From 2000 metres in the light aircraft over southwest Saskatchewan, the great plains are as vast and daunting as the storystories say, stretching in horizons so far and vague that the land seems endless. The subtle colors of spring are not distinguishable at this height. Clouds cast their shadows. Here and there the emptiness is troubled by a glisten from serpentine river or broken ground—ripples on an immensity where, for thousands of years, small groups of hunters survived in precarious balance with buffalo. And overlaid on the blankness is the grid of roads and fences, the straight lines and right angles of the colonizers' geometry.

Look at the map. The borders of Saskatchewan itself have been ruled by the same arbitrary hand—straight lines and right angles. As recently as 1905, negotiators far from the region defined this prairie province with their rulers and pencils. Down on the ground, the plains are less forbidding. The wind carries a murmur of spring: the trill of grasshoppers, the drone of a tractor. Now it is the vastness of the sky that impresses. A gentle swell in the earth gives contour to the softly colored land. Roads and railroads recede to infinity. There is a clean smell of countryside; a man on his tractor stands out against the sky.

And the loneliness too is striking. Saskatchewan people, even those who live in Regina and Saskatoon, which I've always found to be places of pleasant spirt, tend to feel at some distance from the life they read about in the press or see on television. "I think," says Wally Macht, the CTV newsreader, who grew up in North Battleford, Sask., when it was a town of about 5000, "that's one reason why a lot of people moved from the province. The life was really very pleasant, but what we saw on television or in magazines seemed to come from somewhere else, mainly the East, and we were drawn to it."

A few more than a million people live in Saskatchewan, 65.5 percent of them in rural areas. Some may see isolation, but they are not daunted by it. Self-reliance, individualism and a cheerful willingness to cooperate are special marks of Saskatchewan people. More than 40 percent of the arable land in Canada is in this province. The people of Saskatchewan have long been among the most politically conscious of all Canadians. It was in this province, on a warm day in July, 1953, that delegates of the newly formed Cooperative Commonwealth Federation (CCF) party met to enrole the party's constitution, called the Regina Manifesto. It contained 11 principles in all, calling for a decisive reordering of the nation's economic life.

"The devastation of the Depression," writes the historian John H. Archer in Saskatchewan: A History, "had convinced those present that drastic changes in the existing system must be made to ensure social justice and an answer to economic problems." Today, more than half a century later, the zeal of Saskatchewan's people on questions of politics is undimmed. The historian Gerald Friesen reports: "The average turnout (mean and median) in the 11 elections 1934 to 1975 was 81 percent. . . . One of every nine votes in Saskatchewan was a card-carrying party member at the time of the 1957 election."

Perhaps, in some distinctly Prairie way, the spirit of the men and women who stood that day in Regina was to be reflected, at least to a degree, in that unique Canadian, the man from Prince Albert, Sask., John George Diefenbaker, who, although of another party, the Progressive Conservatives, also stood passionately for social reform and became, through a vast electoral sweep in 1957, the thirteenth prime minister of Canada. Few men loved Saskatchewan more, few reflected its character more vividly.

"What is different about Saskatchewan?" he asked the province's premier, Grant Devine, a slight, modest man with intense dark eyes, whose Progressive Conservative government came to power in 1982 with 54 percent of the popular vote. He talked in his office in the marble-halled legislature in Regina, a magnificent Edwardian building crowned with a dome and set in a spacious park, which reminds some visitors of Versailles.

"One difference lies in our resources," he told me. "We have a broader balance than other regions. We lead the world in uranium production. We have vast resources of potash and heavy oil. We have gas, coal, water, minerals and 45 percent of all Canadian farmland. Our people are special. They are very compassionate—we have more volunteers per capita than anywhere else in Canada. And, although this sounds like a contradiction, they're competitive and at the
same time they cooperate well.” I spoke with Allan Blakney, leader of Saskatchewan’s New Democratic Party and premier of the province from 1971 to 1982. A migrant to the province from the Maritimes, where he was born and raised in Nova Scotia, the former premier has the conviction of a convert: “The most notable difference is our ethnic makeup. Saskatchewan is the least Anglo-Saxon of the Prairie provinces. Other ethnic minorities — Germans, Scandinavians, Ukrainians, French and others — make up more than 50 percent of the population. We’re also the most rural province, the most grain and field-crop oriented. Then there’s the severity of our climate. We tend to join together, to do things together. We are outwardly oriented. Our habit of equality is ingrained. We were more seared by the Depression than other parts of Canada.”

