada (SSHRC). More information about the SCAPE project can be found at <http://scape.brandonu.ca/> and details of the investigation of past environments are given at <http://www.scirpus.ca/escape/escape.shtml>

by Dr. Alwynne Beaudoin
Curator, Quaternary Environments

What is this?

Fossilized Pemmican?

Ahh, Spring... it calls to mind the bright green leaves of budding aspen, farmers eagerly returning to cultivate the land, and tuckahoe. TUCKAHOE? What's that? And how does it fit into this spring scenario?

Each spring, Ethnology and Botany staff receive telephone calls enquiring about "fossilized pemmican". Pemmican, a mixture of dried pounded meat, berries (saskatoons or chokecherries) and fat, was a staple of First Nations across the northern plains. Pemmican provided a reliable and protein-rich food that could be stored for months at a time. If placed in a skin bag and left in the ground, however, it would soon decompose. Certainly, it would not remain intact long enough to become mineralized. The object in question is, invariably, a tuckahoe.

Tuckahoe is part of a fungus (*Polyporus tuberaster*) that attaches itself 2 to 12 inches below the soil surface, to the roots of aspen trees. The tuckahoe may occasionally send up a fruiting body in the form of a mushroom. Spring cultivation of the land around the aspens will sometimes bring the fungal mass (sclerotium) to the surface. The fungus is round, with a hard, dark, leather-like exterior. On the interior, fine white filaments, or hyphae, wind their way through encased dirt and stones to form berry-like shapes. The overall effect can resemble a bag of pemmican.

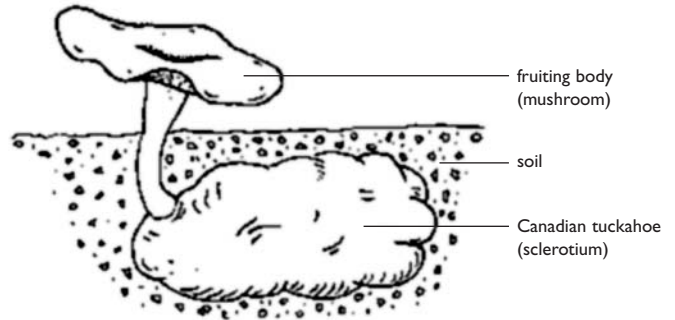


Illustration by Julie Hrapko
Curator of Botany, Retired

Some types of tuckahoe have an underground fruiting body (related to truffles) or mushroom that is edible. This tuckahoe or hoelen (*Poria coros*), found in the eastern and southern United States, can be ground into flour and used for a variety of foodstuffs, including bread. The Canadian tuckahoe, also aptly known as stone fungus, is however, not considered to be edible, unless you fancy eating dirt!

Ruth McConnell
Assistant Curator of Ethnology
Edited by Susan Berry, Curator of Ethnology and
Roxanne Hastings, Curator of Botany

[More Info...](#)

Ethnology



Exhibitions and Events... at the Museum

Big Things 3

Closes March 29, 2005



This year, the **North Edmonton Sculpture Workshop (NESW)** presents its third annual exhibition on the Museum's beautiful grounds. **Big Things 3** features new, large-scale sculptures by internationally established artists as well as emerging sculptors from Edmonton. With this continuing series of exhibitions, the **NESW** seeks to increase public awareness and appreciation of local contemporary sculpture, while boosting the vitality of the local art community. Appearing on the Museum's *Front Terrace*.

A Century Past: Refined Living in the New Alberta

Closes September 30, 2005



This year, Edmonton celebrates its centenary! On November 7, 1904, Edmonton officially became a city, and to mark this occasion, The Provincial Museum of Alberta is showcasing the art objects collected by John A. McDougall. This collection tells the story of refinement and sophistication that was found in the newly proclaimed city of Edmonton. Appearing in the *Main Floor Exhibition Hall*.

The Salts of the Earth

July 9, 2004 to May 4, 2005

An exploration of the geology, history, and medicinal applications of salt. Curated by Ron Mussieux, Curator of Geology, this small exhibition emphasizes the mineral's vital importance in human survival, the cultural story of salt production and its ever-changing uses and significance throughout the centuries. Appearing in the *Café Cases*.

More Info...

Exhibitions and Events

NEW EXHIBITION:

Wild Light Photography by Dale Hudjik

September 18, 2004 to January 9, 2005

This fall, the Museum is pleased to host the **Wild Light Photography** exhibition. Photographer Dale Hudjik invites you to view contemporary colour photographs of Alberta landscapes and experience the unexpected joy that comes with the discovery of new perspectives on a common theme. Appearing in the *Orientation Gallery*.

NEW EXHIBITION:

Teddies & Toys

November 27, 2004 to March 13, 2005

Teddy bears are back at the Museum again this winter! The Museum is delighted to share teddy bears of all shapes, sizes and colours. Also on display will be a treasure trove of toys ranging from trucks and games to dolls specially selected from the Museum's collections and private collections. Don't miss this "beary" favourite tradition! Appearing in the *Main Floor Exhibition Hall*.



Exploring the Museum... Education Program

Interview, by Heather Gross with Lori Holowaychuk: Interpreter for *The GEEE! In Genome*

This new exhibition helps explain both the relevance of genomics to nature and human life, and the controversy that stems from it, in areas such as agriculture, endangered species, forensics and advances in medicine. *The Geee! In Genome* is a national travelling exhibition that will be on display at the Museum until October 11, 2004. Lori Holowaychuk is one of two interpreters spending four months working in the gallery. I caught up with Lori one afternoon when she was packing up her supplies after making gene-based key chains with a group of kids.

