Where it all began

For Imperial the place was Ontario and the time was 1880. A lot of things have happened since.

When Canadians think of the oil industry nowadays, they think of the Prairies, or maybe the Arctic, or the Arab countries, or Texas, or Venezuela. But Ontario? Never.

And yet Ontario is where the modern oil industry began more than 100 years ago, in the gooey swamps that were known as the Lambton gum beds. A company called the International Mining and Manufacturing Company was making some kind of product from southwestern Ontario’s oil-saturated earth around 1850. Before the decade was out a man named James Miller Williams was producing so much oil from his 100-foot wells that an early newspaper said one of them was overflowing at the rate of 300 gallons an hour. What didn’t overflow went to Williams’ refinery, where he made a product known as ‘burning oil’ for the lamps of the time. He sold it for $1 a gallon, which was 25 cents cheaper than whale oil.

In those days all you needed to get into the oil business was guts, and plenty of people had them. When Hugh Nixon Shaw struck oil on Jan. 31, 1862, in a well at Oil Springs that flowed at the unprecedented rate of 2,000 barrels a day he started a frantic oil boom. Men began sinking wells wherever their hunches directed them, with no thought of what they would do if they found oil. Many of them did, and the oil they discovered flowed away down Black Creek and the Sydenham River out to Lake St. Clair in a colossal slick that is said to have wasted a million barrels of oil. The skipper of a schooner that sailed through it reported later to the ship’s owner in Kingston that petroleum was flowing on the river a foot deep. The shipowner – his name was John Noble – took off at once to join the rush. Those wells flowed almost without control for more than a year and then, within a few days, they all dried up. While they flowed, there was more work than the local labor force could handle; when they stopped, everybody was out of a job.

But new wells were drilled, and more oil was found, and the cycle continued. To get out teamsters hauled it on skids over a track that was described as a mudhole 12 miles long and of unknown depth. The road that replaced it in 1862 was made of planks, and at one time there were as many as 300 teamsters hauling 16-barrel loads out to the railroad at Wyoming, for $1 a barrel. Some of the barrelled oil was floated down Black Creek and the Sydenham River to be hoisted aboard schooners and sailed to ports around the lakes.

Most of it was exported to Europe as kerosene, but after 1870 that market began to disappear, displaced by a cleaner-burning kerosene refined from oil produced in Pennsylvania. The Canadian market could not possibly absorb all the oil Ontario’s
wells produced, yet Canadian producers still pumped every drop their wells could be made to yield. The result was inevitable—an oil glut that saw Canadian crude, which had fetched a dollar a barrel in 1870, drop to 10 cents in 1876. The industry faced disaster.

In this desperate situation, Imperial Oil was formed by 16 men who pooled the resources of seven companies to form the Imperial Oil Company, Limited, capitalized at half a million dollars. In those days people got around on saddle horses or in coaches and buggies in summer, and cutters in winter. The roads were dreadful, what roads there were. There were a number of short railways in eastern Canada, but no CPR. John A. Macdonald was prime minister and Canada was 13 years old. Sailing ships travelled the Great Lakes, as well as a few side-wheelers in protected waters.

Toronto had 56,000 people; Winnipeg had 8,000. Some of the people of the time thought those 16 men in London were foolhardy, but it turned out that they were just what the faltering oil industry needed. Their pooled resources made Imperial the biggest oil company of the time, and it enabled them to follow practices in buying, refining and marketing oil products. They brought stability to a wildly fluctuating industry.

Within a year Imperial was selling petroleum products out of its own office in Winnipeg and through agents in Montreal. Imperial got to British Columbia before the CPR did, and the company opened an office in Halifax before the 20th century began.

The creation of Imperial seems to have been one of those events that happened in just the right way at just the right time. It was big enough to bring order to a situation that was all but chaotic from gross overproduction, imaginative enough to foresee the possibilities of growth as the country expanded, and sufficiently vigorous and enterprising to go after the business it saw available. It survived the declining oil production from Ontario fields—the same fields whose overproduction led to the formation of the company in the first place—and was soon refining more foreign crude than domestic. It provided steady employment, paid good wages, and began building a reputation for integrity and enterprise. It even hired a man to develop a way to treat the sulfurous, evil-smelling Ontario crude so that it could compete with the sweet oil from Pennsylvania. The man was Herman Frasch and he completed the assignment successfully in 1895.

Imperial hired its first full-time chemical researcher 29 years later, when it started Canada’s first oil company research facility in 1924. It’s still the biggest, with laboratories in Sarnia and Calgary. At first the research department aimed only at improving the processes then used, but it gradually developed new processes, some of which spread to refineries throughout the world. It was Imperial’s laboratory in Sarnia, for example, that developed the phenol process for treating non-premium crude stocks to extract premium lubricating oils. The process is used worldwide now.

The Sarnia lab also created an additive that keeps furnace fuel oil flowing in winter. Without the additive, the stuff turns to jelly in cold weather and can’t be handled by pumps. With the additive—it’s known as a pour point depressant—the oil runs freely. The additive is sold throughout the world, and manufactured now in both the United States and Europe as well as in Sarnia.

The lab’s 265 people work constantly to develop new products for existing uses, but they also work in advance, to speak, creating oils and greases that permit the development of machines that could not operate on older products. For example, Imperial’s Sarnia lab developed a diesel lubricant oil five years ago that lasts three times as long as the railways hoped it would last, and two of every three Canadian diesel locomotives now use it. But today, among all the other projects at the lab, work is going forward on advanced diesel lubricants that will meet the anticipated requirements of locomotives that haven’t even been designed yet.

