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Telling Canada's Story
On Juno Beach

Canada's newest national historic site honours the contribution made by Canada during the Second World War

BY ALLAN LYNCH

For a few moments last summer, the sky over the Normandy beaches seemed to bleed. A helicopter, camouflaged to match the blue horizon, hovered over the sand at Courseulles-sur-Mer, dropping poppies. The flowers fell in blood-red clusters, then dispersed in the breeze like blood drops dispersing in water. Each poppy represented a Canadian killed in the Second World War. In all, 43,000 poppies were released that day.

Earlier, a fleet of helicopters had delivered the official party, including two prime ministers, Jean Chretien and France's Jean-Pierre Raffarin, and paratroops carrying Canadian flags had dropped from transport planes. Later, a lone Spitfire fighter plane had roared across the English Channel. For many, this was the first time they had seen the famous military workhorse in action. For others, it was a reminder of times past, when Courseulles-sur-Mer, like so many communities on both sides of the English Channel, regularly heard the roar of the little fighter.

The crowd had gathered that day for the opening of the Juno Beach Centre, Canada's newest national...
In the summer of 2003, a parade in Courseulles-sur-Mer (left) marked the opening of the Juno Beach Centre (top left). Vehicles of the 4th Canadian Division cross the Dives in August 1944 (right).

**SIGNS READ: "WELCOME TO OUR LIBERATORS" AND "NORMANDY WILL NEVER FORGET"**

storms, grew up largely unaware of what their parents had endured. And the situation wasn’t helped by the fact that in the largely American- and British-produced films or television programs on the war, Canadians tended to be either excluded or portrayed as playing a peripheral role. "Nobody talked much about the war until 40 years after it was over," says William Bettridge of Brampton, Ont., who served as a sniper with the Queen’s Own Rifles during the war. "It wasn’t until 1984, when there was a major celebration to mark the 40th anniversary of D-Day, that there was much real attention paid to Canada’s involvement in the war and people began opening up."

As visitors wander through the Juno Beach Centre, the enormity of Canada’s Second World War contribution and sacrifice — becomes evident. Of the 20,000 Canadians who participated in the D-Day invasion, one-quarter have been buried in two Canadian war cemeteries near Juno Beach, one at Bernières-sur-Mer and the other at Benerville-sur-Mer. And they were men in their prime. Grave after grave lists the age of its occupant at 18, 19, 20 or 21.

"This was a young man’s war," says the Canadian historian Jack Granatstein. "There were people who were lieutenants in 1939 and had become major generals by 1944. It was a war of rapid movement and high stress. "Many older men and officers couldn’t take the pace and were sent home and replaced by younger men."
It was our airmen who suffered the highest mortality rate. Canada lost 17,000 airmen in the Second World War. Russell Hobley best总结s the odds. The Halifax native, who spent most of the war as a Lancaster mid-upper gunner with the Royal Canadian Air Force’s 405 Squadron, was just 20 when he took part in D-Day. Over the course of the war, he completed 60 missions and earned the Distinguished Flying Cross. "In my squadron, there were seven men to a plane," he says. "Over the course of the war, we lost some 500 airmen members. You never made friends with anyone who sat across from you at breakfast, because he probably wouldn’t be there the next morning. You didn’t dare get close to people. It would have been too hard to deal with the constant death.”

Mark Lockyer, Gilbert Coutts and Harry Masters were among the Canadian veterans gathered for the opening of the Juno Beach Centre. A parachute officer with the 1st Canadian Parachute Battalion, Lockyer was one of a number of soldiers dropped behind enemy lines in the early morning of June 6 to blow up a bridge and help keep the Germans from reinforcing the invasion beaches. Coutts was a rifleman with the Royal Winnipeg Rifles. He was captured the day after D-Day, about 15 kilometers inland, and was forced to work in a German coal mine. And Masters, who was with the Canadian Armoured Brigade, drove supply convoys to the front.

But Canada’s contribution went beyond the men in uniform. Masters’ wife, Matsie, was one of about 21,500 members of the Canadian Women’s Army Corps. Stationed at several places in Nova Scotia, she learned to repair and unique contributions made by Canada during Second World War. It tells the story, for example, of the exotic Dutch royal family, who were given refuge in Ottawa during the war, and how British airmen transferred gold and paper securities to Canada for safekeeping. Sun Life Assurance’s Montreal office became the repository for the paper securities, while the gold bullion was secreted in the Bank of Canada’s Ottawa vaults. Much of the Polish Treasury’s assets were stored there as well.

Canada also provided a safe place for Allied leaders to meet. In 1943, Prime Minister Mackenzie King hosted Britain’s Prime Minister Winston Churchill and U.S. President Franklin Roosevelt in Quebec City, where they and various strategists discussed the Allied landing in France. In 1944, Churchill and Roosevelt met there again, this time to discuss the final strategy for the war and the future of Germany. The story told by the Juno Beach Centre is one of extraordinary achievement. "We were a nation of 11 million people, emerging from the Depression, and we managed to put slightly more than one million men and women in uniforms and contribute significantly to all of the major Allied operations in the European war," explains Terry Copp, a history professor at Wilfrid Laurier University in Waterloo, Ont. "One quarter of all the airmen in Bomber Command were Canadian. Half the squadrons flying tactical missions over Normandy in the early part of the Normandy Campaign were Canadian. Royal Canadian Navy frigates helped bring troops to the Normandy beaches, and Canadian frigates and Corvettes protected the armada. The Canadian 31st Minesweeping Flotilla cleared the way for the American troops into Omaha Beach. Canada has a story well worth telling.”

Copp believes two of the most important chapters in Canadian history occurred on the battlefields of Europe. "For the second and fifth decades of the 20th century, we, as a country, were dominated by and committed to supporting Britain and France and the other Allies. In the First World War, this had the effect of transforming Canada from the colony it had been into a true nation. The Second World War transformed us into a nation that played a major role on the international stage. At the end of the war, we were the fourth-largest military power in the world. Our position in NATO and in the development of the United Nations is a consequence of the role we played in the Second World War.” And so it is fitting that on the now tranquil beaches of Normandy, there is a place where Canada’s Second World War story is told, a story of sacrifice and bravery, of steady determination and resourcefulness—a story of a nation’s coming of age.
Northern Partnership

Listening to, and learning from, the largely Aboriginal community of the Mackenzie Valley is an essential aspect of the Mackenzie Gas Project

By Mary Bernard

After putting on the kettle for tea, Terry Sawyer, an Elder from the Gwich'in community of Ts'agwah, N.W.T., clean away a pile of papers on her kitchen table and sits down for a chat. Her computer hums in the background as she talks animatedly about the Mackenzie Gas Project and the jobs, training programs and educational opportunities it would bring to the region. "We have to look to the future," says Sawyer, whose book, Living in Two Worlds, discusses her experiences living in both traditional First Nations and western cultures. "Our people are going to have to learn to live with this - that people are going to have to leave the region to earn a living. The project would bring jobs and training to the North, and that means there's a better chance that people would stay." But Sawyer isn't oblivious to the challenges that lie ahead. One, she says, would be ensuring that the benefits resulting from the project get back to the northern communities, where they are most needed.