Heather Gross: How did you hear about this exhibition?

Lori Holowaychuk: I am an interpreter with the *Wild Alberta* gallery. So when I found out that The Provincial Museum of Alberta was going to get this exhibition, I was asked if I would stay on as an interpreter to work in *The Geee! In Genome*.

HG: What is your favourite part of the exhibition?

LH: My favourite part is the section on gene therapy and genetic testing. This section shows the positive side of what scientific research can achieve. You get to meet real people through video testimonials who are carriers of a genetic disease.

HG: Do you have an example in mind?

LH: Yes. There was a woman diagnosed early with phenylketonuria using the Guthrie test, which was the first genetic screening test, developed in the 1960s. If diagnosed early enough, PKU symptoms can be minimized or eliminated through a special diet. If untreated, the patient would have suffered from severe problems, such as developmental delay, autistic behaviour and seizures. The study of genomics allows people to be pro-active in dealing with genetic diseases.

HG: How do you feel about that? Is that a positive thing?

LH: Definitely, yes, it's a positive thing.

HG: What is there for kids to do in *The Geee! In Genome*?

LH: There are lots of things actually. There are quite a few interactive activities in this exhibition. For example, children can be DNA detectives. They can race the cell to determine how many proteins they can make and compare it to what their body actually makes. The body can create 3,499,986 proteins in 24 seconds and I can only build a small part of the protein in that same time.

Children can also extract DNA from wheat germ. That's something that they do with us. Or they can try their hand at cloning.

HG: Which is your favourite special activity?

LH: Making the DNA zipper pulls.

HG: And how does that work?

LH: Kids change their name into DNA code. This short, fun activity illustrates how we all have similar letters in our DNA code but we all have a pattern unique to ourselves.

HG: How do visitors respond to it?

LH: They love it. It's an easy activity that gets the message across. Even though we are 99.9% like every one else, we are still unique.

HG: When can people expect to find special activities happening?

LH: 11:30 am and 1:30 pm daily, 7 days a week with an interpreter like me.

HG: Are there any controversial parts to the exhibition? How are they dealt with?

LH: Tons, glad you asked. Stem cell research, GMOs and cloning, to name a few.

Stem cell research is controversial because the stem cells are taken from embryonic cells – the question of when life begins is still hotly debated today. That's why it is such a touchy subject.

Cloning brings to mind the idea of eugenics: creating the perfect human being. The exhibition asks people to think about these issues and in particular begs the question: Just because we have the knowledge and technology at our disposal – should we use

it? If so, to what extent? We need to keep in mind the moral and legal ramifications of our actions.

HG: What do you find is the general response to the exhibition?

LH: There has been a very positive response from the public, clearly because this exhibition gets people talking and asking questions of themselves and the research being conducted. Genomics and proteomics might be the next wave of IT [Information Technology]. Biotech is hot! Quite often the information available to the public is not accurate – if it is presented by the media it tends to be inflammatory. This display allows the public to make informed decisions – it presents both the positive and potentially negative sides of genetic research. The information is factual, concise and user-friendly.

HG: What part of *The Geee! In Genome* should I make sure I visit?

LH: Spend some time in the entrance of the exhibit. The first section of the display presents some complex ethical questions. What if you could live to be 150? What if you could clone your favourite pet? What if you could give sight to a blind person? Science has made leaps and bounds in the last 50 years since scientists Watson and Crick discovered the double helix structure of DNA. That knowledge allowed us to map out the human genome. What will another 50 years of research bring? We must be willing to answer these questions because it will essentially decide the fate of our future as human beings and as a civilization.



Lori displaying the double helix model for DNA



Support Your Museum... New Initiatives!

Founded in 1987, the Telephone Historical Centre (THC) will soon be closing at their current location. A significant portion of the THC collection is from the historic organization *Edmonton Telephones*, which was one of the first municipally owned utilities in Canada. As such, it encapsulates an important part of the history of both Edmonton and Alberta.

In recognition of the collection's value, the THC and The Provincial Museum of Alberta have formed a partnership whereby many of the artifacts and three exhibits will be donated to the Museum. The Museum will catalogue, store, preserve and ultimately display the collection through the Western Canadian History program.

[More Info...](#)

[Support Your Museum](#)

The Community Initiatives Program recently directed \$35,539 towards the project, while Telus is currently in the final stages of reviewing an application. Although it is unfortunate that the THC will no longer be located along Whyte Avenue, it is encouraging to know that an even greater number of visitors will one day be able to view the collection at The Provincial Museum of Alberta. This is due, in large part, to the generosity and support of our community.

Contributions towards this project or any other Museum program are welcome. Please contact the Development Office at 453-9119. A tax-deductible receipt will be issued.

Michelle Elfstedt
Fund Development Coordinator

Shopping... at the Museum

Look what's happening at the Museum Shop:

October 8-11

Help us celebrate Edmonton's Centennial:
20% off all items in the Museum Shop!

November 8

Our Annual Jewellery sale begins:
25% - 75% off all jewellery.



Handcrafted fossil mammoth ivory pendant/brooch. Bear and Northwest native image hand carved and set in sterling silver with 14k gold accents.



[More Info...](#)

[Shopping](#)