The chemists, engineers and technicians of the oil industry have long since transformed it from a time-consuming stop-and-go process that required refinery vessels to be emptied and cleaned before they could be re-charged with another batch, to a virtually automatic process that handles immense volumes of petroleum in a continuous stream. They have developed ways to transform low-quality hydrocarbons into new and desirable compounds—virtually changing sows’ ears into silk purses.

And partly as a result, the oil industry doesn’t have much in the way of sow’s ears any more. A refinery is virtually a closed system—you pump crude oil into one end and take petroleum products or petrochemical feedstocks out the other. The products can be dangerous if they are improperly handled, and that is another reason the system is closed—good housekeeping requires it. Consequently a modern oil refinery releases very little
material that can contaminate watercourses.

The engineers and researchers at Sarnia also spend their time devising and improving the systems that treat these wastes, and have been doing so for years. Thirty years ago an Imperial Oil chemist named Alex McRae was a common sight on the St. Clair River. In a converted lifeboat called The Juicy Scoop, he patrolled the river taking water samples and analyzing their phenol content. As a result of McRae’s early work, Imperial pioneered the application of a biological oxidation process to reduce phenols in refinery discharges — the process uses bacteria that live on phenols, converting them to carbon dioxide and water at a design rate of 800 pounds a day. Since Imperial began its phenol-reducing program in 1953 it has cut phenol emissions by more than 90 per cent. At the same time refinery capacity has almost tripled.

In 1880 Imperial didn’t even have a refinery at Sarnia. The company was formed in London — then Ontario’s fourth-largest city — and its refinery was located there. The hazard in those days was fire; most refineries were fairly elementary distilling plants with open fires to boil the crude oil into fractions. There were 52 refineries in London in 1882, and fires were an almost everyday occurrence — one refinery had three within five months. Imperial’s refinery was no exception; it was struck by lightning on July 11, 1883, and burned down.

The company thought of rebuilding in London, but the city council was getting pretty tired of refinery fires, and Imperial moved instead to Petrolia, which was closer to the oil fields, anyway. There they built the biggest refinery in the country, it employed 500 men and covered 65 acres. The company’s operations included all the phases of the oil industry: it pumped oil from its own wells, piped or hauled it to the refinery, refined it into products, shipped the products in barrels made in its own cooperage shops from wood cut on its own wood lots. It even made its own square oil tins, complete with faucets and screw caps.

Those cans made a strong impression on the Toronto Globe, which ran a four-page article on June 24, 1893, called ‘Petrolia and the Oil Industry Through the Camera’. The newspaper said the cans ‘place every one in the position to have the very best oil can at a merely nominal price, which can be readily filled over and over again.’

The article was lavishly illustrated with photographs of Imperial’s barn-sized jumbo agitator (‘largest in America’) where distilled oils were washed and blended, the ‘jerker wheel’ that could pump 151 wells at once (and had an exact counterpart ‘not that it is worn out, but to have in case of an accident’), the refinery looking southwest, the refinery looking northwest, the president of Imperial, the vice president, the vice-president’s residence (now the Englehart Memorial Hospital). The whole thing looks quaint and old-fashioned, but the men are strangely contemporary-looking — bushy mustaches, long sideburns, beards.

The tins cans that so bemused the Globe reporter in 1893 were being filled over and over again throughout the world. They carried Imperial kerosene to India, China, Japan, Australia and South America, as well as to the cities of Canada from Halifax to Victoria. In that year Imperial made dozens of fuels, oils, waxes, greases and tars and had the contract to supply all the government lighthouses with its Headlight burning oil, a contract it had already held for 10 years.

Canada was yet to face its greatest surge of growth when the west would open up and the settlers pour into this country through Halifax and Montreal. The country was steadily growing, nonetheless, and to meet its needs Imperial had to grow, too, or collapse before the competition of foreign marketers. The company sought, in England and Canada, the capital it needed to expand, but without success. Finally on July 1, 1898, it turned to an American firm whose offer it had rejected several years before — the Standard Oil Company. By selling a majority interest, Imperial got the capital it needed to survive and expand. The following year, On Feb. 23, 1899, Imperial took over all of Standard’s Canadian assets — including the Eastern Oil Company in Nova Scotia — and became a nationwide company for the first time, with its own offices in all the populated regions of the country.

By then Imperial had moved its refinery operations to Sarnia to be near water transportation. The company bought the 300-barrel-a-day Bushnell refinery which itself was something of a venerable institution even then — it began as the Dominion Oil Co. in 1871. Imperial expanded the refinery’s capacity to 900 barrels a day, making it the biggest in Canada — a distinction the refinery still holds.

The site covers more than 1,400 acres and has about 30 different processing units of varying sizes. Crude oil goes in at one end at the rate of 126,800 barrels a day, and some 800 petroleum products in a number of different grades come out the other.
In between nobody sees them, but their passage is scanned, monitored, recorded and controlled by two of the most sophisticated computers in the world, each of them worth half a million dollars. The entire plant is so flexible that it could switch production virtually overnight to meet changing market demands.

The Sarnia refinery employs 1,100 men and women, but the total employment of Imperial Oil and its subsidiaries in Ontario – not counting dealers and agents or their employees – comes to more than 8,000 people. The company has never had a work stoppage in Ontario. Ever since 1919 Imperial and most of its employees have settled their differences through a system of Joint Councils where representatives of management and labor meet to discuss policy on such matters as wages, working conditions, holidays, fringe benefits and all the other matters that come up in the workaday world.

