ANTOINE DUMAS WELCOMES ME TO HIS HOUSE IN AN attractive area of Quebec City. In the light-filled living room we chat over coffee, surrounded by books and paintings. My host is excellent company, and the hours pass quickly. Several times, however, he breaks off our conversation to answer the phone or go to the door to give a package to a courier.

"As you can see," he says, "I could use an assistant. Before my wife died in 1986, I would often go to my studio to paint early in the morning and not come out till late at night—she would handle all the administrative chores that eat into one's time." But it is more than administrative chores that come between Dumas and his canvas. His responsibilities at Laval University are demanding—he teaches three classes in illustration. As well, he says he needs more time for contemplation. "The country is changing," he explains, "and that,
of course, demands a great deal of reflection."

An enlightened observer of contemporary society, Antonio Damas never fails to analyze today's realities. "I'm a grim reaper of my time," he says. "Through my writings, I like to comment on the social problems of the day." One art critic has, in fact, described Damas's work as "painting an analysis," and Damas, who has documented almost every aspect of Quebec life from politics to sports to religion, has described himself as "a kind of journalist."

As an artist, Damas has a strong influence. "No one works the way he does," declares Germaine Latulippe, a visual art and literature advisor to the Montreal Urban Community Arts Council. "His art is original, his vision a personal one. He doesn't produce art for art's sake. His observations, his reflections on society are expressions of the deep-seated values of Quebec." While Damas's work focuses on Quebec, Jean Martel, co-owner of Nancy Peele's Studio in Toronto, which represents Damas, maintains that it is relevant to all Canadians. "Damas has tremendous feeling for Canada and its people," the artist says. "He's both a committed federalist and a loyal Quebecer; he has an understanding of both sides of the equation.

What is hard to bear, says Damas, is not the fact that his paintings may one day cease to hold appeal but the sense that representational art is sometimes seen as less worthy than non-representational art. "The establishment has a way of treating us representational artists as has-beens," he says, "because we paint in classical fashion on canvas. Now and then someone tells me to change my style, to do something else. But I can't–I'm incised in every fibre of my being." Damas says he dreams of an end to the battle between representational and non-representational art; on the other hand, "to the notion of art as the privilege of a small elite who decree that such and such a trend is in fashion."

Damas's journalistic approach to painting is not surprising, given his family background. His grandfather ran a print shop under the family's apartment in the Latin Quarter of Quebec City, and his father was a reporter with several Quebec newspapers. "Every night after my father came home," says Damas, "he would tell us the news of the day."

Campfire events echoed the imagination of Damas. As a boy, he would run to fires and head to the docks to watch ships berth, especially transatlantic liners, which filled him with wonder. For Damas, the waterfront became an atmosphere of excitement and mystery. At the railway station near the family's summer cottage, he watched trains go by loaded with mysterious. He remembers police raiding houses where opium was suspected of being harboured. But the event that struck him the deepest was the arrival of Winnipeg Churchill and Franklin Roosevelt in Quebec City in 1941 for the Quebec Conference, during which they discussed the prosecution of the war and the Allied invasion of Normandy. As a child, Damas was enthralled. Instead of talking about things that impressed him, he expressed his thoughts through art. At 11 he started producing his own newspaper in which he illustrated the world events of the day. Even as a young child Damas persisted "with unflagging ability to summate and synthesize," as Roland Bourdues has noted in his biography of the artist entitled simply Antonio Damas. "I could have become a journalist, but I had no talent for writing," Damas acknowledges. "My talent for drawing came from my mother, who never had the opportunity to develop her own."

In 1950, Damas entered the advertising program at the École des beaux-arts in Quebec City. He was happy there. Never fond of elementary or high school, he finally felt that he had found his place. His grades were excellent, and he was awarded the lieutenant governor's silver medal for graduating with the highest marks in his program. After graduation he worked as a commercial artist with a Quebec City advertising agency. "I never considered advertising to be just a temporary job," Damas says. What drove him, he explains, was the opportunity to create an image that spoke immediately and transmitted a message, idea or feeling. In 1962 Damas began teaching illustration at the École des beaux-arts, while working as a freelance artist.

In 1969, Damas, his wife and two daughters (a third daughter was born in 1973) moved to California, where Damas studied at the San Francisco Academy of Art College. It was a time of social ferment—the hippie movement, which had its roots in San Francisco, was at its peak. The California light, the music, the courses he was taking—all electrified Damas. He experimented with vivid colors and the interplay of light and shadows. Soon after Damas's return to Quebec City in late 1970, an exhibition of his California works was presented at the city's Zanetti gallery. It was a stunning success. His paintings, as before, illustrated scenes from daily life but the style was more refined and modern. Forms were simplified and colourful. The palette was luminous, the messages clear. Damas had discovered his own style, and his works were an immediate commercial success. California seemed to be his turning point in Damas's life. Since his return to Canada in 1970 he has produced illustrations for six large edition books, including Anne Hébert's novel Kaminaimu and Chansons dans la nuit, a collection of poems by Félix Leclerc. He has also designed four stamps for Canada Post, more recently the one that represented Quebec in a collection that celebrated the 125th anniversary of Confederation in 1992. Thus far, Damas has had some 15 solo exhibitions and a dozen group shows in Quebec and Ontario. He became a member of the Royal Canadian Academy of Arts in Toronto in 1980 and is represented in a number of prestigious Canadian collections, including that of the Museum of Quebec.

In his biography of Damas, Roland Bourdues concludes:
plates the secret of the artist’s success, suggesting that view-
ers can find in his painting a modern image of the reality
with which they are familiar. Mimicking life, Dumas’s works
portray such everyday figures as bosses, secretaries, business
people, judges, dropouts, union members and athletes and
involve such commonplace objects and buildings as air-
planes, television sets, offices and factories.
The appeal of Dumas’s paintings lies, first of all, in their
compositional qualities. “His paintings are beautiful, appeal-