The Depression is remembered as the “dirty thirties.” In addition to the collapse of markets, banks and currencies, the disappearance of jobs and opportunities, personal bankruptcies and public ruin, there were nine relentless years of drought and locusts. The corn dried to dust, the wind blew it away. Farmers had a grim joke. You threw a gopher into the muckey air; if it did not fall in, it had dug in. The dust was too thick to send the children to school. Almost incredibly, the net agricultural incomes for 1934 to 1939 and again in 1937 were reported in the minus figures.

Growing up in Saskatchewan in the thirties was obviously difficult but in the experience of one of the country’s best known jurists, Mr. Justice Willard Esrey of the Supreme Court of Canada, who was raised in Saskatoon, it had its positive side. “The education was superb,” he says, “in public school, high school and the University of Saskatchewan. There were a large number of immigrant educators and professional people — from eastern Canada, England and the United States — who came West thinking they were going to take part in the populating of the great northwest, maybe building another New York. Well, the Depression ended that, and they were tattooed in Saskatchewan. They couldn’t move professionally, so in the thirties they were our teachers, and they were absolutely first rate. When, later in life, I went to Harvard law school, there was nothing they taught me that I hadn’t already heard about in Saskatchewan.”

“People had to stick together to survive,” Allan Blakney says. “There was a sense that certain institutions were enemies. Government was used as a weapon, a tool. Prosperity depended on federal agencies and world conditions, so people got together to influence government. Communications were, and still are, vital. People depend on the CBC farm broadcasts and everybody reads The Western Producer — it’s the voice of rural Saskatchewan.”

There were, however, thousands of people who gave up the struggle and left the province. In 1979, about 2100 former students of Saskatoon’s City Park Collegiate, the high school that Willard Esrey attended in the thirties, returned for a reunion. Remarkably few had remained in Saskatchewan. Of Esrey’s Grade 12 class of about 150 students, only one had stayed in the province. But today the population is growing again.

Those who stayed learned that being competitive was a fact of survival. Since the province depended on one product, wheat, being sold on the international market, Saskatchewan needed to be a competitive presence in the world marketplace. “Nobody Boated along,” recalls Willard Esrey. “If you succeeded, it was because you thought hard or worked hard or both. It has taken the rest of Canada, particularly the East, a bit longer to realize the importance of being competitive. We learned that early in life in Saskatchewan. And we had to practice it, usually by leaving. You had to get out of the nest and fly a little earlier in Saskatchewan.”

Among the many who did just that is Arden R. Haynes, chairman of the board, president and chief executive officer of Imperial Oil Limited. We talked over a cup of coffee in his office at the top of the corporation’s Toronto headquarters. A sturdy man with brown eyes, Haynes spoke of hard times and of big skies and open expanses. He was born on his grandfather’s farm south of Regina, where he lived till he was 14. He then moved with his family to Regina. When he left the province to take a bachelor of commerce degree at the University of Manitoba in 1918, it was forever.

“I knew quite early that my life would be outside the province,” he says. “Not that we were ever in real want. We had a new car, a Dodge, in 1917; that was a big event. But I had a sense that I would work elsewhere.” He has other reflections too. “I always remember how open and friendly the people of the West were. I found that a real and discernable aspect of their character. There are nice people everywhere, of course, but westerners are special. They learn to share in adversity.” He smiles. “They had strong feelings about the East. There’s the story of the Saskatchewan farmer who had a string of bad luck — crop failures, a wife suffering a long illness, a daughter running away with a traveling salesman. He’d had enough. He threw down his hat and shouted, ‘Damn the CPR!’”