The council concept was partly the brainchild of Mackenzie King, who was later to become Prime Minister of Canada. He worked it out with an industrial relations scholar named Clarence Hicks and applied it to settle some of the bloody skirmishes in the labor-management wars that racked the United States half a century ago.

It worked so well in the United States that Imperial adopted the idea and proposed it to the Sarnia refinery workers in an emotional meeting at the Sarnia Board of Trade building a week before Christmas in 1918. The proposal was unanimously adopted and praised in terms that brought Imperial President W. J. Hanna close to tears. It has been working ever since, the foundation of a labor-management harmony that is unparalleled in Canadian industry.

And yet when most people think of Imperial Oil, they don’t think first of labor-management forums or industrial harmony. They are far more likely to think of hockey. For the lifetime of most Canadians now living Imperial and hockey broadcasting have been synonymous. Imperial has sponsored the game ever since Nov. 9, 1936, when there were eight teams in the National Hockey League: the Toronto Maple Leafs, the Montreal Canadiens, the Montreal Maroons and the New York Americans, comprising the Canadian division; and the Detroit Red Wings, the New York Rangers, the Boston Bruins and the Chicago Black Hawks, of the American division.

Imperial hasn’t always been the sponsor. For five years from 1931 to 1936 General Motors sponsored the broadcast, and when they dropped it, Imperial was waiting to pick it up. The company has sponsored the games ever since, and its 35 years’ association is a record in the annals of network broadcast advertising. During that time, Imperial has sponsored 3,635 games on radio and television. The three stars chosen at every game originated with Imperial’s old 3-Star brand of gasoline. It has always been the most popular broadcast in Canada – even fans who go to the games in Toronto take transistor radios so they can follow the action.

But when a motorist is getting low on gasoline, is he likely to think of Imperial Oil in terms of hockey? Hardly. He is more likely to think of an Esso station and to see the dealer as the embodiment of Imperial. In a sense, he is, for it’s at the pumps that the customer meets the company. Yet most Esso dealers – more than 60 per cent of them in Ontario – are independent businessmen who own their stations and operate them through agreements with Imperial that generally run for five years. A small number of these stations are financed with mortgages held by Imperial.

Many stations are owned by Imperial Oil, though, and operated by dealers with leases. In some cases these stations are substantial businesses that reward their operators with incomes that Imperial estimates to have gone as high as $50,000 a year. A few outlets are direct extensions of the company; owned by Imperial Oil and operated by the employees of an Imperial subsidiary. These are the big service centres, whose investment in property, buildings and equipment are very high. There are 13 such outlets in Ontario.

The large-volume outlets are increasing in number, and the small outlets – some of them merely pumps outside a country store – are disappearing. In fact, since the early 1960s the number of Esso outlets in Ontario has dropped by more than 350 as outmoded and unprofitable outlets have been closed or consolidated into newer, more efficient stations located more conveniently for motorists.

The number of outlets has gone down, and the number of automobiles and drivers has gone up, yet service has improved as new ideas in the selling of motor oiling products have evolved.

For motorists aren’t all alike, and if you want their business you have to cater to their needs. Imperial does this with a variety of stations – there are enormous service centres with diagnostic clinics, repair services, virtual department stores of motor-

The Imperial Cornwall delivering products to Brockville on a lazy summer day in the late 1940s.
ing accessories, and rank after rank of gas pumps, but there are also bare-bones outlets where you can't even get your oil changed.

The man who wants the full range of services isn't going to choose one of those. He wants a station where he can have his car properly serviced, and where he can pay with a credit card. But there are motorists who don't care about such things, drivers who are more interested in price than service, in varying degrees.

There is, for example, the driver who shops around for gasoline, but likes to get his windshield wiped. He needs lubricants, and he enjoys buying dressy accessories. Imperial appeals to him through its new chain of Econo stations where gasoline is a few cents cheaper, service is fast and efficient and accessories, small spare parts and household items are available. You pay in cash and there are no mechanical services.

Some people like to save a few cents on the price, but they like quick service and they want to stick with the familiar Esso name. To see if the company can increase its sales to this particular kind of buyer, Imperial is conducting an experiment with Esso self-serve stations where the driver pumps his own gasoline and can pay with his Esso card.

And there are some people to whom price is the only consideration, who will drive miles out of their way to a station selling the cheapest gasoline around. They don't care about service levels and facilities available at the outlet. Imperial wants their business, too, and has a few of the bare-bones outlets that can compete in such a market.

Gasoline marketing remains fiercely competitive, and in all the maneuvering for advantage that goes on, Imperial's marketers try to make sure that their operations serve the varied needs of all their customers. Because motorists fall into different categories, gasoline marketing experts believe that the motorist who wants service won't abandon the dealer who provides it to go to a place where none is available. Therefore, an Econo station, say, might be located in the same business area as an Esso station. The low-price station will get its customers from motorists whose interest in price alone probably keeps them away from the full-service station.

But Imperial's operations in Ontario extend far beyond the marketing of gasoline and other motor-ing products. Motor gasoline is Imperial's principal product, but if all the company's other products—industrial oils, heavy fuels, special greases, diesel fuel, farm fuels, home heating oil, aviation fuel, literally hundreds of products—are combined, they...
outstrip motor gasoline sales by half as much again in Ontario. And there's more. For 14 years Imperial has been a major manufacturer of petrochemicals derived from crude oil, and its plants at Sarnia have attracted other factories that can use Imperial's chemicals in manufacturing.