Lake Beaufort, 1986


Upper Deck, 1988


Troubled Waters, 1990


Bilbao Canal, 1990


New Quebecor, 1990


Dumas at Work

ent are enjoying the upper deck during a luxury cruise,
while the disadvantaged are below, operating the ship. And
L’Ére glacière (Glacial Era) is a comment on the hovering
message of the cold, impersonal buildings that Dumas feels
are advancing through our cities like glaciers.
Dumas himself, however, is a lover of cities. Even now,
having spent most of his life in Quebec City, he never
misses walking through different parts of it, watching
everyday life. “Cities bring people together,” he says.
“They provide a bustling setting that makes us feel truly
alive. Quebec is a wonderful city. It has a soul. It has his-
tory. It is distinctive in Canada because of its European
appearance and way of behaving. Quebec is an engaging
city that still operates on a human scale and hasn’t turned
its back on its rural beginnings, and it isn’t marred by the
soul-destroying violence that’s found in the big cities. Its
development has caused great losses, though—part of the
urban fabric has been destroyed and replaced by an archi-
tecture that has no character.”
The artist’s concerns go beyond the phenomena in his
immediate surroundings, and personal experience quickly
becomes part of universal realities. In 1988, Dumas painted a
series of pictures entitled L’âge de sue (L’âge Lazare). “The death
of my wife was deeply painful,” he confides. “I felt washed up,
and I was asking myself a lot of questions about the meaning
of life, of my own life. Was there a significance to the road I’d
taken? What would be the road to come?” In this series of
paintings, the artist raises questions about every stage of exis-
tence—birth, adolescence, marriage, work and retirement.
For Dumas there are several steps in the creation of a
painting. The starting point is a small drawing pad. Dumas
always carries with him a small pad in which he collects
sketches, many done while strolling through the city. Of a
scene taken from here and there; he retains only what is
essential. He may discover later that a sketch relates to cer-
tain facts about society, and an idea will germinate that,
when joined to other ideas and other observations, will
become a theme and, finally, a painting.
“Certainly there are things in our society that occur
often,” Dumas explains. “In the end they inspire subjects for
paintings. For instance, we often hear about Quebecers’
newly competitive behaviour in business. To illustrate that I
painted Québecois nonnaux [New Quebeckers], like Atlas, the
new Quebecer carries the world on his shoulders. He nego-
tiates with Europe, China, Japan.”
At least a dozen sketches are made before the final pain-
ting is begun. The various elements are organized until they
fall into place. The images are refined until only what is
essential remains. Like Henri Matisse, whom he admires,
Dumas believes in the evocative powers of a simplified
image. Like Matisse, Dumas uses colour to express emotions.
Every aspect of Dumas’s work, in fact, plays a part in
communicating his message. “He’s a man for whom details
are important, a man who works with a tremendous con-
cern for quality,” says gallery owner Madeleine Lacerte.
Dumas brings to art a certain eloquence. In a language all
can understand, he chronicles the times.
A Fuel for the Nineties

Long regarded as the Cinderella of the Canadian energy scene, natural gas is gaining in importance as a fuel for the future. Among the reasons for its growing popularity are its plentiful supply and environmental friendliness.

By PAUL MILLER

In the energy class of the 1990s, natural gas has been voted the fuel most likely to succeed. From the smallest gas producer to the largest consumer, everyone seems to have a different reason for being high on gas. But high they all are.

What are the reasons for this surge in popularity? The answer lies partly in the environmental friendliness of natural gas. Although in the ground it can be a complex substance, containing liquids, sulphur and other gases, most of those constituents are removed soon after natural gas reaches the surface, either for environmental or (in the case of sulphur) safety reasons. Or because a particular constituent—propane is a good example—has an economic value that makes it worth recovering for separate use.

What remains after natural gas is stripped of its impurities and valuable liquids, what we consumers think of as "gas," what arrives at the burner tip of a gas furnace in, say, Peterborough, Ont., after travelling for six days from the foothills of Alberta, is a nearly pure methane gas. As you will no doubt recall from high school chemistry (oh, all right, I couldn't either), methane is a very simple substance. Lighter than air, colourless, tasteless, odourless (the smell associated with natural gas is actually a substance called mercaptan, which gas distribution companies add to their product to enable users to detect a gas leak), methane gas is the lightest of all hydrocarbons, with just one atom of carbon and four atoms of hydrogen per molecule. Which means that when you burn a molecule of methane, it burns cleanly — no ash or residue, no sulphur. Indeed, it represents an excellent fuel for the environmentally conscious 1990s.

Another key to the growing popularity of natural gas is that, relatively speaking, there's lots of it. Canadian natural gas is being consumed at a rate of almost five trillion cubic feet a year. Supporting that consumption are establishments reserves of about 70 trillion cubic feet. In addition — according to lan Hayhow, a Calgary-based energy analyst with the National Energy Board — there are probably another 90 trillion cubic feet of gas to be found in the relatively accessible sedimentary deposits of western Canada. Substantial quantities are also known to exist in the country's northern territories. Imperial's Tagish gas field in the North- west Territories, for example, contains about three trillion cubic feet of gas. As well, there are huge volumes of gas in coal seams.

"In recent years, each of our studies has tended to result in increased estimates of Canada's ultimately recoverable gas," says Hayhow. "The reason, quite simply, is that the industry is getting smarter at searching for gas. There have been steady improvements in both seismic and drilling technology and real reductions in the cost of finding gas."

Rudy Bielde, vice-president of gas supply for The Consumers' Gas Company Limited, eastern Canada's largest and — dating from 1848 — one of its oldest gas distributors, agrees. "I think every knowledgeable observer of the industry would agree that over the long run there's plenty of natural gas in the ground in Canada."

Little wonder, then, that gas is almost unanimously expected to be Canada's, indeed North America's, fastest growing source of energy between now and 2010.

Before emerging as the energy swan of the late 20th century, however, natural gas went through a lengthy and awkward phase as an ugly duckling. For the pioneers of petro- leum exploration, the discovery of natural gas without accompanying crude oil was cause for severe disappointment. Unlike crude oil, which could be poured into barrels, transported to a refinery and boiled up into useful products like kerosene, gas was useless — worse than useless, because it could explode or asphyxiate people.

In a few instances — in New Brunswick (the site of Canada's first natural gas discovery in 1859) and in Alberta — natural gas was discovered close enough to a population centre for it to make economic sense to lay a pipeline from the field to the city or town and use the gas for lighting streets and homes. But these instances were initially viewed as curiosities.

Only in the then heartland of the Canadian petroleum industry — southwestern Ontario and Alberta — was natural gas distributed on anything resembling a regional basis. In southwestern Ontario, the Union Gas Company was created in 1911 and served the communities of Windsor, Chatham and London, using natural gas from the shallow, low-pressure reservoirs of Essex, Kent and Lambton counties. Delivered through iron pipe that was initially laid along the surface of the ground, the gas supplied energy for industry and for residential heating and cooking. In Alberta, an estimated one trillion cubic feet of natural gas was simply burnt off in the first 14 years after the discovery of the Turner Valley petroleum reservoir south of Calgary, whose residents claimed you could read a newspaper on the street at night because of the glow of the distant gas flames. Eventually, pipelines were built to supply markets in Calgary and Edmonton (one such line, a 245-kilometre conduit linking the Bow Island reservoir to Calgary — built by Eugene Coste, who was also a pioneering force in the creation of Union Gas — is still in operation today).

For the balance of the gas industry — for companies like Ontario's Consumers Gas — the product delivered in the early days was not natural gas but coal gas. The coal gas industry had been largely started by the father of the industrial revolution, the Scot Thomas Watt, after scientists discovered in the early 18th century that when coal is heated in a closed container it releases combustible gas. Coal gas was first used to light Watt's factory in 1803 and quickly became the source of choice for municipal and residential lighting in major cities of Europe and North America.

A fascinating mural, Toronto 1928, by Franz Johnston (a Canadian artist who is best known as a founding member of the Group of Seven, even though he left the group almost immediately after its formation) indicates the role that manufactured gas quickly came to play in major cities. In Johnston's panoramic mural of Toronto, depicting what were then the city's manufacturing and meat-packing districts, the dominant feature of the Toronto skyline is a huge coal gas storage tank.

However, the potential for coal gas to gain a larger share of the energy market was limited by two factors. One was the growing availability of relatively low-cost electricity. The other was the comparatively high cost of manufacturing coal gas. As a result, during the early part of the 20th century the outlook for the gas industry was limited at best. That it was to be anything but an also-ran in this astonishing century, waved its transforming wand. The outcome in this case was then-walled steel pipe that could be made economically in large diameters and that would withstand very high pressures. Suddenly it became feasible to link the immense gas reservoirs of the Texas Panhandle and Oklahoma with the large population and industrial bases of central and eastern North America. Gas that had previously been deemed useless and burnt off begun to make a growing contribution to the energy riches of this fortunate continent.