The Mackenzie Gas Project is designed to be developed on an expandable basis. The partners intend to the regulatory applications later this year for a project with initial gas rates of up to 1.2 billion cubic feet a day. The venture would be anchored by three gas fields, including Imperial's Taglu field, which is expected to produce 800 million cubic feet of gas a day. It would involve drilling wells and building production facilities at the gas fields, constructing a gas-gathering pipeline system to take both natural gas and natural gas liquids, such as butane and pentane, from the fields to a gas-processing plant that would be built near Nainu. It would also involve building the main pipeline, which would run from the gas-processing plant down the Mackenzie Valley, connecting with existing pipeline systems that would transport the gas to markets across North America, Imperial Oil and its partners - Conoco-Phillips Canada, ExxonMobil Canada, Shell Canada and the Aboriginal Pipeline Group (APG), which represents the Aboriginal peoples of the Northwest Territories - are working together on the project, with Imperial Oil acting as operator.

André Otenbreit, Imperial's development executive for the project, explains that consulting with communities is important in every area of the company's business, but never has it been so critical as in the Mackenzie Gas Project. "The project would be situated in Aboriginal regions," says Otenbreit, who spends a quarter of his time in the North, "and it's essential for our mutual benefit that we all work together to understand concerns and address them."

In the 1970s, when the unrefined natural gas reserves in the Mackenzie Delta were discovered, pipelines were proposed and discussed. Then, in 1977, Justice Thomas Berger, who headed the Mackenzie Valley Pipeline Inquiry, recommended a 10-year moratorium be placed on pipeline development in the Mackenzie Valley to allow for the settlement of Aboriginal land claims in the region. "Since that time," Otenbreit explains, "land claims have been settled in three of the four Aboriginal settlement areas in which the proposed project would be located - the Inuvialuit, the Gwich'in and the Sahtu areas. The Deh Cho people, who live in the southern part of the Northwest Territories, are still negotiating with the federal government.

"The other thing that is different from the 1970s," says Otenbreit, "is that Aboriginal leaders have told us they are supportive of a pipeline and that they want to participate in its development." In 2000, more than 30 leaders representing Aboriginal groups throughout the Northwest Territories met in Fort Lisburn to discuss the proposal of developing a pipeline. They resolved to establish a business relationship to maximize ownership and benefits from a Mackenzie Valley natural gas pipeline. "It was out of this meeting that the Aboriginal Pipeline Group was born," says Otenbreit. "The meeting took place before Imperial or any of the producers announced the start of a feasibility study of the pipeline project."

In his office in Inuvik, Fred Carmichael, an articulate and soft-spoken man who is chair of the APG and president of the Gwich'in Tribal Council, explains why Aboriginal groups are now ready for a pipeline. "Besides our settled land claims, our people are now better educated and have entered business and politics. While we still have a high regard for the land and our traditional way of life, very few people still live exclusively off the land. I also think there is a realization that we have to take steps to improve our standard of living - things like education, health and housing."

Projects like the pipeline can help provide an economic base, he says, because not only would there be benefits that would flow from the project itself, but the government would also benefit through taxes and royalties, which would help it to address some social issues.

Amirchak, who owned a small airline that serviced remote locations in the North until the early 1990s, when he sold it to retire, talks about the APG's involvement in the project. In October 2001, the APG signed a historic memorandum of understanding with the project partners, outlining how it would work with them during the planning and later phases of the project; the unprecedented agreement also provides the opportunity for the APG to potentially acquire up to one-third interest in the pipeline. In January 2002, the APG and its partners jointly announced that they would prepare regulatory applications. Finally, last June, we reached funding and participation agreements with the other partners and TransCanada PipeLines, which is funding the $80 million we
ned for our share of the current work on the project," Camsieh concludes.

Dee Brindes is Imperial's consultation and community affairs manager for the Mackenzie Gas Project. Based in Calgary, she spends about a third of her time in the North, and it is her job to ensure that residents are informed about the project and what it will mean for their communities, as well as to listen, learn and understand their questions and concerns.

"We do face some challenges in communicating with communities along the proposed pipeline route," she says. "There are a lot of communities spread out over a vast area. Our Aboriginal employees in the proposed pipeline corridor regions play a pivotal role here."

Brindes explains that the Mackenzie Gas Project has opened three regional offices in the Northwest Territories (in Fort Simpson, Inuvik and Norman Wells), where local residents can go to find out about the project, as well as employment and training possibilities, and to provide input. The 10 people who staff the offices live in the area their office serves and provide an invaluable link between the people of the region and the project. Besides the regional office staff members, there are representatives in and from, about a dozen other communities along the proposed pipeline corridor who distribute information to area residents and meet with them to discuss any concerns.

"We want people from the region to understand what the project entails, and we try to keep them informed on progress in a variety of ways," says Brindes. A quarterly newsletter provides updates about the project, for example, and a video has been produced that shows exactly how pipelines are constructed. The staff in the regional offices make presentations about the project to students at all levels and to various community groups.

"We are using a variety of vehicles, including a Web site, radio and printed booklets to keep residents informed about the project," explains Brindes during a visit to the Inuvik office. The primary consultation tools are meetings, workshops and open houses, because they allow us to talk to people face to face." meetings with residents continue to be held in communities throughout the Mackenzie Delta and Mackenzie Valley. About 8,000 people live in the communities along the proposed pipeline route. Project team members have met with residents and community groups such as hunters and trapper committees, renewable resource councils, Elders, youth groups and band councils. Brindes notes that the meetings, of which there have been more than 800, do more than present information. "They provide an opportunity for us to hear people's views, concerns and questions about the project," she says.

Brindes can recall several instances when information received from the community has resulted in changes to early plans for the pipeline route. "For example, in the Deb Cho region, concerns were raised because the route proposed for the pipeline crossed an area of spiritual and cultural significance," she says. "We worked together to find a better route." In the Steel region, a change was made to early plans for the pipeline's crossing of the Great Bear River. The route was moved to accommodate concerns that construction might interfere with the water intake system. "In the Inuvik region, the community of Tsiigehtchic advised us that the pipeline route should be moved farther away from Tuvalliant Lake to ensure that fish and wildlife habitats wouldn't be disturbed," Brindes says. "Local residents worked with the project team to identify a mutually acceptable alternative route."

"The more information the project members and communities of the region share, the better it is for everyone. We're working together so that we can all benefit."

Grace Blake, regional liaison for the Gwich'in community, stresses the importance of taking people's concerns into account.

More than 100 northerners worked as field assistants in 2003 to help gather environmental information on planes, wildlife and watertables along the proposed pipeline route.

The town's main thoroughfare. It is across the street from the North Mart supermarket and just down the road from the video store. The coat rack by the door lacks the bulky plastic needed in the region's frigid winter - minus 30 to minus 40 C is not uncommon.