Today Imperial operates 12 petrochemical plants at Sarnia with a total value of $97 million. More than 600 people work in them, turning out 50 products in a number of grades. Last year Imperial's chemical sales reached $92 million, and the largest portion of this amount originated in Sarnia.

Before entering the petrochemical industry, Imperial had a long history of supplying refinery streams to other companies for the production of petrochemicals. Its expertise in this field was a national asset during World War II when Imperial formed a separate unit at the request of the federal government to create a synthetic rubber plant that would be able to replace the supply of natural rubber cut off by the fighting in the Pacific. When the war ended the rubber plant became the Crown-owned Polymer Corp.

Imperial's head office was still in Sarnia then, but the executive offices had been in Toronto since 1926 in an imposing building at King and Church Streets that had a covered service station at one end with an attached lounge where lady motorists could relax and write a letter. The building's cornerstone was laid on April 24, 1926, on the site of the Court House, whose own cornerstone had been laid 102 years earlier, to the day. Sharing the block with the Court House was Toronto's first jail, and in the space between the two was the gallows where Samuel Lount and Peter Matthews were hanged for their part in the 1837 rebellion. Imperial sold the building and moved to its present address in 1937, which became the company's head office in 1961. Because of the head office's height and location at the top of a plateau north of the lakefront, it was a vantage point for naturalists who used its observation gallery to make bird counts during spring and fall migrations.

Imperial's new building also created one of 1927's most appealing newspaper feature stories when a widow named Isabel Massie declined to sell her house and, for a time, blocked construction of Imperial's new building. She never did sell, and Imperial had to shift the position of its building on the restricted lot (they got a much bigger parking lot, as a result). Mrs. Massie bore Imperial no grudge—she was polite and hospitable, but she refused to move from the house she first entered as a young bride. When she died in 1965, Imperial acquired the property.

Mrs. Massie wasn't the only neighbor affected when Imperial built its head office. Right next door is Deer Park United Church, and when it was realized that the strong winds sometimes created by a tall building would interfere with their chimneys and heating system, Imperial offered to hook the church into the new building's heating plant, and the church agreed. And ever since the building opened, its parking lot has been used by members of all the neighboring churches, a great convenience in an area where parking had always been a Sunday morning problem.

When Imperial moved in, the neighborhood was residential and fairly central in Toronto. Today there are towering new apartment buildings, smart town houses, renovated old homes and brand-new office buildings, and the centre of the city has moved miles farther north.

To many people in Ontario, Imperial Oil is best known as the operator of a fleet of lake tankers. Imperial ships have been plying the Great Lakes for generations, ever since the company bought three barges in 1892 and, a year later, a tug to tow them. In the 71 years since then Imperial's record on the lakes has never included a serious spill, and housekeeping is as strict as any country wife's: no garbage is ever dumped overboard, and oily ballasts are discharged only into shore facilities. Despite the care that is taken, minor accidents occur from time to time. The only time Imperial was ever involved with a significant oil spill on the Great Lakes occurred 20 years ago and not from a tanker. In 1951 a million gallons of heavy oil suddenly drained from a storage tank into Georgian Bay at Parry Sound. Imperial went to work on the spill immediately, containing it with booms and even scooping up the oil. The company repainted every boat touched by the oil, replaced and repaired docks of summer cottagers, hauled away contaminated beaches and replaced them with clean sand, and even steam-blasted the rocky shorelines. The cleanup cost more than a million dollars, and there is no evidence today that the spill ever happened.

Today four lake tankers carry Imperial colors on the Great Lakes, delivering products to lake ports during the shipping season from April through December. The heyday of the lakes followed the discovery of oil at Leduc, Alta., in 1947. A pipe

With Defassa, Imperial pioneered the use of oil in blast furnaces at Hamilton in 1969. Now Ontario uses 30 million gallons a year this way.
line was built to carry the oil to Lake Superior, and tankers took over from there, carrying it to the refineries at Sarnia. The biggest tankers of them all—the Imperial Leduc, Imperial Redwater and Imperial Woodbend, all named after new oil discoveries—were able to make the round trip from Sarnia to the pipe line terminus at Superior, Wis., in five days. Each ship carried 115,000 barrels of oil, enough to keep Imperial's Sarnia refinery supplied for less than three days.

Eventually the pipe line was extended to Sarnia, making uninterrupted deliveries of crude oil possible all year round, and the need for the vast tankers ended. But large amounts of oil products are still carried by Great Lakes tankers, although product pipe lines carry more. The pipe line that runs underground from Sarnia to Toronto operates every day of the year, transporting oil products at a steady three miles an hour come storm or cold or heat of day, delivering its contents to 10 terminals along its 243-mile length, in quantities the tankers can't match. In 1970 the pipe line carried just under 24 million barrels; the four lake ships carried a little more than 71 million. A virtual pipe line on wheels will be running through Ontario next fall when the world's first oil unit train begins delivering heavy fuel oil to the Atomic Energy of Canada heavy water plant at Douglas Point on Lake Huron. A unit train is a train that carries one substance only, and this one will carry 714,000 gallons of oil initially on every three-day round trip.

Most of the oil refined in Ontario comes from the prairie provinces, the lion's share from Alberta. Ontario still produces oil from the region where it all started so long ago, but those fields produce a corrosive crude that must be thinly diluted in the oil that comes from Alberta before it can be handled.

And even that production is dwindling. They still drill for oil in Ontario, but nobody expects to make a big discovery; Alberta is still the place for that, and the Arctic and the Atlantic shelf hold great promise.