By the end of 1947, Union Gas was making plans to receive U.S. natural gas via the Panhandle Eastern Pipeline Company to avert a looming supply crisis brought on by de-
The Canadian natural gas industry is therefore on the eve of a new era—a era in which the large surpluses and low prices of the past eight years will give way to greater uncertainty. Most probably, given the unpredictable nature of new hydrocarbon discoveries, there will be alternating periods of surplus and tightness in supply, with fluctuating prices acting as the mechanism for smoothing or deterring short-term developments, large or small. Reserve.
Northern Reflections
A poet recalls a memorable journey he made to Canada's eastern Arctic nearly 30 years ago and the events that inspired his poetry

By AL PURDY

It was the summer of 1965, and I was flying to Baffin Island. During the night of July 10, I watched southern darkness change into northern light. I'd read about this 24-hour daylight business before, but to be there at the geographical point where darkness is left behind and there's nothing but light in the sky ahead—that's a different thing from having it described on paper. A strange feeling.

The aircraft was a Bell-205 that sounded as if it couldn't make it over a goldfish bowl. In fact, two nights before, when we'd first started out for Baffin Island, the plane had begun to leak fuel, which forced a return to Montreal's Dorval Airport. And now, repairs completed, I was embarking on my great adventure, a summer in the Canadian Arctic.

The other passengers were, apparently, old northern hands. They all went to sleep half an hour after takeoff. Only an extroverted former sailor and I remained awake. He was employed in the meteorological division of the Department of Transport at Frobisher Bay and chattered away to me about how he was going to "make time" with the attractive flight attendant, Suzanne. Then he suddenly got airsick and had to take refuge in the aircraft's washroom. In his absence, Suzanne and I discussed French Canadian joi de vivre, folk singer Gilles Vigneault, religion and just about everything else. Suzanne surprised me a little at one point. She told me she was an agnostic and then, motioning outside where the moon touched our wings with silver, said, "But I see angels out there sometimes."

At around 4:00 a.m. I could see snow-streaked hills below us, where our tiny shadow kept pace with the aircraft. It was a land of dark hills, ice streaking every shoreline, from baribal-sized lakes to the wide expanse of Frobisher Bay itself. Baffin Island:

A club-shaped word
A land most unlike Cathay or
Paradise
but a place the birds return to
a name I've remembered since
childhood
in the first books I read
a warm kind of wonder in myself
I used to be ashamed of—

In a kind of exhilaration, I rushed from one side of the plane to the other in order to see all there was to see. The worst of this kind of euphoric feeling is that it always wears off, but the down side is never a complete reversal of the enchantment in your enthralled mind.

At 5:00 a.m. we stumbled from the aircraft with sun-glazed grouchiness faces averted from the sun-glazed grouchiness sky. Among us were the former sailor, now subdued and silent, and Evelyn, a brown and leathery Yorkshire engineer bound for a construction job; a couple of civilians (the weatherman); and a young Swedish writer-photographer team, Tore and Jan, who both had hair so blond it actually glowed. They planned to write a book about the Northwest Passage and always had a bottle of good Scotch in their pack. (I had brought along my own bottle of good Canadian rye.) In all there were 13 passengers.

Baffin Island is a huge chunk of territory, about four times the size of England. In 1965 the administrative centre, Frobisher Bay, was a kind of frontier town of 1,300 people. Most visitors and government personnel bunked at the Federal Building, a sprawling complex of offices, workshops, and living quarters owned by the Canadian government.

After 10 days of wandering around Frobisher Bay, I hitched a ride on a company charter bound for Pangnirtung, a village of 200 or so near the Arctic Circle. Everybody met the plane at Pang. Inuit residents, Sloates; and Northern Affairs people, including Wayne Morrisson, the regional administrator. Wayne was fresh-faced, around 30 and very tall. Married, he had his own house, in which I was invited for meals a couple of times.

Staying at the hostel where Inuit kids lived during the school year, I wandered all over the settlement, climbed a small mountain nearby, talked to the Inuit hunters and old people—in fact talked to nearly everyone. And one grey day I went for a long walk with a public works man from Ottawa. His job involved finding the proper variety of gravel at Pang to mix into concrete.

During our search we passed a small graveyard, where a dead body was lying above ground wrapped in blankets. "When the permafrost has melted some, they can bury the lady," explained my companion. He showed at the ground with the tip of his spade; it was still iron-hard, the tempera-
tune around freezing in mid-July, a few snowflakes coming down. "You often find good gravel near a graveyard, where the digging is easier," he said.

I intended to take some gifts for friends when I returned home and got permission to open some cases of Inuit carvings returned from Frobisher Bay because the authorities there said they weren't good enough. And I guess those people were right. I rummaged through three wooden crates, top to bottom, getting sticky packing inside my shirt, searching for:

... one good carving
one piece that says "I AM"
keep a southern promise
One 6-inch walrus (back broken)
whale skin (very tatty gone)
dog that has to be labeled dog
polar bear (badly crippled)
and I'm getting tired of this...
the rest must be something
one piece that glows
one slip happy idiot seal
alien to the whole seal nation
one anthropomorphic walrus
singing Hallelujah I'm a bum
in a whalekill bar
But they're all broken
broken bent manipulation
failed animals
with vital parts missing...

I had a vision of the carvers themselves at that moment: TB outpatients, failed hunters, losers always. And here I was, intruding into their lives and work, seeing them for what they were and were not, as if I knew them personally. And perhaps I did.

But Pangnirtung didn't seem like my eventual destination either. It was a bit too civilized for my purposes, despite the polar bear and sealskins at the Hudson's Bay Company store. I arranged through Wayne Morrison to accompany an Inuit hunter and his family to their summer home on the Kitikianak Islands in Cumberland Sound.

Our heavy loaded Peterborough boat left the dock in late afternoon the next day. The passengers were Jonesea, the hunter, his wife, Leah, and their three children, one a baby on Leah's back. They carried supplies meant to last an indefinite period. We took along groceries for two weeks, a Coleman stove, a portable typewriter and plenty of warm clothing.

Jonesea was a very good hunter. Wayne had told me, "Or else he couldn't afford all that expensive equipment." Jonesea was a medium-sized man of about 30, pleasant looking with a small scar in the middle of his cheek. When he smiled the scar on his cheek disappeared into a smile. But neither Jonesea nor his wife spoke very much English. Leah was seriously pleasant to me. And the two kids, well, they were like any other kids. I forget to mention four other passengers—a blind husky bitch with white milky eyes, apparently a family pet, and her three pups.

We followed 30-metre-high cliffs to the mouth of Pangnirtung Fjord, which opened on Cumberland Sound, an arm of the sea some 300 kilometres long. On the way we passed a small island infested with at least 50 dogs. They rushed howling and whining down to the shore as we went by. I was told later that it was an Inuit habit to leave dogs on an island to fend for themselves during the summer, when there was no sled-hauling work to be done. You'd think they'd starve to death on those barren little islands but apparently not.