"The meeting room on the first level is packed with regional maps that show the proposed route of the pipeline. Post maps are mounted on two adjoining walls to show the pipeline's entire 1,220-kilometre route. Imperial employees Grace Blake, regional liaison for the Gwich'in community, and Ross Wilson, regional liaison for the Inuvialuit, chat about their roles and what their communities think about the project. A confident young man who grew up in Whitehorse, Ont., where he owned his own business, Wilson explains that the pipeline has significant support among the Inuvialuit, who occupy the northernmost part of the project area. "Oil and gas companies have been working in the region for many years now," he says. "There are numerous Aboriginal businesses that service the industry. People understand the business and employment opportunities that may come from the project." Blake, who hails from Tsiigehtchic and was Chief of that community for 11 years and mayor for five, understands why some of her community members have concerns about the project. "People respect the Elders, and some of them see the pipeline as a threat to the traditional way of life," she says. "When they see they can lose something, they are concerned that it would affect traditional ways. This is understandable, and the project team has to be careful to listen to the people and take into account their concerns. I see them doing that, and I'm encouraged by what I see."

In January 2004, Imperial sponsored a trip for 24 people from 13 northern communities to Peaceful Lake in northern Alberta, where TransCanada PipeLines was building an 18-kilometre pipeline on the traditional lands of the Bajtome Cree Nation. Wearing hard hats and safety glasses, the visitors travelled along the right of way, seeing for themselves how a pipeline is constructed and laid beneath the ground. "It's hard to understand what's involved in building a pipeline unless you actually see it," explains Brindes. "The trip enabled people to do that."

"This is the first time I've seen pipeline construction," said Chief Fred Norwegian from Jean Marie River, N.W.T., at the end of the trip. "It's very interesting, and it gave me a real good insight to what it's all about." Jean Marie River First Nation owns a sawmill. "The trip gave me ideas for how we can make sawdust to hold the pipeline," said Norwegian.

Andre, a 74-year-old Gwich'in elder from Tsiigehtchic, was also among the group. "He brought a weathered face to the fact that he has spent more than 50 years 'hunting on the land,' hunting caribou and moose, fishing, and trapping beaver and mink. Andre appreciated the chance to see how things are done but still has concerns about the pipeline. "Yes, I saw the pipe being laid, and I talked to the people," he says now. "But how do we know the animals will come back?"

"That's a very legitimate concern, especially when your livelihood depends on it," says Brindes, explaining that a key aspect of the formal environmental assessment involves looking at how the pipeline might affect wildlife. A number of studies have addressed the impact of development on caribou and concluded that the animals are relatively adaptable to development. In fact, the studies cite several instances in which caribou populations have increased after development, a result, it is thought, of the creation of greater land access. "Past experience with pipelines in Alberta has shown that animals
temporarily disturbed by construction activity do return to their sites," says Brandes. "And we wait to do all we can to ensure that the animals do come back."

Both environmental and socioeconomic assessments must be conducted in order to submit a regulatory application and secure approval to proceed with the project. Imperial is expecting to file the application this year. Engaging the communities along the pipeline route is essential in doing thorough assessments, says Brandes. Traditional knowledge—a community’s environmental, cultural and spiritual knowledge and beliefs about the land, developed from experience in living off the land—is of vital importance to the project. "Traditional knowledge studies are being conducted by the communities themselves under contract to the Mackenzie Gas Project," explains Brandes. "All communities along the pipeline corridor are being asked to participate in these studies. The more information the project members and the communities of the region share, the better it is for everyone. We’re working together so that we can all benefit."

All three of the regional offices have been busy supporting the pre-construction work taking place in the various regions during the winter—the collection of engineering and geotechnical data required for the project. By the end of 2003, one million hours of work had been completed on the project in the North and Calgary together. What is particularly significant about this milestone is that it was achieved without a single recordable safety incident.

Land access benefit assessments must also be in place within each region before construction can begin. These agreements are contracts negotiated with Aboriginal land owners that document the benefits that would result from the project. "They cover areas such as education, training, employment and business opportunities, as well as compensation for goods and services associated with the project, with a total financial contribution of $34 million going to northern residents or businesses," explains Young. "We have committed to discuss our business needs with northerners in a timely way, and to structure contracts when we can in sites that can be accessed by northern businesses," explains Young. "All kinds of goods and services would be needed, everything from communication equipment and accommodation to construction and transportation services."

"We are also working with northern residents to address the skills and training required to qualify for job opportunities created by the project, and we’re working with schools and contractors to help them understand what would be needed," says Young. For example, the first group of students in a pipeline operations training program will start their studies in September 2004, which will qualify graduates for positions as production or field operators, mechanics, millwrights and engineering technologists. Apprenticeship training will commence at the same time.

In January, 24 northern residents travelled to northern Alberta to see how a pipeline is constructed. About 8,000 people live in the communities along the proposed pipeline route, which would run south from Inuvik down the Mackenzie Valley. The town of Fort McPherson, N.W.T., on the Gwich’in settlement area, is on the west side of the Mackenzie River. Accessible from Inuvik in winter by the ice road that runs across the river and in summer by ferry, it is home to Liz Wright, who worked as Imperial’s part-time community representative for the Mackenzie Gas Project until she left the position last February to take a full-time job with the N.W.T. government representative. A mother of three, Wright believes the region would benefit significantly from the pipeline project and is confident that Imperial and its partners know what they are doing and will protect the land. Her father, however, was of a different mind back in the 1970s. The late Johnny Charlie was a respected Chief in Fort McPherson, and he strongly opposed the pipeline then. "Now, when I speak to the Elders, they still remember what my father said," notes Wright. "I try to tell them that today’s technology has solved many of the concerns associated with the pipeline in the 1970s. But some people are still skeptical. And this is natural. You cannot expect everyone to be of one mind."

"The success of this project, both as a business proposition and in making a contribution to the area, depends on the building of solid relationships of trust and mutual respect between the project operators and the Aboriginal peoples of the region," stresses Brandes. "That’s how business is conducted in the North." Each encounter is a learning experience for both sides. Add Brandes: "We are learning as partners how to work together. And that is important because we plan to be here for a long time to come."
Putting Safety First

Although significant strides have been made in workplace safety, there is still much to be done. In Canada, on average, a person suffers a work-related injury every nine seconds.

When I was a student in the 1980s, I spent a summer working with a major construction company, and some 40 years later still vividly recall the experience. It wasn’t the work itself that made such a lasting impression but the company’s approach to safety. Despite the risks posed by construction work, little attention was paid to putting in place sound safety practices and ensuring they were followed. Over the course of that summer, I saw firsthand the debilitating results of this irresponsible approach to safety and its management. I don’t think a week went by without a worker being injured, sometimes seriously.

For the next couple of summers, I worked at Imperial Oil’s Regina refinery. It was a completely different experience, and I saw the value of making safety a priority – of putting in place systems, processes and training to ensure that risks are identified and addressed. In short, I saw the value of managing safety in a much more well-rounded way.