Ontario, which once sent oil products all over the world, now cannot supply even a hundredth of its own needs. Ontario consumes oil at the rate of 371,000 barrels a day—the region's economy could not survive a day without it. Virtually every drop of that oil comes from the Prairies, and guess who brings in better than a third of it, the largest single supplier of one of Ontario's most essential substances?

Why, bless you, Imperial does.
PARLIAMENT

Know what this venerable place does to disparate Canadians who come to visit? It turns them into patriots.

by William Cameron / photos by Freeman Patterson

In the centre of the floor of the Parliamentary Library, just behind the long wooden counter where the leather-bound books are handed out, there is a large white marble statue of Queen Victoria. The expression on the Queen's face is peculiar, mildly impassive, and this statue sums up something distinctly Canadian at the centre of the Parliament Buildings. It is a kind of smooth and solemn marble metaphor of the Canadian character - solid, grave, but with little absurdities hidden behind the public face.

For the statue of the Queen, which looks as though it had actually grown from the floor, in heavy regality, to give the place substance, came to Canada in a peculiar way. It was carved by the English sculptor Marshall Wood for 2,000 guineas - about $40,000 today - on order from the Canadian legislators, in 1871. But the Canadian legislators were too Canadian to trust any damn fool artist with all that marble and all that money without making sure of what they were getting. They demanded that Mr. Wood come to Canada personally, and bring his statue with him, and that he hang around until everybody agreed that it was a good likeness, and respectful, and valuable for money. And when workmen managed to damage the right arm of the statue while hauling it around the building, the administrators put the screws on Mr. Wood: 'It being expressly understood that in the case of the statue of the Queen ... the right arm must be replaced in a thoroughly artistic and satisfactory manner in marble of the same quality and any other defects arising from the accident to the statue be made good ... and that two hundred guineas be retained until the completion of the work.' (Report of the Library Committee, Commons Journals, April 14, 1871.)

Mr. Wood, no doubt, went back to London talking under his breath.

At 8:57 p.m. on the evening of Feb. 3, 1916, while the Commons was in session, fire broke out in the reading room in the Centre Block. Seven people died (two of them got out safely but went back for their coats) and almost the entire structure was lost; the Ottawa Fire Department managed to save the parliamentary library, and only managed that because the librarian on duty, displaying some gallantry, shut the massive iron doors before the flames could reach it. Senate employees rescued several paintings, the Speaker's chair, and the mace.

The library's serene Queen Victoria
Arthur Beauchesne's Canada's Parliament Buildings notes: "A Royal Commission consisting of Mr. R. A. Pringle of Cornwall, a former member of the House of Commons, and Judge D.B. MacTavish of Ottawa, was appointed to investigate into the cause of the disaster. In their first report, after taking the evidence of two score witnesses, the Commissioner's stated that there were many circumstances that led to a strong suspicion of incendiaryism. However, they promised to deal with the entire subject of origin in a fuller report but no such document was ever forthcoming. Hence the cause of the fire is a mystery to this day. The Centre Block was rebuilt by 1920, at a cost of $10,000,000.

Main corridor in the Centre Block

A young buck rising in the Liberal Party, walking past the lighted Peace Tower at night: 'I tell you, whenever I look at that thing, I get excited - there's a feeling of Canada to it, a kind of solidarity, reassurance, and I feel that there is no way the country could ever really be in danger. It just looks so damn fine.' He is a very hip young politician, but there is emotion in his voice.

That is what it is all about, and that is why the buildings are there - emotion. The buildings convey a feeling of grandeur, people walk down the marble floor of Confederation Hall past the main doors and think to themselves, this is mine. Spectators gather in Confederation Hall just before the question period, at two o'clock in the afternoon, on their way into the public gallery overlooking the House of Commons - a mixed lot, families and lovers and free-lance, unofficial political analysts - but the place is silent. No wisecracks. And as the Speaker, in his three-cornered hat, walks by in state on his way to the throne on the Commons floor, some of the people put their hands to their temples in a tentative, instinctive salute. It is not a place for cynics.

In the East Block, a civil servant with a grave voice shows a visitor the room where the cabinet meets. A long, oval table, with leather chairs, and what looks like almost a throne for the prime minister. In front of each chair are two pencils, an ashtray, and a water glass. And a little schoolboy's desk off at the side for the recording secretary.

'It's interesting about this table,' says the civil servant. 'You'll notice that it originally started out round, but as the cabinet got bigger over the years, they kept having to cut it in the middle and add extra sections, and now it's gotten so big it's almost taken over the room.'

And the prime minister's East Block office, unused while Parliament is in session, but soon to come to life over the summer, a color television set in one corner, a carved walrus tusk, a delicate table, paintings from the National Gallery. 'By George,' says the civil servant, peering at a hat stand in the corner, 'I believe that's Jacobean, I declare.'

In most important executive conference rooms, the doors are covered with green baize or felt to muffle the sound; they look like pool tables stood up on hinges. In the East Block, the baize is red. And in a little room just off the cabinet chamber, where the experts sit and wait to be helpful, two old wooden bookcases have been turned into telephone booths. The march of time.

There are always children, everywhere, in swarms, staring at the portraits of the Speakers of the House, and getting in the way of the television interviewers. An elevator full of Girl Guides from Montreal, giggling in their blue uniforms, stops inside the Peace Tower for a look at the big bell of the clock: 'That there's your big bell,' says the elevator operator. 'Ten tons. That's the one we give you to take home.' Hilarity all round. And screams as the elevator drops back down the shaft. One of them whispers to me: 'Mister, do you think they'll let us talk to Pierre?'
The commission of public works of the Province of Canada advertised in May, 1858, for architects to submit plans by August for public buildings - a Parliament building to be flanked by two departmental buildings and a residence two miles east for the Governor in Chief. For the two departmental buildings, the cost was not to exceed $240,000; for the centre building, $300,000. The structures, according to the public works notice, were proposed to be built in a plain, substantial style, of coarser hammer-dressed masonry...