At 8:00 p.m. the Jonesea expedition landed on another small rocky island. And since I'd been informed that the Kitikianak group of islands were bound for contained a tiny Inuit village, I knew this island was definitely not our destination, even though the place did seem to be inhabited. There were a dozen or so people in residence, plus dogs (not all of them are left alone on islands). But their dwellings were only transient tents. I didn't know where we were, and nobody spoke enough English for me to ask them.

At our landing place I lifted the blind husky and her pups onto shore, a job I inherited thereafter. The dog seemed to trust herself at my hands, and I had to trust her not to bite.

It was an island of hunters. They gathered atop a small mountain, firing rifles at seals in the water below. Then came a period of stillness, while other hunters dished out from shore to pick up bodies. Rifles boomed and echoes crashed from other islands all around us.

Inuit children scampered around playing hunting games and games with secret rules. Dogs sidled away from me, suspicious and savage if I approached them placatingly. A weird "oww-oww-oww" sound drifted through the night-long twilight, a sound so empty of meaning or previous
association that it dragged my spirits down like lead. Unlike any other bird cry I have ever heard, it was the call of old squaw ducks, and the noise like that can't be very terrifying.

Huddled in my sleeping bag later, a windup phonograph nearby grating out "You Are My Sunshine," I thought what a strange experience this was for me: trying to sleep on a nameless Arctic island in Cumberland Sound, my guide and mentor for a native hunter. I couldn't speak English and tell me what was going on, all the euphoria I'd felt on arriving at Frobisher spent—like counterfeit money. It was midnight by my wristwatch, the light a sort of amber that was neither day nor night, those ducks rehearsing their mournful calls all around me.

Here I am alone as I've ever been in my life, a walk-up gramophone scratching out "You Are My Sunshine" in the next tent the sea crowded with invisible animals. The Low Frobisher of eager white shapes of icebergs in whirling legions where

Old Squaw Ducks are going "now-oo-now-oo."

And I think to the other side of that sound I have to because it gathers everything all the self-deception and phreness of my lifetime into an empty place and the RUNNER IN THE SKIES I mention as symbol of the human spirit

I mentioned my only strength is blind will to go to the other side of that sound—

I thought of those lines while listening to the ducks, then fell asleep. Next morning I wrote them down.

After two days we embarked again for the Baffin Island, which I estimated to be 30 or 40 kilometres from Pangnirtung. As our voyage drew to a close, Jonesie's island rose out of the water like an新时期landscape in a dream, in jaunbled lion-coloured rocks glowing in the sun.

There were only two Inuit families on this particular island—just two families, but several abandoned winter huts. Jonesie and his family had his out to wake up one morning and find them occupied again, the people having just returned from founding a colony in Caribou or Antarctica.

I was to rest in a cleared area near the beach, my portable typewriter on a cardboard grocery box, the Cole-

man stove in one corner, a clutter of grocers and clothing in another. A well among the rocks supplied water. But the toilet was a problem. I decided on an outdoor one some distance from camp must be the answer. But there were a dozen or so dogs prowling around, great, multi-coloured beasts who had grownled at me suspiciously every time I approached. They were impossible to avoid. With no summer work, they just hung around the little settler. When I started across the island, they followed me. Threatening to throw stones had no effect whatsoever. The dogs were right at my heels.

Finally one of the kids noticed my predicament and stood guard against the dogs. But they howled a short distance away, and the little youngster laughed at my discomfort. With some horror, it occurred to me this same scene might be frequently repeated and I warned my escort suitably, with a dance.

The wind blew hard all that fine night on the island, and twice I heard a loud crash close to the tent. I didn't stir from my sleeping bag. Around 7:00 a.m., after a breakfast of beans and bread, I went down to the beach. A great fairy castle of shining minarets and fantastic towers of silver and pale blue-green was grounded close to shore. Wind had driven an iceberg onto the beach, and it was much more beautiful than the ones in Spain or on the Rhine River.

I edged as close to it as I could, water dripping from the ice almost at my feet. Then I felt myself grabbed from behind and pulled back from the berg. It was Jonesie, his brown face smirking but reproving. "Bad, bad!" he said, one of the few English words he knew. As if at a signal, a large chunk of rotten grey ice crashed from the berg and splashed us with watery crystals. I grumbled weakly at Jonesie and shrugged my shoulders. "Thank you," I said. "Thank you very much."

Jonesie and his friend Simorne—alike as twins except that Simorne was slightly older—were burning before I was awake every day. I went with them once and nearly froze to death, thereafter remaining in my sleeping bag, immune to Jonesie's coaxing at the tent entrance.

One bright day Leah was doing her washing, absorbed in scrubbing, rinsing and wringing in a galvanized tub. I stood nearby like an alien shadow. She paid no attention to me. So I joined her, rinsing her clothes myself. She thought that was strange, I could see my presence enter her face and mind, disturbing her private thoughts, pushing in among them. Then she smiled, the dimples forming in her cheeks.

Every morning Leah and her baby and Leah's friend Regal (Simorne's wife) came over to my tent for the tea. The two women, actually little more than teenage girls, sat opposite me on the matted rushes which then covered the Coleman stove, boiled water and I made tea. It became a ritual that began each day. Leah would breast-feed her baby while I talked in English, of course they didn't understand. And they would wet their faces to each other and smile. Sometimes we'd sing songs together, including the dittetye "You Are My Sunshine," the words of which they had memorized. I think we became good friends.

Once the two hunters were away for three days, returning with a boatload of seal meat. On the beach they stripped the skins off the seals, throwing the bodies into the water. When the bodies struck the surface, all the dogs or so dogs jumped in after them. The dogs fought one another for meat. They splashed and threatened and grinned with bloody jaws. It seemed almost prehistoric.

While this was going on, two wives stood some distance away from their husbands. Small things had happened during the hunters' absence; the separate streams of living had to be joined and flow together again. One could feel a slight strangeness between the husbands and wives, then the beginning of a moulding and joining.

On the beach dogs are still fighting over the bones and shreds of seal meat, a red pool 10 feet across in the water is a death-deck of wading crimson then slowly turning blue again and beyond these islands other adjustments are being made—

It seemed to me that the life I lived on that island was about as basic as you could get. The big icebergs sailed by like ships every blue or grey day. I picked yellow and blue flowers from among the scanty vegetation. The wind blew continually. Twice an aeroplane passed high overhead, and I felt like waving my arms at it and screaming. "My name is Robinson Crusoe—please rescue me!"

After nearly two weeks on the island I picked up a fever. My mother died very hot. I got into all the clothes I had with me, climbed into my sleeping bag and dosed myself with quinine pills. It wasn't a cold exactly, at least it didn't feel like one. I swallowed a lot of pills and drank hot tea.

By the second day the fever was still high. I felt a bit scared, there being no doctor on the island—there wasn't one. I'd been told, nearer than Pangnirtung. I drank the last of my quinine, as Leah and Regal came over that morning for the ritual tea, I shrugged them at helplessly and mildly ill. They looked sympathetic and went away. I felt sorry for myself and depressed. But my mood fluctuates, as Leah and Regal. I was glad of this intermission, in which the multiple choices of youth were again possible.

And overnight it started to rain.