While significant strides have been made in the area of workplace safety, there is still a great distance to go. Each year, more people die in this country from workplace injuries than from, for example, skin cancer or violence crime. In fact, on average, nearly three people die every day in Canada from workplace injuries and a person suffers a work-related injury every nine seconds.

The personal cost of these injuries is devastating. Behind every statistic is human suffering: people having to come to terms with physical limitations, families without income, children facing the prospect of growing up without a parent. And beyond the human cost, there are enormous economic costs. In Canada, work-related injuries are said to result in more than 15 million lost workdays a year, which is equal to the amount of work performed by 67,000 people working full-time. Conservative estimates put the cost to Canada of workplace injuries and illnesses at around $12 billion a year.

That is an enormous and, I would argue, avoidable drain on our economy.

The global statistics are appalling. It’s estimated that two million people a year (more than 5,000 each day) die from work-related injuries and illnesses and that more than 250 million work-related "incidents" occur. If the cost to Canada of workplace injuries and illnesses is $12 billion a year, one can only begin to imagine the global cost and suffering.

Another sobering reality is that when it comes to industrial safety, we lag behind our southern neighbour. In the United States, the rate of fatal injuries per 100,000 workers employed dropped from five to four between 1998 and 2001; in Canada the rate rose during the same period from 6.7 to 7.2. This gap speaks not only of suffering and loss but of a competitive disadvantage.

At Imperial, we have set a goal of having zero work-related injuries or illnesses. I recognize this is an ambitious goal, considering that included among workplace injuries are such common problems as repetitive strain injuries resulting from keyboarding and cutting results from, say, the accidental stapling of a finger. But the fact is, all these injuries are preventable, and prevention starts with awareness. I believe it is incumbent on all corporations to zero their risks as their safety goal and to work constantly to achieve it.

Focusing on safety does pay off. Last year was the safest Imperial has ever recorded. In 2003, the total recordable injury rate for Imperial employees was 0.39 per 200,000 work hours, less than half the average rate for the major competitors.

Although I am encouraged with Imperial’s safety achievements, the fact is there is still room for much improvement. While our safety record is among the best in Canadian industry, our injury rate is not zero, and in the past, people have died as a result of workplace injuries. When it comes to safe operations, the only acceptable number of incidents is zero.

What is key to achieving safety goals is sustaining a culture of safety, one in which every employee and contractor has absolutely no doubt that safety is the top priority. Everyone must understand that nothing is more important than safety: no costs, no production, no finishing a job quickly – not profit. Safety is an integral part of the business.

Sustaining a safety culture starts with senior management. For this reason, the circumstances leading to every last-time incident that occurs in company operations, as well as other occupational injuries and illnesses that require medical treatment, are discussed in my office along with the measures to be taken to prevent any similar incident from occurring in the future.

All stewardships of each business area start with safety, and the safety performance of every individual department or work group within the company must be a high priority for the department or work-group manager. That means every manager and supervisor is held accountable for the safety performance of his or her group, and every individual is accountable for his or her safety and the safety of co-workers.

We also need to look to unions, which have historically played a major role in gaining improved working conditions for their members, to show continued leadership in the area of safety, supporting improved safety standards and highlighting the importance of working safely.

As a leading Canadian corporation, Imperial has a responsibility not only to operate safely but to help improve the country’s overall safety performance. Safety is not an area for competition but cooperation; we all need to work together, sharing our expertise and raising overall safety consciousness.

To this end, Imperial focuses on a number of fronts. Through participation in industry associations, we work with other corporations to promote safety throughout industry.

Responsible Care, a long-standing program of the Canadian Chemical Producers’ Association, was, for example, primarily designed by representatives from Imperial. The program helps ensure the safe handling of chemicals and has been cited as a model for the worldwide petrochemical industry. Imperial has also been involved in a number of partnerships focused on improving safety. For example, we are working with the government of Alberta and other employers to improve the safety performance of all workers through participation in the province’s Partnerships in Health and Safety program. And an Imperial vice-president has been serving on a task force initiated by Alberta’s minister of human resources and employment to develop recommendations for improving workplace safety.

Another particularly promising initiative is Minerva Canada, a not-for-profit organization that works to introduce health and safety into the curriculum at post-secondary institutions. Several companies, including Imperial, helped found Minerva with the aim of ensuring that people entering the workforce understand that safety needs to be managed every day but as much care as any other aspect of business and giving them the tools to do this.

But safety is not just a workplace issue – it is an aspect of daily life. Imperial and a number of other corporations sponsor the Safe Communities Foundation. Dedicated to "making Canada the safest country in the world to live, learn, work, and play," the foundation is a national, not-for-profit organization that believes that all injuries are preventable and works to promote safety in all areas of the community, including the workplace.

Over the years, I have come to realize that how a company manages safety is a good indication of how it runs all other critical pieces of its business. The attributes for good safety management – good procedures, attention to detail and a commitment to excellence – are also what is required to sustain our competitive advantage.

The fact is, a safe workplace is not a privilege but a right. People must be able to go to work knowing that all measures have been taken to ensure their safety and that they are a part of a wider fellowship of workers who take responsibility for one another’s well-being. We must all – corporations and individuals – work together to make safety a priority in all areas of life.
Chronicling a City’s Past

Dating back to 1850, Toronto’s Necropolis cemetery is a silent witness to the life and times of Canada’s largest city.

BY WARREN GERARD

Life wasn’t easy in 1834, when York was renamed Toronto. While the town’s 9,000 citizens enjoyed various amenities, including the St. Lawrence Market, a number of shops, taverns and churches, there were no sewers or municipal water. The roads were often so muddy they were impassable, and the town became known disparagingly as Muddy York. Life was hard for the townsmen; it was harder still for the settlers who were clearing the virgin forest from the bustling land, struggling through treacherous summers and harsh winters.

In such an environment, life was fragile. The mortality rate of children was high. Sanitation was poor. Infection diseases were a frightening threat, striking all ages, and medical care was more of an art than a science. The community’s cemeteries were a testament to the harsh realities of life in early Toronto.

There were several denominational cemeteries, which served the town’s mainly Roman Catholic and Church of England populations. As well, there was the Strangers’ Burying Ground, or, as it was more commonly called, Potter’s Field, a name derived from a biblical passage (Matthew 27:71): “And they took the body, and buried it.”

A two-and-a-half-hectare plot near Bloor and Yonge streets, Potter’s Field was...
opened in 1826 but closed in 1855 because it was deemed an impediment to the growth of the quickly expanding village of Yorkville. By 1881, more than 900 bodies from Potter's Field had been moved to the Necropolis (Greek for "city of the dead"), which had opened in 1850 in Cabbagetown.

"The original Cabbagetown was a poor neighborhood," says George Rust-175Eye, a lawyer and historian who lives three blocks from the cemetery. "People lived in shacks or very low-grade houses with outhouses. It was an unhealthy place, and in 1832 and 1844, there were cholera epidemics."