When the question of placing the seat of government at Bytown was first brought up in Parliament, a history of the building quotes one of the members as saying: 'I tell you candidly you might as well send the seat of government to Labrador.'

"You may," says the sergeant at arms to the photographer, "take pictures anywhere but in the government lobby and the Parliamentary restaurant." There is a distinct impression that to bring a camera into either of these two places would be sacrilege. A friend says: "I had dinner in the Parliamentary restaurant once. Okay food. Apparently the place has weird acoustics - like, if you sit at one table, you’re likely to be able to pick up a conversation at some table right across the room. So, if anybody has anything confidential to discuss, they order a couple of ham sandwiches into the office."

The gallery, on the next-to-last day of the Commons session, is jammed and silent. Familiar and impressive-looking faces in the press gallery below; faces you see on the news every night. Beside each chair in the galleries there is a device for simultaneous translation, a long black rod with what looks like a black tin can on the end of it. The tin can delivers either English or French, depending on your needs. The gallery is primarily filled with English speakers today; when the debate turns to French, the black wands go up like grass in a high wind.

But when the politicians are gone, all the action is, too, and there is a different feeling. Standing in the centre of the floor of the Commons, by the Hansard reporters' desks, is like being in an unused church. Old, possibly irrelevant, but, well, awe-inspiring.

"When the elevator was being installed in the south wing in 1950, a solid base was needed," a history of the East Block reports. "In the course of excavation a tunnel was broken into, apparently leading in the direction of the Langevin Block across Wellington Street. Unfortunately, no one explored it before it was sealed. There remains the intriguing mystery of why there should be a tunnel which is not on the plans of the East Block and which has no apparent purpose. It may have joined the East Block and the first departmental building to be erected off the hill. Another theory is that it pre-dated the building entirely, and may have fed from the military buildings to a powder magazine. Perhaps no one will ever know."

"It seems like an act of insanity to have fixed the capital of this great country away from civilization, intelligence and commercial enterprise..." (Viscount Monck, Governor General of British North America, 1865.)

A member of the Press Gallery: "Yes, I guess you could say that this was the most Canadian place in Canada. It really is a kind of distillation of the country. The system takes them all in, members of Parliament, personal staff, secretaries; they are a very distinct type of person, and they believe absolutely in what they are doing. "Maybe they get it from the buildings. Because, you know, you take one look at this place and you know whoever built it built it to last."
the Great Lakes

They have determined our history, our geography, even our climate. They will determine our future as well.

Rick Smith would have you believe he is a pragmatic man not much given to flights of fancy. But there was one night years ago—just a flicker of an eyelid when measured against the quantum of time we’re talking about—when Captain Frederick Smith, master of the tanker Ioelite out of Sarnia, stood on the bridge in the middle of Lake Superior and gazed port and starboard on his world and thought the kind of thoughts that Conrad must have had in the Indian Ocean.

"It was a cold, frosty, incredibly clear December night and every star in the sky was out. We were heading down Superior from Thunder Bay making for Sault Ste. Marie and the canal to Huron. It was quiet and I was thinking that old Superior was in a pretty good mood that night, and then I saw the light of Whitefish Point ahead—almost 120 miles..."
ahead. I couldn't believe it at first. Then I looked around and saw the light on Passage Island at the mouth of Thunder Bay, 70 miles astern. To starboard I could see the light on Manitou Island on the American side, and that's 40 miles away, and to port there was the Michipicoten Island light 20 miles off on the Canadian side.'

Today, Captain Smith is 67, retired from the lakes to be harbormaster at Sault. He has an office the size of a washroom in a dilapidated dockside warehouse, and it is there, sitting at a disconcerting tidy desk, that Rick Smith is thinking back on a lifetime of sailing what may be the best-known natural phenomenon in the world - the massive body of fresh water that sloshes around in the belly of North America.

'I don't suppose I was actually seeing the lights themselves, but rather the hoisting or reflection of them in the night sky. But even so, there aren't many men who've seen all four of those lights like that at one time. It isn't that clear that often. There's a sense of awe and pride in Captain Smith's voice. 'I'm not a religious man, but I stood there and looked around at the stars, and you know, I just had to think there is a superior being somewhere. And then I thought about the early explorers and I figured that they must have had a helluvva lot more nerve than I've got, sneaking up these lakes not knowing what was going to happen to them next.'

And they didn't, of course. When Chauplain found Lake Ontario in 1610 he thought it was the start of a new route to China. He could not probe far into the lower lakes because of hostile Iroquois Indians, but he sent 17-year-old Etienne Brulé up the Ottawa River and across the Canadian shield to Georgian Bay and Lake Huron. In 1612, when living with Huron Indians on Georgian Bay, Brulé reached St. Mary's Falls, the barrier between lakes Huron and Superior, and he paddled down the Lake of the Illinois (now Lake Michigan).

Western man might have known more about the lakes a lot sooner if Brulé had behaved differently. But he left his own people and lived as an Indian, spied on the French for the British, who paid him with kegs of rum, and in 1632 was
clapped to death in a disagreement with an Indian over a girl. The Hurons ate him. But he earned a place in history as an early Canadian Kilroy, because almost everywhere early explorers of the Great Lakes area discovered Brulé had been there first.