The history of the province may be recent, but it is rich. The Riel uprising, in which Métis took to arms to defend the free life of the plains against the intrusion of railroads and settlers, lies just beyond living memory. And it’s little more than 100 years ago that the massacre of Indian women and children in the Cypress Hills area by white wolf hunters from Montana culminated in the long march of the newly established North-West Mounted Police. A force 500 strong marched from Manitoba to establish law and order in what had become known as whiskey country, where murder and mayhem were the order of the day. Such episodes are enshrined in the collective memory.

Not all of the province lies in the great plains. At Saskatchewan, where the South Saskatchewan River swings...
Writers and artists have tended to celebrate the Prairie. I talked about this with J.T. McLeod, an old Toronto friend who was born and raised in Regina and educated at the University of Saskatchewan at Saskatoon and who returns to the province as often as possible to renew his sense of belonging. McLeod is a political scientist at the University of Toronto and the author of two novels, Zingers and Mr. and Going Grand. A prairie tough man with a red mane, McLeod likes nothing better than to talk about Saskatchewan. "Light!" he says, with a glint in his eye, "The light is the thing! And the horizons and skies over the Prairie. You see it in Robert Harle's watercolors and Dorothy Knowles' paintings...the soft gradations, almost Japanese."

In the northern shield country, which is peopled by Indians, miners and trappers, the "heroic age" was only yesterday. I recall an aged Oblate Father I met in the mid-1960s on the road between Toronto and Montreal. Wearing a black soutane and curl's hat and carrying a small grip, he stood very straight. His weathered face and snowy beard radiated good humor. He had hitchhiked from Lake Pretturuk in northern Saskatchewan, conducting services and visiting from house to house, are deeply influenced by the Prairie spirit.

I visited one rarely seen of this Prairie ministrant in his Toronto home. The Very Reverend Ernest Marshall House is a former moderator of the United Church of Canada, whose book on the Clapham Sect, the leaders of antiabsinthe agitation in early 19th-century England, is the standard text on its subject. At 83, Dr. House's spirit is undimmed. "I went to the little Prairie village of Forger on January, 1926, as a Methodist probationer. I was 21 years old. I was given a horse, a fine horse, and told to ride south 15 miles (24 kilometres) over the Prairie, where I would find my lodging. A blizzard was blowing, but I made it." The probationer learned a lot about horses and, indeed, about men and women.

The University of Saskatchewan, founded shortly after the province itself was involved with the community from the start, collaborating with government and farmers to find the best ways to farm the new land. Descended from the ivory tower did not hurt academic quality, though. Many an eminent scholar has done sound work on the pleasant campuses of the University of Saskatchewan at Saskatoon and Regina. Here the classicist Desmond Conacher developed his early ideas about Greek tragedy; here the economist A.E. Sifton began to think about some of the emerging characteristics of the Canadian economy. Both men now live in Toronto, but some academics, such as the distinguished political scientist and humorist Norman Ward, resist all blandishments to leave Saskatoon. The columnist Allan Fortheringham, who was born in the community of Hume, Sask., calls his native province the secret source of power.

To read The Western Producer, the weekly newspaper for farmers, is to be aware of a sophisticated population. A typical issue: January 10, 1985, reports on agricultural advances in Argentina, on grain shipments and European beef imports and, under "Poins and Poodles" on the editorial page, notes that in 1984 Britain produced about the same amount of wheat as Saskatchewan, though the country is much smaller. Given the same incentives in Canada, it stated, "these ratios would change dramatically." The same issue of the paper congratulates winners of the Order of Canada.

Shane de Vries dreams of a better Saskatchewan is proud of its famous sons and daughters. In October, 1984, Premier Deyne presented over a gala dinner in Regina at which Governor General Jeanne Sauvé, who was born in Prince Albert, Sask., was the guest of honor. The homecoming celebrations at the dinner were shown from a diaspora that includes so many leading Canadian artists it seems to justify Ernest Marshall House's good natured description of the province as a nursery for celebrities. Three of the nine judges on the nation's highest tribunal, including the chief justice of Canada, are from Saskatchewan, so are the governor of the Bank of Canada, the commissioner of the RCMP and assured deputy ministers, college presidents, church dignitaries and military and industrial leaders, not to speak of a wealth of talent and genius in the arts and media.