Occupying more than seven hectares of prime land on the west side of Toronto's Don Valley, the Necropolis is today a quiet place in a beautiful setting with a variety of flowering shrubs and trees, including large red oaks older than the cemetery itself, weeping elms, black locust trees, sugar maples, white elms, pines and a cucumber tree. Just across the road is Riverdale Park and a pioneer farm (once the Toronto Zoo), with cows, horses, pugs, goats, sheep, chickens, ducks and geese, and a respectable vegetable garden in the summer, when birds play on Sundays.

The Necropolis can't compete in rustic quaintness with the picket-fenced graves whose markers tell the story of the gold rush in Barkerville, B.C. Nor does it attract disaster, as does the Fairview Lawn Cemetery in Halifax, with its rows of small grey stone markers, each with the same date, April 15, 1912, the day the Titanic sank. And it can't evoke the terrible sadness that Quebec's Grosse Île does. This island is located in the St. Lawrence River 50 kilometres downstream from Quebec City, and it was there that the victims of typhus were buried in mounds, one stacked upon the other. A small monument on the site reads: "In this secluded spot lie the mortal remains of 5424 persons who flying from Pestilence and Famine in Ireland in the year 1847 found in America but a Grave."

The Necropolis, however, is remarkable for the history it has witnessed in the heart of Canada's largest city. It has borne witness to the life and times of the notable, the ordinary and the unknown who lived, worked and died in Toronto. Their stories are of local importance and in some cases national significance. They chronicled battleship, disease, rebellion, war, epidemics, civil accomplishment, love and loss. "You see history all around you," says Rust-175Eye.

"I see the Necropolis as a sort of catalogue of people who lived and worked in Toronto over the years."

The first name entered in the cemetery's many interment registers — kept in the small office next to the cemetery's chapel and written in beautiful copperplate handwriting — is Andrew Porteous, a 24-year-old carpenter who died on December 16, 1849, at the age of 69. His body was stored in a vault at the cemetery until after the spring thaw; it wasn't until May 22, 1850, that he was finally buried. Neither cause of death nor any other pertinent facts were recorded. Among those moved to the Necropolis from Potter's Field were Peter Matthews and Samuel Lount, both of whom were executed for treason for their part in the Rebellion of 1837. The two were hanged side by side.
Their minds were tranquil and serene
No terror in their looks were seen
Their steps upon the scaffold rang
A moment's pause... their lives were gone
A few hundred metres from where Matthews and Leout are buried is the grave of William Lyon Mackenzie, newspaper editor, first mayor of Toronto and leader of the doomed rebellion. Unlike his followers Matthews and Leout, Mackenzie fled across the border to escape the hangman's noose and lived in New York State. After 12 years, he was pardoned and returned to Canada, where he was elected to Parliament. His headstone, under a large Celtic cross, reads: "William Lyon Mackenzie. Born 12th March 1795, Died 28th August 1861."

Robinson raised funds to build Toronto's Hospital for Sick Children and supported many other causes.

The remains of a number of local politicians are also to be found in the Necropolis. William Peyton Hubbard (1842–1935), a popular black city alderman, was nicknamed Citizen of Council by his colleagues and served as acting mayor in 1906 and 1907. Ralph Day (1888–1910) was mayor from 1908 to 1909, and on his headstone is inscribed the motto Suisl Sit Vindhs (He stands by his own powers).

Other occupants were first in their endeavours. Thornton Blackburn, who died in 1890, was a former slave who made his way to Canada on the "Underground Railroad" and established the first coal company in Toronto. Anderson Ruffin Abbott (1837–1913), the first Canadian-born black graduate of the University of Toronto's school of medicine, was a surgeon in the Union Army during the Civil War. Joseph Burt Tyrrel (1855–1917) discovered that dinosaurs were a pebbled desert.

Throughout Toronto's early years and well into the 20th century, causes of death were listed in the cemetery's internment books along with the names of the dead, a practice no longer followed. As with cemeteries of a similar age, the Necropolis reveals that death could come from a variety of natural and other causes: bilious fever, liver complaint, consumption, smallpox, dysentery, scarlet fever, dropsy, whooping cough and...
cramp in the heart among them. Martha Ford, age nine months, fell victim to typhoid. Martha Smith, 36, died in an asylum of exhaustion. Isiah Sewell, 17, was murdered. Grace Johnston, 24, succumbed to tuberculosis. Isabella Anne Gamble, three, died of stagnation of the heart. And Rose, Jane, Cecilia, Phoebe and Mary Ward, sisters ranging in age from five to 13, drowned on May 11, 1862.

October 1918 stands out. It was the early stage of the Spanish flu epidemic of 1918-19, the worst influenza epidemic in history, in which at least 20 million (some estimates suggest 100 million) people died around the world, 50,000 of them in Canada. The months of October recorded 80 deaths, 66 of them caused by the Spanish flu, which struck with amazing speed, often killing victims within hours of the first signs of infection. Oddly, it tended to kill the young and healthy, a fact indicated by the ages of many of its victims buried in the cemetery, such as George O. Stewart, 26; William Ray, 25; Gertrude Scarlett, 18; Walter Holliday, 24; and William White, 27.

The epidemic was brought to Canada by soldiers returning from the Great War. Although they survived the war, many succumbed to the flu. Buried side by side, for example, are four members of the Royal Air Force: Darlin D. Bushell, Augustus White, Howard Harris and Arthur Green. All but one of them was in his late teens or twenties; all died of the flu in Toronto between October 19 and November 2, 1918.

The Necropolis has its share of war dead, too. Ensign Malcolm Mellishen and Sergeant Hugh Mathieson of the Queen's Own Rifles, a Toronto regiment, both fell in the Fenian Raid of 1866 at Ridgeway in southwestern Ontario as the Irish American organisation invaded Canada in the cause of a free Ireland. In a shared plot are the remains of Private Bert Brown, 17, and Private F. Beach, 21, both of the 134th Battalion. They "both died for freedom" on July 15, 1916. Those who died on foreign battlefields in the Second World War were buried in cemeteries close to where they were killed. Headstones across the country, however, recall the service of those who survived the war but died years later at home. One such soldier buried in the Necropolis is Robert Wylie McCabe, a major with the Irish Regiment of Canada who served as aide-de-camp to General Charles Foulkes and was at his side at the unconditional surrender of the Germans in Holland in 1945. The most recent victim of war buried in the cemetery is Ainsworth Dyer, who grew up in nearby Regent Park. Dyer, a corporal in the Princess Patricia's Canadian Light Infantry, was 24 years old when he was killed by "friendly fire" in April 2002. His funeral was one of the largest in recent memory at the Necropolis.