Here I am again, lying in this fever and I'm so glad to be here, no matter what happens—riding the wind to Pang or being howled at Frobisher (waiting for clearer weather). I'm so glad to be here with the chance that comes but once to rest on the ledge below the beach they to rest ed in themselves to meet himself as a stranger at the northern end of the world. Now the bullying wind howes faster the yellow flags rush seaward the stones cory out like people as my fever suddenly goes and the huskies bark like hell.

In a case hollused out in the rain near a pile of ghastly groceries and some books—morning soon.

Obviously, a signal had been sent and received; it was time to leave the island. I talked to Jonesie and named returning to the ironclad Frobisher boat. At 9:15 I left Leah and Regally stood on the beach among rotting seal flippers and bones waving goodbye.

That was nearly 30 years ago, almost another age and era in the Arctic. But if I were to fly over Baffin Island today, viewing the landscape from above, it would seem that little had changed: the mountains, rivers and glaciers of this immense island would look as if they had never been seen by human eyes.

But on the land below, the town of Frobisher Bay is not Frobisher Bay any longer; its name has been changed to Iqaluit, and its growing population now stands at more than 3,000. Tourist hotels have mushroomed there and at several other settlements. In 1987 the Hudson's Bay Company sold its northern stores to the Winnipeg-based North West Company. And Baffin Island is now part of the one-fifth of Canada's land mass that will soon be called Nunavut (Our Land), which is scheduled to be governed by the Nunavut legislative assembly, to be elected in 1999. The Inuit have taken charge of their own destiny.

Ever since my summer there in 1965 I've had a vested interest in the Frobisher Bay area. A story not related to my being a Canadian. A ghostly citizenship in my blood awaken every time I see a good photograph of Baffin Island, and I want to return. Leaving there in 1965 I had the feeling that my life had been turned around, when I went. An interest in the future, in which the multiple choices of youth were again possible.
A Hand Up
Not a Hand-out

Inspired by the Mennonite concept of community barn-raising, Habitat for Humanity is helping build homes for the working poor

By Marcia Kaye

Seen through the steady downpour of a Monday dawn, it's not a pretty sight: a straight line of 10 building foundations capped by rain-soaked subfloors, like a row of desolate islands fixed in a sea of mud. Gloria Arqueta, her flowered pants tucked into construction boots several sizes too large, studies the first foundation in the row. This is where her house will be, a house she will help build over the next five days and into which she and her family will move on Saturday. When her oversized yellow hat slips down over her eyes, someone offers her a smaller blue one. "No, no," she protests in her heavily accented English. "I like yellow."

Gloria and her husband, Francisco, have never built a house in their lives. Nor have most of the 400 volunteers who are arriving in cars, trucks and buses at this site along Daniel Avenue on the outskirts of Kitchener, Ont. As the volunteers gather briefly, hard hats in hand, for morning devotions, the July rain that has been falling since midnight lets up a little. Within minutes, as if through the sheer common will of the group, the rain stops completely. And the work begins.

The construction of a house for the Arquetas is part of the largest event in the history of Habitat for Humanity Canada, an organization dedicated to building simple, decent housing for the working poor. Nonprofit and nonprofit, Habitat is a private organization that relies on volunteer labour and acquires land and materials through donations or at discounted prices. (It bought the land in Kitchener from the local Roman Catholic diocese.) Instead of a down payment, Habitat families provide "sweat equity": 500 hours of manual labour helping to build their home and homes for other families. But the houses are not gifts.

Families must make no-interest mortgage payments averaging about $570 a month for 20 years. Habitat uses the mortgage money to finance the building of more houses for other families. "We're not just building houses," says John Sweeney, chair of the organization's national board and a former Ontario minister of housing. "We're helping families build themselves."

Habitat Canada is an offshoot of Habitat for Humanity International, which was started by an American millionaire in Georgia in 1976. Based on the Mennonite concept of community barn-raising, Habitat International has been responsible for the building of more than 20,000 houses in 40 countries over the past 17 years. Habitat for Humanity Canada began in 1985 in Winkler, Man. The organization got off to a slow start, building only 60 houses in seven years. But now it is expanding almost too quickly to monitor. Early this year there were 12 local affiliates in six provinces; by Christmas there may be more than 20. This year alone, Habitat Canada will build 40 houses, from Kelowna, B.C., to Dartmouth, N.S.

Since 1984, former U.S. president Jimmy Carter has been a key figure in Habitat International, spending a week each year working on a building blitz of Habitat houses and, in so doing, helping to publicize the work of the organization. This year, for the first time, he has chosen to work in Canada.

Carter will arrive in Kitchener tomorrow. Meanwhile, the site here is as busy as a series of anthills, swarming with workers hauling lumber across the muck, trying to keep their footing on the slippery subfloors and nailing studs together to create horizontal structures that will soon be raised to form walls. At each house a skilled crew leader supervises skilled and unskilled workers. One house, however, has an entire crew of professional construction workers, supplied by a local builder. As Rick Trafford, building inspector for the City of Kitchener, makes his rounds, he finds no difference between the work of the all-professional crew and that of the others. "They're all doing a nice job. Habitat has a high standard of quality and workmanship."
There are a few mishaps on the Argenta's site. A worker carrying a sheet of plywood slips off the porch, which leaves him shaken but unhurt. Then a backhoe delivering a load of shingles sinks into the mud and severs a water line, which takes half an hour to repair. Still, the work progresses smoothly, and before 9:00 a.m., to a chorus of cheers, the first wall is up. As Gloria Argenta looks up in silent awe, Betty Jane Rose, a volunteer, lets out an ear-splitting whoop of delight. For Rose, who is also on the committee that selected the families, volunteering for Habitat is a joyful expression of her religious faith. "Many people involved in Habitat are not satisfied to sit in a pew and say they're faithful," says Rose. "We have to show people—and prove to ourselves—that we're faithful."

Habitat is an ecumenical Christian organization, but not all volunteers are Christian. Nor are all the families for whom the homes are built. The selection committee chooses families according to four criteria. First, families must have income below the poverty line but high enough to allow them to pay the mortgage. Second, their current living conditions must be inadequate enough to justify a move. Third, they must be willing to contribute 300 hours of manual labour. And fourth, the selection committee must have a gut feeling that a particular family deserves a break. Being a committee member carries considerable responsibility and stress—in fact, two Kitchener-Waterloo members had to resign because of the stress. "They just couldn't handle the idea that they were determining the lives and futures of families," says William Shantz, a committee head. The Argenta family met all four qualifications. Francisco, a factory worker, and Gloria, who holds two part-time jobs, live in El Salvador seven years ago and, with their two sons, have been living in cramped quarters in an Ontario Housing complex.

When Joe Whitmack, neither a Christian nor a churchgoer, applied to the Habitat affiliate in Edmonton two years ago, his friends thought he was getting involved in a religious cult or a financial scam. Whitmack, who helped to build his own house last year, is still not religious but is certainly a believer in the principles of Habitat. His housing costs are now much less than they were when he and his family lived in an unheated, tumble-down rental house, and he can give his three children the security of roofs that he never had as a child. "After we moved in," says Whitmack, a gardener at an Edmonton park, "my youngest daughter asked if we were going to move again. It made me feel so good to tell her we wouldn't. It's a kind of good I hadn't felt in a long time."