In fact, it wasn’t until two years after Etienne Brulé was killed that another white man followed his trail. That was Jean Nicolet, who had heard of a land of hairless men living in the area now known to be the upper lakes. Excited, he announced they must be Chinese, and set out in the inevitable birchbark canoe, clutching a Mandarin robe in damask fabric embroidered with poppies and birds of paradise so he would be correctly dressed when he sat down to dicker with the Chinese merchants. He did a good trade in furs with the hairless ones, who turned to be more Indians, but history doesn’t record what he did with the Mandarin coat.

In retrospect, this now slightly absurd footnote to history is a demonstration of the manner in which the Great Lakes have fired the imagination of western man since Champlain. When it was satisfactorily established that they did not lead directly to China, it was thought they would at least lead straight to the Pacific and California. Seventeenth and 18th century Europe thrilled to fanciful tales of the riches that lay just beyond the sweeping horizons of the lakes—and though the first riches came from the mundane fur trade, the gold and silver and other mineral wealth was there too, to be found in another age.

What is probably the richest vein of silver found in the world hums vertically down from a droplet of land called—Bitingly—Silver Island in Lake Superior’s Thunder Bay. A century ago millions of dollars worth of silver was mined there before the shaft reached 1,300 feet deep and it proved impossible to keep the lake waters out. It is said the last miner to leave, water rising fast, was able to see almost pure silver ore worth around $100,000 in the roof of the flooding shaft. It is still there. No one has yet devised a way to keep the shaft sufficiently free of water for the ore to be mined.

Canada and the United States began as coastal enclaves in the east, but because the lakes were there Europeans were able to forge ever westward; adventurous, curious, rapacious. The Great Lakes area—a basin of some 288,770 square miles stretching from just south of James Bay in the north almost to New York City in the south—is almost as big as Britain and France combined, and is one of the most heavily populated and industrialized regions on earth.

They are so vast that ‘lakes’ seems the wrong word for them. ‘Lake’ evokes images of pond-steady bodies of water you cross in a day nursing a picnic lunch, and though every schoolchild in the world knows of the Great Lakes they are, in fact, too big for a man to get his mind around. They are taken only inasmuch as they contain fresh water. They are nothing less than inland seas. Of all the world’s landlocked bodies of water, only the Caspian Sea is bigger than Lake Superior.

Superior was the last of the Great Lakes to be created at the end of the last ice age 10,000 years ago, when the glaciers that once reached down to Missouri were melting. The last glacier was the one today’s scientists call the Wisconsin. As it shrank northward the earth, relieved of the weight of a blanket of ice sometimes 5,000 feet thick, began to rise again. Craggs and fissures and the wondrously grotesque land and rock formations of the Canadian shield appeared, some of them mountainous depots of rock and earth that had been suspended in ice for centuries, others the relics of weather-born mountains perhaps 600 million years old. There was also the great rent in the land now known as the Niagara escarpment, which divides the often bleak and inhospitable Canadian shield from the gentle flatlands of the south, and there were hills and there were hollows, and the biggest of these were the near-drop shapes of the Great Lakes into which the dying glacier fed its melting ice.

And it’s still going on. One of the few places scientists have measured such things is on Lake Simcoe. There the north shore near Barrie and Orillia is still in the process of springing back faster than the south shore.

The legacy of the Wisconsin Glacier is a massive diversity of terrain, wildlife, climate and vegetation.

In Lake Superior, the lakeshores are often forbidding cliffs symbolized by Thunder Cape, the towering outcrop—
Erie’s shallow waters froth in sudden storms but its sandy beaches are wide and gentle

bers of craft lost on the lakes, but the first storm formally and statistically recorded lasted four days and sank 97 vessels. That was in November, 1869. In the last 20 years of the 19th century the U.S. navy recorded that 5,999 vessels foundered or were wrecked in storms – and that 1,493 of them were never found. The fact that so many ships even sailed the Great Lakes 70 years ago is surprising until one remembers that the region boomed in the Victorian era, and that before railroads were built ships were the only means of supplying settlements and carrying out the newly discovered mineral riches.

In fact, the first vessel bigger than a canoe to sail the upper lakes remains the biggest mystery ship of them all. In 1679 René-Robert Cavelier de La Salle built a 60-ton slop on Cayuga Creek above the then-impassable Niagara Falls, and that August set sail with a crew of 34 up through Lake St. Clair and the St. Clair River to Lake Huron, and then round to the western shore of Lake Michigan, at Green Bay, now the site of Chicago. His slop, The Griffon (or Griffin, history books disagree) was loaded with beaver pelts and La Salle sent a crew of five to sail her back to Niagara, to return with materials for a second ship.

La Salle himself remained behind with, among others, the adventurer-missionary Father Louis Hennepin who later reported; they sailed the 18th of September with a westerly wind. The ship came to anchor to the north of the Lake of the Illinois (Michigan) where she was seen by some savages, who advised our men to sail along the coast (of Huron) and not toward the middle of the lake because of the violent storms. He spurned their advice and sailed on...

And that was the last seen of the Griffon. The mystery grew into a legend, aided in part by the name of the ship: a griffon is a mythical creature with the head, wings, and forelegs of an eagle and the body, hind legs and tail of a lion. Twenty years ago the skeletal remnants of two old wooden ships were
found, one near the western tip of Manitoulin Island and one at Russell Island in the Tobermory area of Georgian Bay. Was one of them the wreck of the Griffin? Only one man expresses certainty. Orrie Vail of Tobermory has the skeletal ribs of the Russell Island wreck assembled in his museum, and a sign that says it's the wreck of the Griffin.