In all, the remains of nearly 50,000 people have been buried at the Necropolis, and almost 30,000 more have been cremated in its crematorium, which was built in 1933, the first in Ontario. Like other old cemeteries across Canada, the Necropolis is a history book, a record of events, great and small, and of lives lived.
June Strandberg
Florist

Three hundred people have gathered in the hall in Burnaby, B.C., to enjoy the annual floral show. It is late November, and the show features artfully created wreaths, centerpieces and other decorations for the Christmas season. Women in red T-shirts scurry about, providing therapy service. But this is no ordinary floral show. Prompted by a crowd, keeping a watchful eye on the servers, whose T-shirts feature the word “Beginnings,” the name of the floral training program and shop at the Burnaby Correctional Centre for Women near Vancouver. Organizing the event with calm confidence is June Strandberg, 69-year-old founder of North America’s first floristry training program and shop behind bars. The award-winning Canadian florist named the program Beginnings as a symbol of hope for the women she felt compelled to help.

Strandberg’s love of flowers dates back to her teenage years. Her uncle owned a floristry business in Calgary, and she would help out in his shops and greenhouses after school and on weekends. “I loved working with plants and flowers and thought about making them my career,” she says. But Strandberg’s father, an executive chef with the Canadian Pacific Railroad, had other ideas and in 1949 found her a position as a trainee at a coconut shop with CP. She hated the work, but within a year of joining Canadian Pacific, she left to work full-time in her uncle’s floristry business.

In 1965, Strandberg moved to Vancouver, where she eventually opened her own shop. Later, she began working for florists, travelling the country to teach floral design to these clients. She came to love teaching and in 1984 opened the Bayside School of Floral Design. The venture was to change her life.

One afternoon not long after opening the school, she received a phone call from a social service official. Would she train two parolees, the official asked. Strandberg said she try. Unfortunately, the women simply sat at the back of the class and didn’t participate. At the end of the first week, Strandberg contacted the parole to say it wasn’t working out. The women contacted implored her to give them another chance. They passed the course and along the way discovered artistic talent. “I blew away,” says Strandberg. “These women just excelled. One eventually became the florist shop manager at a major department store, and the other now owns her own shop.” Strandberg and the two women continue to keep in touch today. The feeling of satisfaction she received from helping the two parolees never left her, and in the late 1980s she decided she wanted to work closely with female inmates. Undaunted by the fact that she had minimal experience in the world of corrections, she began making calls, eventually finding her way to Beverly Roost, program director for the soon-to-be-opened Burnaby Correctional Centre for Women. “She asked me to meet her that day,” laughs Strandberg. “We sat down together in her office, and I proposed that I teach floral design to selected inmates in a flower shop at the prison so people could buy their work.” Roost was encouraged and asked that Strandberg put the proposal in writing. “It got to happen,” she told Strandberg, but warned that selling the idea to prison officials would be a challenge.

Roost was right. Strandberg spent more than a year talking until she was “blue in the face,” trying to convince prison officials that the program would be successful. They were alarmed that inmates would be working with scissors, knives and wire cutters, that no guards would be present during the classes (at Strandberg’s insistence) and that she would not have an actual security alarm. “I felt it was important that I treat the women the way I would want to be treated myself,” she says simply.

One of the things that Strandberg has sometimes worked with inmates who have committed multiple murders, Strandberg says she has never worried about her safety in the prison. “I never ever felt threatened,” she says. “I related to the inmates as women. It was never ever interested in what they had done. I treated them with respect and they treated me the same way. These were women who had lost family and jobs and self-respect.”

However, the first few months Strandberg worked at the correctional facility were not easy. “It was a tense time,” she says, explaining that she was not allowed to have her own telephone line in the shop or to advertise, and she had trouble finding florists who would give her students jobs after they were released. As well, some clients were afraid to enter the shop, even with guards.

Ever resourceful, Strandberg decided that her florist colleagues needed to come to the prison to see the work the inmates were doing. Once again, she went back to the facility’s administration this time to request permission to hold an evening meeting for the Northwest Florists’ Association in the prison program’s workshop and to invite three inmates, who were serving life sentences for murder, demonstrate their floral design skills. Prison officials were reluctant, but Strandberg’s unswerving commitment to her cause saw the day. Fifty chairs were set up in the gymnasium for the meeting; 98 florists showed up. “That evening opened the door,” she says. “After that it was much easier to find placements for the women once they were released.”

Strandberg herself taught the program, with three other instructors working with the inmates in the store. The participants generally had no experience in floristry. “They don’t walk in and suddenly know where the end of a flower comes from,” says Strandberg. That changed the first day, when they made a flower arrangement and took back to their cell. At the end of the course, the participants moved on to work at the Beginnings shop, where they were paid a nominal amount and even took trips with Strandberg to workshops and auctions outside the prison. More than a third of the program’s graduates have gone on to find jobs in the floristry business after being released from prison.

Weddings were to become the focus of the shop’s business. From 1991, when Beginnings was founded, to the end of 2003, inmates created floral arrangements for more than 1,600 weddings. Their work also won a number of awards. Says Renée Soriano, who spent six months working at Beginnings and hopes to open her own floral shop one day, “It makes me feel good knowing that I am actually doing something and am good at it. Brides would come in and they’d be so thrilled they’d hug us.”

Earlier this year, the Burnaby Correctional Centre for Women closed and the inmates were sent to institutions closer to their homes. With the closure of the facility came the end of the Beginnings program. While the floristry program may have ended, Strandberg has been busy. In time, Strandberg hopes flowers will once again be able to work their magic with inmates, helping to heal wounds and provide direction. And for the compassionate florist who wouldn’t take no for an answer, that is what matters most—Heather Kent
Booting Up Girls’ Interest in Computer Science

Since the mid-1980s, the number of young women going into computer science at university has dropped dramatically. An innovative program at the University of Waterloo is aiming to reverse that trend.

BY CATHERINE TEASDALE

Forty-eight girls in the classroom look expectantly at the instructor. “With your partner, you’re going to dismantle the computer on the table in front of you,” the young woman at the front of the room tells them. “And then you’re going to put it back together and reboot it.” At first, the girls laugh in disbelief, but it quickly dawns on them that this is no joke.

Some are a little daunted by the task. Others are excited. In the middle of the room, one girl gingerly touches the inner workings of the central processing unit, seemingly afraid that any roughness will cause damage. Once “under the hood,” however, it doesn’t take her long to realize that a delicate tug isn’t enough to get the components out. As the dismantling progresses, the confidence level in the room builds. And when the last component is reassembled and functioning, the noise in the room reaches a crescendo as the girls cheer and give high-fives.

“I don’t think cheers and high-fives would be the reaction from a room full of boys who’d accomplished the same task,” says Sandy Graham, a computer science lecturer and program chair for the Imperial Oil Seminar in Computer Science for Young Women. “Girls tend to lack confidence when it comes to computers, and it just never occurs to many of them that they can successfully take apart a machine and rebuild it.”

Here, there are no masks, no pop or fail results. The girls who take part in the two-week-long seminars held at Ontario’s University of Waterloo each summer have an opportunity to focus simply on learning about computer science in a cooperative and supportive atmosphere. The 14- to 16-year-olds, who come from across Canada, are introduced to two core computer science disciplines: digital hardware design and modular programming. But the seminar’s aim is to provide much more than academic instruction. It works to build computer confidence in girls and to send the message home to those who attend that computers can be of just as much interest to girls as they are to boys.