Many Habitat homeowners talk about the dramatic difference Habitat has made to their lives. "Our life was a living hell before," says Louis Cyr, a Métis who received the first Habitat house built in Winnipeg five years ago. Cyr, working for minimum wage as a slipper-receiver, could scarcely provide for his wife and three children, one of whom is disabled. Since becoming a home owner, he has climbed out of a well of debt, helped to get a community recreation centre built and found a new job as the pick-up coordinator at a Winnipeg store, run by Habitat, that sells recycled building supplies. Cyr, who has paid his "sweat equity" several times over, says, "Habitat has made a big difference in my life. Working on Habitat projects is my way of paying the organization back."

Initially, many people greet the idea of Habitat with skepticism. Charlotte Kenkel, who lives with her family in one of the two Habitat houses built last year in Kitchener, recalls that when she first heard her family was getting a house, she wasn't excited at all. "I pictured an ugly little shack on wheels. I didn't picture a beautiful, well-constructed, comfortable home." Indeed, the Kenkel's house is a modest but respectable 1,032-square-foot, three-bedroom bungalow with hallways wide enough to accommodate the wheelchair that may be needed someday by Kenkel, who has multiple sclerosis. "Being homeowners has given us so much pride and dignity," says Kenkel. "The Habitat concept—a hand up, not a hand-out—is the way the world should run."

By lunchtime, the Argenta's site booms four walls and the beginnings of a roof. "I can't believe it," Gloria Argenta says delightfully. "It's almost a house—in one morning!" The crews take a 15-minute break for a lunch of sandwiches donated, in the thousands, by local church groups. Of the more than 400 workers on-site at one time, about half are from the Kitchener-Waterloo area, one-third from the United States, and the rest from elsewhere in Canada. More than one in four are women, and one in five is retired. Ed Havitz, 63, of Lansing, Michigan, and his son, Mark, a professor at the University of Waterloo, did a 13-day, 400-kilometre trek last summer raising to raise $12,000 for Habitat. John Bigelow, a local contractor, is happily spending the work without pay because, as he puts it, "these families are so thankful and appreciative that it's a pleasure to work for them." Claude Burden, a retired mechanical draughtsman from St. Francis, Wisconsin, has worked on four previous Habitat projects in the United States and Mexico for the pure enjoyment of helping others. Hobbled by arthritis, the 73-year-old knows he's not the oldest volunteer on-site. "I never am," he says. "There's always a guy older than me. In North Carolina, some guy was 83."

The construction progresses rapidly throughout the afternoon. Workers begin installing doors and windows, sheathing and shingling roofs, roughing in plumbing, wiring and heating. By 5:30 p.m., after 10 hours of work, energies are starting to flag. The Argentas, weary and with sore hands and blistered feet, can't rest until they bring their sons, Carlos, 14, and José, seven, for a quick look at their future home. Finally this shift of workers makes way for the next shift: the "elf crews," whose members, like the elves in the children's tale, toil while others sleep, staying until nearly midnight.
The next morning there's a tangible excitement in the air as the crowd awaits the arrival of Jimmy Carter. Suddenly, with little fanfare, there he is, with his wife, Rosalynn, both of them in jeans and work shirts. Also present are former Canadian governor general Ed Schreyer, his wife, Lily, and Ontario Premier Bob Rae. Following brief speeches, the guests of honour are eager to get to work, and Carter heads over to the Aguetas' house to install a rear window. As he takes out his hammer he pauses to explain his involvement in Habitat. "Housing is a crucial thing. You can't really do much about teenage pregnancy or juvenile delinquency or school dropouts or lack of health care without people having a decent place to live." Although he is also involved in human rights protection, health issues in developing countries, conflict resolution and other programmes, he says, "The most challenging, rewarding, enjoyable, unpredictable and adventurous work I'm involved with is the projects for Habitat." Carter has extensive building experience and a love of carpentry; one of his parting gifts from the White House staff was a set of tools. In the house next door, Premier Rae, who admits he has little experience in building beyond that involved in fixing up his cottage, struggles with a bar of isolation to good-natured ribbing from his workmates and the building inspector. While Habitat has no government affiliation, Rae fully supports the concept. "We have the nonprofit projects, we have the co-op projects. But this is unique because of the enormous community involvement and mobilization. I think it's a sign of just what we can do." Although Habitat accepts government-donated land and services, it refuses government money for new construction. Ev Doherty, general manager of the Kitchener project, says government subsidies would necessitate consultants, committees and bureaucratic red tape. "We move very quickly," Doherty says. "I'm not sure the government would be able to keep up." He adds that government-subsidized housing is so costly to taxpayers that it is no longer affordable. "I think society should look really hard at replacing subsidized housing with this." Some municipal governments are doing just that. A number of other Canadian cities have donated or committed to donate land to Habitat, preferring to receive property taxes than to leave the lots arid and empty. Elzé Wayne, mayor of Saint John, N.B., which recently made a commitment to do its best to provide land for a future Habitat project in the city, says, "I don't think we can afford not to do it. It sets an example for working people that governments just don't give things away - you have to work for it." Interestingly, not a single Habitat homeowner in Canada has ever defaulted on a mortgage. Increasingly, companies are donating materials, money and labour to Habitat. Says Arias Alexander, product manager at Agern for Alexander Carpet, which is providing floor coverings for Habitat houses in Ontario and Quebec: "We're pretty impressed with the entire organization. Habitat is truly a humanitarian effort." By day's end, most of the siding is up on the Kitchener houses and all the windows are in. Gloria Aguetas can't get over the idea that a former U.S. president is helping to build her house or that reporters want to talk to her. "I feel like a movie star," she says with an embarrassed laugh. But there has been a setback today. For unknown reasons, none of the people with experience in taping drywall showed up on-site. Habitat puts out a desperate appeal for help through the local radio and television stations. In response, half a dozen professional drywallers turn up on the site, all set to work. This is typical of Habitat's skin-of-its-teeth operations. In fact, two months before construction began on the Kitchener project, there wasn't enough money to go ahead with all the 11 houses Habitat had committed to build. As it happened, one of the selected families opted out for personal reasons. Then a strong fund-raising drive brought in enough money for houses for all but one of the 10 remaining families. Almost miraculously, only two weeks before the deadline, an anonymous donor sent a cheque for just enough money to cover the shortfall. By Friday afternoon, after a week of cool, dry, perfect building weather, workers are scrambling to put the finishing touches to the houses. They install refrigerators and stoves, lay sod and move into place the picnic tables and tool sheds built by local students. Finally, when the last bush is planted and the last tool is put away, it's time for the ceremony that many consider the highlight of their week: the formal dedication of the houses to the new owners. In the light of the setting sun, a procession winds along Daniel Avenue, led by Habitat president William Martin, followed by Ed and Lily Schreyer and all the Habitat families. The first family is the Aguetas. After their priest blesses the house, the Habitat president extends a house-warming gift of a Bible and a hammer. Then, in a small gesture that is the culmination of a massive community effort, the Aguetas receive their keys. Francisco Aguetas has tears in his eyes as he attempts to express his gratitude. Gloria Aguetas weeps openly, as do many of the 820 people in attendance. The Habitat volunteers who worked on this building blitz know that they have scarcely made a dent in the housing problem in Canada. But they also know that they have made a tremendous difference in the lives of 10 families. Following the dedications, a band made up of volunteers begins to play, signifying the beginning of what may be the city's largest street party. And finally, exhausted but excited about moving day tomorrow, the Aguetas will, for the last time, go back to their old residence. Tomorrow, for the first time, they will be going home.
Freeing People to Think

In the oil business, computers have been enlisted to help run refineries, locate new energy supplies and perform a myriad of repetitive chores, freeing people to devote themselves to more challenging tasks.