Georgian Bay, that rock-and-shoulder-lit tered part of Lake Huron which is somehow never regarded as such, remains a graveyard of the lakes. Because the lakes are so big, some of the salt water sailors who began traveling them when the St. Lawrence Seaway opened in 1959 automatically assumed they would have tides. In fact the tidal action at its highest is just 1 inch.

One deep sea skipper to this day probably remains convinced that the lakes are tidal. Soon after the Seaway opened he sailed to Duluth on Lake Superior. When he left he ran aground near the harbor entrance. From Duluth, a tug company radioed: "Do you want help? " The captain airily replied: "No. We'll get off at high tide."

As Captain Smith tells it, that happened in mid-afternoon. "It seems this salt water skipper was taking a pretty hefty attitude about lake sailing, so no one bothered to point out that there were no tides. And then, damn me, if a wind didn't blow up and push the waters of Superior west toward Duluth so that by the evening the water level had risen two feet and that damn ship floated free, just as her captain said she would."

But there are occasions when atmospheric changes and winds produce dramatic—and perilous—changes in water levels that resemble tidal waves in slow motion. Known as seiche, these 'tides' are caused by changes in barometric pressure over the lake surfaces, usually in the upper lakes, that cause a slacking back-and-forth motion, like water in a bathtub. A seiche can cause the water to rise by as much as 10 feet in a couple of hours. Captain Smith tells of seeing a seiche in Georgian Bay lift a fishing trawler that high and leave it sitting on a jetty. On June 26, 1954, a seiche coincided with a 60 m.p.h. squall to produce an eight-foot-high, slow motion 'wave' in Lake Michigan that hit Michigan City, Indiana, at 8 a.m. The lake then sloshed back to the far shore and hit Chicago at 9:30 a.m., by which time it was in effect a 10-foot-high 'tidal wave'. Seven people drowned.

Like mortal creatures, the Great Lakes began to die the moment they were born. They erode their own banks, spread, grow shallower, fill with silt which cover and which their rivers wash down. That is one reason why Erie, the oldest lake, is also the shallowest.

The waters that inspired early Jesuit explorers to describe the lakes as 'seas of sweet water' slowly become enriched with the chemical nutrients from the silt. The process is called eutrophication, and because of it ultimately only primitive life forms—aquatic snotbugs and other creatures that can survive on the minimal amounts of oxygen in 'enriched' water and that look like some of the more grotesque early life forms—would be able to survive. But without the works of man this death-by-natural causes would not happen for millennia hence; perhaps the next ice age would have arrived to change the face of the earth before it could have happened. Now it is unlikely to happen that way.

In great measure, North America is as rich as populous as it is because the Great Lakes were there to carry the population over spills of European westward. Kingston, Toronto, Hamilton, Buffalo, Cleveland, Detroit, Windsor, Chicago, Thunder Bay—the great and growing cities of America and Canada are there because the Great Lakes are there.

Faced with the immensity that Captain Fred Smith glimpsed from the bridge of the Locomotive that frosty December night in the middle of Lake Superior, man thinks of himself as too puny to damage so massive a creature of nature. So today along the 1,800 navigable miles from the headwaters of Lake Superior to the islands at the mouth of the St. Lawrence River there are countless examples of man's mistaken humility in the face of natural grandeur.

Scores of towns and cities and industries dump raw or partly purified wastes and sewage into the lakes. The sewage, the salt from the roads, fertilizers from farms, the effluent of industry—all enrich the waters in much the same way that the natural aging process would have done anyway. One river feeding Lake Erie was so loaded with industrial waste a few years ago that it caught fire and has been officially labelled a fire hazard.

Superior, all 32,483 square miles of it, remains relatively unpolluted because there aren't many people living on or near it. But to increasing degrees as you go down to the land of the big cities and heavy industries and fertile fields, you find the lakes are all suffering in some measure from an ecological variance that the disease progeria—accelerated aging.

A child born with progeria can age 70 years in 10, and die senile before graduating from grade five.

In the Great Lakes progeria has another name: man.

But the man-made version of progeria is curable. In the past decade, which some have described as the Age of Environment, man has grown uncomfortably aware of what he is doing to the world in which he lives. Both U.S. and Canadian governments have passed a flurry of legislation designed to halt the destruction of the environment and billions of dollars have been spent on sewage plants to purify the human and industrial effluent poured into waterways in general, and the Great Lakes in particular.

No one knows how long it will be before the amount of man's pollution is reduced to a level the Great Lakes can handle without being damaged. Even so, there are already signs of hope. Six years ago ecologists were saying that the western portion of Lake Erie near Windsor and Detroit was 'dead,' or at least dying, as a healthy body of water. The subsequent publicity was worldwide and, alarmed, the industries and cities along Erie's shores began to purify their wastes. Today's bulletin on the health of Erie is more encouraging. The patient, say ecologists, shows signs of slight improvement.

That's encouraging news to Captain Smith, who is hard put to explain his love for the Great Lakes beyond saying: 'I just feel uncomfortable too far away from them.' He still lives near Lake Huron in Sarnia, and his summer cottage is on Georgian Bay. Often he takes a boat to sit and watch the lake, and sometimes to fish. "When you've spent as much of your life on the lakes as I have," he says, 'they grow to have distinct personalities and you somehow become concerned for their welfare, just as you would for an old friend.'