Lisette Yorke, a grade 11 student from Hillside Boulevard on Nova Scotia’s Cape Breton Island, attended the program last summer. She vividly remembers dismantling and reassembling a computer. “I used to be scared of doing anything with the mechanics of a computer, because I thought I might do something wrong and cause irreparable damage,” she says with a note of bemusement. “My fear made me afraid to try. The seminar took the mystery out of computers. When I returned home after the program, I dismantled our home computer and assembled it. And it didn’t even cross my mind to back away from installing a new CD burner my family bought. It’s a small thing, but it’s a huge change for me.”

According to recent surveys, the percentage of science and engineering degrees awarded to women is increasing overall, while the percentage of computer science degrees awarded has decreased dramatically. In the mid-to-late 1980s—when personal computers were
first being introduced to homes and public interest in them was at its peak. 33 percent of the students enrolled in the undergraduate computer science program at the University of Waterloo were women. By 2000, the percent had dropped to 20 and today it stands at 13.

Fewer girls are applying to computer science programs, notes Graham, and more girls are dropping out of them. She cites a number of reasons for this. "It's the unappealing image of the computer science geek," she says. "It's a lack of confidence. It's knowing you will be in the minority if you take the course. It's not having enough female role models."

Emily Splug, a grade 11 student from Loretto Central School in Saskatchewan, confides that despite having an aptitude for mathematics, she never considered pursuing a career in computer science prior to attending the Waterloo seminar. "I thought it was a boring, antisocial and prettily limited field," she says. "I just thought computer scientists were people who fixed computers. I know now that isn't the case. You can work in just about any area with computer science."

After the Waterloo seminar, Emily decided she wanted to take a computer science course in high school. Her school, however, is so small (comprising kindergarten to grade 12), it has only 90 students in total that it has few specialist teachers and none with the necessary skills to teach a computer science program. But Emily wouldn't be deterred. Her principal suggested that she enroll in an Internet-based correspondence course, which she did. Emily says she loves developing graphics but admits that programming can be a bit tricky. When she goes to university, she plans to take computer science, even if it is just as an elective. "Computers are fun," she says. "And you can't get far today if you don't have computer skills."

According to data from Statistics Canada and the Computing Research Association, fewer girls and women are enrolled in computer science at all levels than men and boys, and fewer women than men teach computer science, with women holding only seven percent of all full professorships in computer science in Canada. In the workforce, women represent only about 25 percent of computer professionals across the country. "The lack of gender equity is such a problem," says Graham, a former computer science teacher in Arthur, Ont. "That programs like ours need to be offered across Canada to young women in the early years of high school, when students begin to make decisions as to what university programs they'll apply to."

The dwindling percentage of women in computer science could in part be a result of some fundamental problems, according to a number of Canadian studies on the subject. It has been reported that girls, particularly from lower socio-economic groups, have less access to computers and the Internet at home than boys, and that girls use computers in different ways.

Increasing girls' computer use may be required to increase their interest in computer science, but it is not the only answer. After all, computer science isn't about surfing the Internet or playing video games. It is a mathematics-based study that has applications in every high-tech field. The analytical skills required to develop hardware, software and graphics can be applied to a variety of disciplines. For example, one specialty, called bioinformatics, combines the latest ideas in computer science with new biological data to help find novel therapies for diseases. The Human Genome Project is one example of the work being done in this field.

Celeste Latulipe, who is taking her PhD in computer science at the University of Waterloo, helps to run the seminar. She maintains that computer science is a creative process. "People often view computer science as a rigid, black-and-white, right-or-wrong discipline and believe that there's no creativity involved," she explains. "With computer science there is lots of creativity. It lies in developing programs and hardware environments."

Latulipe didn't choose to go into computer science out of high school. In fact, it wasn't until she was half-way through an economics degree that she discovered computer science and quickly became elective, that this was the career she wanted to pursue. An enthusiastic 10-year-old mother of two young children, she is passionate about her research and wants young girls to know that computer science is a rewarding field with the flexibility to balance both work and home life.

The women who run the seminar want the girls to see science as a role model that is accessible and whose careers are attainable. In fact, providing the girls with role models is an important aspect of the seminar. During their week in Waterloo, the girls meet women at various academic stages, enabling them to grasp how women with a mathematical aptitude can develop into computer scientists.

Elodie Fourquet is another passionate lecturer from the Waterloo seminar. She came to Canada from France in 1998 to study physics and improve her English. Being mathematically gifted, Fourquet had been encouraged to take high school courses that would help her to prepare pure maths and sciences in university. It was through her electives that she discovered computer science. She had always been interested in fine arts and for her electives enrolled in some art courses, one of which focused on computer graphics. Her interest in computer grew, and in second year, she took a programming class. It wasn't until then she was hooked. "When I saw the utility of it, I said, I'm ready to do this full time," she recalls today. Fourquet is in the second year of a master's degree in computer science, specializing in non-photorealistic rendering, a form of computer graphics programming. "The program I ran in to allows me to combine physics with graphics, which requires a lot of math -- and art."

Girls attending the seminar don't spend every day working on the computer. They experience campus life and go on various outings with their instructors -- from plays at the Stnford Festival to rock climbing. They gain independence and learn that they will be able to cope if they attend university away from home.

The seminar, which was launched in 2002, initially enrolled 40 young women. In 2003, the Imperial Oil Foundation committed to providing $1 million to the University of Waterloo over five years to fund professional development for teachers and the newly named Imperial Oil Seminar in Computer Science for Young Women. (Each year, $140,000 of the contribution goes toward covering the costs of the seminar and the transportation and accommodation of the students.) The gift has allowed the seminar to be expanded to accommodate 96 students at two week-long sessions.

"At Imperial Oil, we are committed to building a diverse and healthy workforce," says Barbara Heydak, president of the Imperial Oil Foundation. "By helping draw more women into the technology and science fields, we believe we are making the best possible investment in Canada's future.

There is competitive to attend the seminar -- last year, 800 girls applied for the 96 spots. The girls who take part in the program are accepted partly because of their academic performance. They must have a good math mark, but geography is a consideration too. At least two girls are accepted from every province and territory for each seminar. "The number of applicants shows that there is a real interest in a program like this," says Graham. "We couldn't go wrong with whichever we chose."

Betty MacArthur is a grade 10 student at P.W. Kaiser High School in Fort Smith, N.W.T. "I never felt that boys were better, just more interested in computers," she says. Betty has always been a strong math student, but she had little exposure to computer science. When her math teacher suggested she apply to the Waterloo seminar, she thought it would be "a waste of time." Betty, an accomplished birchbucker who this year competed at the Arctic Winter Games, and the Waterloo seminar completely changed her future career choices. "I'm a computer geek," she says. "I'm not sure what I could do for a career."