BY JANE FINLAYSON

The Brain Drain of the 1960s — the Sweet Seduction of Canadian scientists and professionals to a heady American job market — briefly tempted Bruce Orr. A graduate of McMaster's McGill University in chemical engineering, he had just finished postgraduate studies at the renowned Massachusetts Institute of Technology and was certain his future lay south of the border. He was wrong.

A magnificent opportunity enticed Orr home to Canada: the chance to join a company about to install one of the world's first industrial process-control computers in a petroleum refinery in Sarnia, Ont. That company was Imperial Oil, which was taking its first tentative steps into the then largely uncharted terrain of computer technology.

Nearly three decades later, computers have revolutionized the oil industry, as they have virtually every other field of business. In the oil and gas fields of western Canada, they turn valves on and off, monitor and adjust the flow of crude oil and natural gas as they emerge from the ground, and monitor and control every aspect of the production process, often allowing a handful of specialists to perform tasks that once occupied a small army of workers in the field. They have provided the explorers — the geophysicists and engineers whose job it is to find and develop new sources of oil and gas — with a potent armoury of new techniques.

Similarly, thanks to the pioneering work of Orr and his colleagues, computers have penetrated every function of refining (the process by which crude oil is transformed into gasoline and a score of other fuels and petroleum-derived products), removing much of the tedium from repetitive jobs that formerly had to be performed manually and ensuring consistent product quality.

Indeed, it is difficult to think of a single aspect of the business that has not been touched by the computer. The automated service station, the calculation of when a household will need a new delivery of home-heating oil, automated inventory control, streamlined accounting procedures that benefit both customer and company and the "paperless office" are but a few examples of how the modern-day descendant of the abacus has transformed every area of Imperial's operations.

It is a technology of course, that we have come to take very much for granted. Only occasionally, when we recall some past drudgery that technology has now banished for ever (perhaps such a simple thing as changing a paragraph in a letter) do we ask ourselves rhetorically, "How on earth did we manage before we had computers?" Says Bruce Orr: "We did things the hard way."

Twenty-five years after Orr joined Imperial, his enthusiasm for the Sarnia refinery project is undiminished. "It was a tremendously exciting time," he says. "We literally lived inside that machine, which was easy enough because it filled an entire room, and built it from the inside out. It was a spectacular showpiece." The computer was an IBM 1800, known to its handlers by a variety of names (the odd one impolite, when the technical hoopla was especially exasperating), but one name said it all — The Brain.

"We were in awe of it," says Orr. "In truth, in terms of the equipment we have to work with today, it was primitive, but at the time it was state of the art and we were adventurers in a brave new world. Man hadn't even landed on the moon then. We quickly became addicted to the computer's power and promise."

Come, almost overnight, was the need to walk endlessly around the labyrinth of pipes that make up a refinery, monitoring gauges and manually turning hundreds of valves; suddenly the computer did it.

At the outset, it was difficult to convince people that the
computer could do it. "Brut," says Orr, "we ended up thinking people for challenging us every step of the way, because that's why, finally, it worked so well. The breakthrough came when our computer consistently delivered reliable results that emulated their own best performance, but much faster. Once they realized they could trust it, they never looked back." The story today is that Orr's desktop computer does more and works much faster than that ruminating rain-sized monster that automated a major section of a refinery.

The ability to work differently, more effectively and more quickly has been the force driving computer technology into every corner of Imperial's business. And it's a nonstop process. In the company's refining operations, for example, new computer techniques are currently being integrated with existing ones to develop even more powerful tools. Process control, the initial break-through that liberated workers from thousands of mundane tasks, is being complemented by a new system known as "plant computing." This, in effect, takes automation another giant step forward, well beyond the basics of opening and closing valves. This is the "thinking" about ways of operating a refinery or any other facility more efficiently.

Over the past few years at Imperial refineries, dozens of existing computer programs will be integrated into single systems that can provide information about every imaginable aspect of plant operations. An operator who wants to check any piece of equipment will be able to call up its file on a display and see the complete record of its technical performance and its operating and maintenance history. He or she can also learn when the equipment might be expected to fail and obtain step-by-step instructions on when and how to replace it with minimal downtime for plant operations. An operator who wants to check any piece of equipment will be able to call up its file on a display and see the complete record of its technical performance and its operating and maintenance history. He or she can also learn when the equipment might be expected to fail and obtain step-by-step instructions on when and how to replace it with minimal downtime for plant operations. An operator who wants to check any piece of equipment will be able to call up its file on a display and see the complete record of its technical performance and its operating and maintenance history. He or she can also learn when the equipment might be expected to fail and obtain step-by-step instructions on when and how to replace it with minimal downtime for plant operations.

For Pierre Côte, an Imperial refining systems advisor and engineer based in Toronto, the melding marriage of process control and plant computing is pure serendipity. "It's a very exciting area," he says. Imperial has invested over $1 billion to improve its internal systems and networks that keep Imperial working around the clock, day in and day out. They perform largely mundane but critical tasks: electronically linking retailers of Esso-brand products across Canada with the company's Toronto and Montreal headquarters. Imperial has invested over $1 billion to improve its internal systems and networks that keep Imperial working around the clock, day in and day out. They perform largely mundane but critical tasks: electronically linking retailers of Esso-brand products across Canada with the company's Toronto and Montreal headquarters.

Côté has been involved in systems that link more than 1,000 service stations across Canada with the company's Toronto and Montreal headquarters. This includes a computer system that links more than 1,000 service stations across Canada with the company's Toronto and Montreal headquarters.

It is the job of Ryan and his team to manage the automated systems and networks that keep Imperial working around the clock, day in and day out. They perform largely mundane but critical tasks: electronically linking retailers of Esso-brand products across Canada with the company's Toronto and Montreal headquarters. Imperial has invested over $1 billion to improve its internal systems and networks that keep Imperial working around the clock, day in and day out. They perform largely mundane but critical tasks: electronically linking retailers of Esso-brand products across Canada with the company's Toronto and Montreal headquarters.

This is the story of the "seeking pay," the system is analogous to having a automated banking machine inside the pump itself. The motorist initiates the transaction by inserting a credit card into a card reader. Details of the sale are recorded for billing and inventory purposes, and a receipt is automatically issued to complete the transaction. Customers like the convenience, speed and accuracy of the system; during the initial six months of testing, the number of transactions per card increased by 15 percent.

In 1992, Imperial's data centre was ranked best in its class by a firm that measured availability, quality and productivity improvements at such centres throughout North America. At Imperial's chemical plant in Sarnia, 550 employees are no longer tied to their desks. With the help of 25 kilometres of cable, 420 well-designed buildings and a system known as LANS (Local area network), they can simply use the nearest available station to plug into their work world from almost anywhere in the plant. The advantages are speed, accessibility and cost-effective sharing. The speed of the new technology makes it possible for people of computerized systems and information to become common practice during the nineties as computer technology continues to make advances.