The experience also helped her realize that her education and understanding of mathematics was not as good as that of the other participants. Betty had worried that because of limited resources and isolation, her education might not have been as good as the
When my son, Gideon, was about three, I began to realize that he was somewhat—actually, very—clumsy. Things went flying in his wake. He could knock things fell down or become dislodged from wherever perch he happened to be on. And he showed no sign of the sense of self-preservation that is instinctive to most of us.

Visits to playgrounds were anxiety-filled events for him and me. While other parents watched from a bench as their three- and four-year-olds mounted the baby slide by themselves, one of us would be following Gideon up the seven or eight steps, knowing that if we didn’t have a good chance he and the slide would part company, and he’d hurtle downward onto the unsuspecting children behind him.

Despite the challenge presented by the baby slide, Gideon deemed it “boring” and begged to be allowed to go on the “big slide.” We held off until he was four, one day when Gideon and I were at the park alone and it was fairly quiet, I gave in. After all, the best way for him to get over his clumness was to spend time tuning his gross motor skills, and, besides, children younger than he was frequently present on the three- to four-flight slide.

It was a nerve-racking trip up. The steps rose at a steep angle, and I don’t like heights. But we made it to the top, where I ensured that Gideon was seated properly for the downward journey—legs straight out in front of him, hands away from the sides, sitting upright. As I got up, I felt a surge of relief, feeling that the opportunity for mishap was past. But it wasn’t. Halfway down the slide, Gideon suddenly went flying over the edge. Fortunately, sand cushioned his fall and his only injury was a bloody nose. But it certainly was an occasion to be terriﬁed of, and for a while we stayed clear of the big slide.

It was the following year that I realized the danger that ponds posed for Gideon. We were in Toronto’s Riverdale Park with my cousin and his family. There was a pond at the bottom of the hill, and her children and mine started to run toward it. I set off in pursuit, but my cousin told me not to worry, they’d be ﬁne, and gently suggested I was being overprotective. “Yes,” I thought. “She’s right.” So I stopped and watched from a distance. The children arrived at the pond and came to a halt at its edge—well, all except Gideon, who wasn’t able to stop himself in time and went straight into the muddy March water.

That wasn’t the only time Gideon fell into a pond. Once in kindergarten he was invited to play with his friend Shannon. At the end of the afternoon, Shannon’s mother returned him—wearing Shannon’s clothes (dark pink pants and a fetching turban tied with pink roses). There was a fish pond in their backyard, and Gideon had managed to fall into it. Shannon and her other friends played in the backyard all the time, her apologetic mother explained, and they’d never come close to falling in.

The young Gideon on a bicycle was a sight to behold. He could balance on a bike and propel it forward, but he didn’t seem to be able to control where it went. Consequently, he spent a lot of time bumping into things and, if not actually colliding with people, then at least coming to a halt fractionally off his edge. When he was about seven, we decided that we should make a concerted effort to help him learn to ride a bike safely. With that in mind, we went on a cycling trip on Quebec’s Île d’Orléans, which runs for 200 kilometres through the Laurentians on a bordered railway right-of-way.

We outfitted Gideon with as much protective gear as we could without inhibiting his ability to ride—gloves, knee and elbow pads, wrist guards, padded bike-seat, and helmet—and set off energetically that first morning. Progress was painfully slow. Gideon would mount his bike, ride for about 10 metres and then suddenly veer off into the bushes on one side of the trail or the other. Cyclists approaching would look in alarm and stop to help him. But being well padded and quite unused to falling, he would be up before they reached him and ready to try again. Persistence paid off. By the end of the trip, he had learned to ride and could ride for many kilometres without stopping. Then there was the challenge of learning to moderate speed. But that’s another story.

It used to be that friends would tell me joyfully that Gideon would overcome his clumsiness in time. He’s 13 now and continues to have what his grade 4 teacher referred to as “physical misadventures.” A few months ago, for example, he went on a well-supervised camping trip and managed to fall down a seven-metre cliff. I suppose the one good thing to say about Gideon’s frequent falling is that he’s learned how to land.

Reading Tim Hanso’s essay on safety in this issue of the Review got me thinking about the fact that despite Gideon’s mishaps, his mishaps have never resulted in a clumsier limb or even stitches. And I have to say that part of the reason for this is that I work for a company that places tremendous emphasis on safety, and identifying risks and finding ways to deal with them (and helping Gideon do the same) has become ingrained in me. And I’m pleased to report that last year, when Gideon decided to build a “pig chair” for an art project and needed to use the electric jigsaw, he managed to do so without incident (albeit under watchful eye).

I should add that Gideon’s interesting physicality is balanced by many attributes that he brings to good sport and good nature—give him the piece of this to be written.—Sandra Landsley

In Closing

Tales of a Clumsy Boy

education received by people in the south. But she found that there was no basis for her fear. “The program gave me confidence,” she says. “I realized that I can compete with students from anywhere in Canada.” Betsy now plans to take computer science at the University of Waterloo after she graduates from high school and is currently sharpening her computer skills independently with the help of her high school instructor and training modules sent from Alberta.

“It’s important to understand what women bring to the table,” says Lantelme. “They bring a different perspective to program development particular to the needs of solving problems. If a computer program is being developed for the public market, the ideas behind that product must reﬂect the interests of those who will use it.” And in both business and personal life, women are big users of software.

Building up the critical mass of women in computer science is essential in order for the program to be self-sustaining. And if the first step to building that critical mass is to raise awareness and change perceptions, then the Seminar in Computer Science for Young Women is one way to success. In an informal survey, girls who attended the seminar in 2002 were asked at the beginning if they planned to take computer science courses at school. Of those whose schools offered computer science, 44 percent and they planned to. By the end of the seminar, the number had risen to 81 percent.

But the real aim of the program is not about getting all the participants to go into computer science in university. “It’s about changing the image that computer science has among girls at the grassroots,” Graham stresses. “If these girls get the word out around their schools that computer science is a viable career option for women, then we have accomplished our goal.”

Sitting at the computer in her Cape Breton home, Lorrie York scours through the list of courses she can take in university next year. She says she wants to be an engineer but isn’t ruled out computer science just yet. She’s alerted to an e-mail that has arrived from the Northwest Territories. It’s a message from her roommate at the seminar last summer. “If I hadn’t been to Waterloo, I wouldn’t have met anyone in my hometown who could give me a good picture of what it means to specialize in computer science,” she muses. But the seminar enriched her life far beyond providing her with an understanding of computer science, she says. It gave her the conﬁdence to look for challenges. “I know now that whatever I choose to do, I will be doing something that challenges me,” she says. “And I know that whatever I decide to do, computer will be part of it.” And that is a fact that excites her.

"A computer program is being developed for the public market, the ideas behind that product must reflect the interests of those who will use it," says Lantelme. And in both business and personal life, women are big users of software.

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EDITOR/Sarah Lawley
ART DIRECTOR/Carol Young/Ireland + Associates
PRODUCTION COORDINATOR/Donna Berger
RESEARCHER/Charles Rowland

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