These advances will allow people to work almost anywhere. The availability of data and information spread throughout the computer of the decade, portable hand-held workstations that integrate personal computing, electronic mail, phone, fax and video capabilities will be as popular as the cellphone is today. If this sounds more like a futurist's dream than a realistic glimpse of the workplace of the future, consider how far the computer has come in the nearly three decades that have elapsed since Bracero brought Victor Garber to Imperial refinery. Few would have guessed the extent to which it has already changed the business environment or the way in which it has redefined our definition of work itself and of how we think of the organization.

"This technology is liberating," says Tony Abraham, who leads Imperial's initiative to reorganize the way the company operates. "It's giving us the ability to think the way we work and giving us the tools to do our work differently and more effectively. The days of simply tweaking the levers are gone. This is the gift integrated technology offers. And this is how companies will reinvent themselves to survive and to maintain a competitive edge."
Honouring Global Medical Achievement

Established by a Canadian industrialist who dreamed of becoming a doctor, the Gardiner Foundation has been rewarding medical achievement since 1957

BY DAVID SCHULZE


takes a tremendous
breakthrough in the battle against cancer

Victor Ling

“and the Albert and Mary Luderer Prize [an American award] are considered the two predictors of the Nobel Prize.”

Indeed, of the 235 scientists who have been honoured by the Gardiner Foundation since its inception 36 years ago (the foundation presents several awards each year, 81 have gone on to win a Nobel Prize.

The Gardiner Foundation was established in 1957 by James Arthur Gard-

nner “to encourage and reward individuals who have made contributions in the conquest of disease and the relief of human suffering.”

Gardner himself was neither a scientist nor a doctor but a Toronto industrialist and stockbroker.

As a young man, however, his dream of becoming a doctor was frustrated by medical service during the First World War and a discovered talent for business combined to put an end to those dreams.

Then, when he was 36, Gardiner suffered a severe attack of arthritis, a condition that would afflict him for the rest of his life.

His illness renewed his interest in medicine, and he founded the first private hospital in Canada in 1957.

Currently, a Gardiner Award carries with it a $10,000 prize, which may be used for whatever purpose the recipient chooses.

In 1957, William Gardner explains, a reward for achievement, not funding for further research. The board of trustees, made up of members of the Gardiner family and the medical community, was the number of awards to be given each year, according to the foundation’s financial position — five have been presented this year. Interestingly, the late 1950s were a period of great ferment, occurring that often more than one scientist contributes to a discovery.

Over the years, the foundation has honoured many giants of modern medicine.

An early recipient, for example, was England’s Francis Crick, who won a Gardiner Award in 1963 for his work into deoxyribonucleic acid (DNA), the carrier of genetic information, which included the development, with James D. Watson, of the DNA model, diagrams of the helix, and the understanding that the human immune deficiency virus (HIV), which causes acquired immune deficiency syndrome (AIDS), was selected through a process that takes several months.

In November, the foundation’s medical review panel considers the winners.

The panel, composed of biologists, physicians, and medical school award winners.

The panel then selects the winners, and the award is announced in January.

The foundation’s medical awards,

Tak Mak was largely responsible for the cloning and sequencing of the T-cell receptor gene.

Ronald Morton discovered the gene responsible for causing muscular dystrophy.

The United States won a Gardiner Award in 1960 for its development of the hormone-mimetic techniques as a therapeutic for leukaemia and other cancers of the blood. "Our choice of Mortimer was right on the mark," says Schultze. "He went on to win the Nobel Prize for medicine the same year."

In recent years a number of Canadian have won Gardiner Awards. Most have gone on to work within the field.

In 1994, Dr. David MacKenzie, in 1993, for his work in cell biology and vaccinology.

Ronald Morton doesn’t believe their nationality helped these people win.

He credits in part the research institutions that allow scientists to pursue their work with little or no interference.

Harry Schachter is included among those who have taken a lot of ink for the number of Canadians who have won.

"I think the Gardiner Foundation has been a powerful stimulus to our scientists," he admits. "But look at the people who’ve won. They are top people, and they’ve won, other awards. What has happened is that Canadian science has come into its own. We’ve got some damn good people."

Tak Mak, Lui-Chiu Tse, and Victor Ling are potential Nobel Prize winners," Schultze points out. "But Victor Ling is at the top. Still, he’s got a chance."

The Gardiner Foundation’s awards are the first to recognize medical discovery in the United States. Further vindication was forthcoming later this year when Michael Smith of the University of British Columbia was a co-winner (with U.S. scientist Barry
Remembering our Villages

always at this time of year i find myself thinking back to the day in december 1967 when i moved to Canada and first stepped off the little village in southwestern ontario where my parents had already settled. it was night-time when we drove into thamesville. snow was falling softly, and Christmas lights twinkled prettily on white clapboard houses. Nevertheless, i cannot say i was charmed by my new hometown. we came from a picturesque village nestled in the rolling hills of southern England, where centenarian thatched-roof cottages surrounded a village green and from which a child could wander along winding country roads and ancient footpaths through the gentle English countryside. it was the stuff of thomas hardy, and as a child i loved it and knew that i did.

thamesville, by contrast, was set in land flatter than any i had ever seen. the main street was lined for the most part with shops that to my 13-year-old eyes looked stark and utilitarian. the signs i thought large and jarring. the store seemed wholly uninviting. that night, through tired and lonely eyes, i looked through the window of a shop called "the emporium" - wept for my pretty english village, for my relatives and friends and perhaps for the childhood i had left, with all my youthful dreams, in a land that was now gone from my life.

but i did thamesville a disservice that night, for it has plenty of charm. it is an unassuming charm, to be sure, but one that is hidden in the streets' layout, in the way the buildings are arranged, and in the stories they tell. the village had never taken shape to be sure. there were a dozen or more houses, a dusky main street, a post office, a hardware store, a general store and at least one inn.

when the great western railway opened in 1854, the population of thamesville stood at about 300, sustained largely by a steam flour mill and two steam sawmills. as the century wore on, the village and its businesses expanded, and a number of families rose to prominence; some built themselves fine brick mansions. one of those families, the fergusons, also built something of a commercial center in the village; it included an opera house, where local and traveling performers entertained villagers. and thamesville is not without its famous sons. around the turn of the century william rupert davis, a welsh immigrant, took over the thamesville herald (still published today), embarking on a career that would see him become one of the country's major newspaper publishers and a member of the senate. and his son robertson davis, who was born in thamesville in 1913, became one of the nation's best-known authors.

the main street of thamesville has changed little since i first saw it, but i no longer find it uninviting. there is on that street, you see, a video store that sells chinese lanterns on trust; a pharmacy who keeps a kindly eye on all his patrons; a grocery store where attendants wouldn't think of not loading grocers into the cars of elderly people; a gathering spot for seniors where the kid's always on, and a librarian who has been known to offer to deliver books to housebound villagers. in thamesville people seem to consider it part of life to look out for their fellow residents. i do not write of thamesville because it is remarkable but because it is nice. thamesville, i think, epitomizes this country's small communities, and it is the stories like these that keep us all connected to the people, places and events that make up the canadian landscape.

in closing

lap-chee tsui discovered the gene responsible for causing cystic fibrosis

michael smith's nobel-winning discovery in genetics revolutionized basic research

in closing