In a single lifetime, the political mapmakers' abstraction has become a genuine Canadian province, a nursery of great Canadians, a place to live and a place to remember. Some, with a sense of exile, remember the unending summers of childhood, the smell of sweetgrass and rowed bars, the big sky and blue distances. Others remain to endure the winters, the harsh blizzards, the plains lying white to the limits of imagination, like the page on which the writer will write some overwhelming message.
THAT FIRST BREAK

Remembering Prairie years

BY ROBERT COLLINS

ILLUSTRATIONS BY MURIEL WOOD

In one respect the summer of 1937 was a tough time for a kid looking for a job. Not that our southern Saskatchewan village was mired in recession; indeed, all of Canada was heading into a depression, post World War II prosperity. But was there ever a year with enough summer jobs? And, at age 22, I was reaching far beyond my grasp for the first time in my life.

I could have spent an idyllic vacation on my parents' little acreage on the outskirts of Shantrock — population 87 — only 10 kilometres from the farmhouse where I was born. It would have been easy to walk away from the crop and help tend the pigsty, the two cows and the flock of barred Plymouth Rocks. I could have gone to Saturday-night dances and tried to date the local girls with whatever cash was left over from my three years in the RCAF after a year at the University of Saskatchewan. There were local jobs pitching wheat sheaves or driving tractors for $60 a month and all the fried chicken you could eat.

But no ordinary job would do. I had to be a writer; that much I’d known since I was 10. Our year of arts and science at university had convinced me that a degree wasn’t a sure road to the written word — a newspaper seemed the only possible entry. But the summer-job market was flooded with other student-veterans, and I was up against the eternal dilemma of every young job hunter: employers wanted experienced help, but how could I get experience if nobody would hire me?

I desperately needed my first break, that magical moment in life when someone or something strikes you down the right path.

My credentials were impeccable, I thought, as I tapped out newspaper job applications on my new Remington portable. But the real story lay unwritten between the lines.

“Editor of the Shantrock, Sask., paper.” Some paper. It was written in longhand and cranked out on a duplicator in purple ink.

“Stringer for the Regina Leader-Post, 1945.” The ‘stringer’ at that time was a shy, gawky teenager who’d only once been farther than 32 kilometres from home he lived on. I sold the Leader only a handful of items at 10 cents an inch.

“Contributor to the RCAF newspapers.” True, everywhere I went — training camps in the West, Lancaster bomber bases in Yorkshire, England, and finally a British army of occupation base near Hamburg, Germany — I could sneak away from my hated job as a烟草 mechanics. I inflicted my amateurish writings on any camp newspaper that would have them.

“Graduate of the Newspaper Institute of America correspondence course.” Alas, the starting point for many a hopeful. Its slogan was: “How do you know you can’t write?” I signed up in 1941 for a fee of about $100 — a huge sum in those days but payable in long-running installments. For three years, the institute’s bantam manuals traveled in the bottom of my kitbag all over Canada and western Europe. The editors-by-correspondence lavished praise on every completed assignment. Sometimes I wondered if they criticized anything.

I wrote confidently to 80 dailies and weeklies across the West and sat back to wait for the best offer.

Opportunity did not hammer at my door, however. For three weeks the silence was deafening. Then, a few terse notes trickled in. Panics. I invested in a trip: four hours on the train, catching CPR local to Moose Jaw 36 kilometres from home, another 61 kilometres on the main line to Regina and a night in a tacky hotel near the station.

The Leader-Post hadn’t responded to my application. Surely the editors
just needed their memories jogging. "I'm sure he'd love it, but he's never seen from Shumzak?" In case this didn't work, we continued with a plan to use the train with an arm load of irresistible story ideas. "Here this kid, it's natural," they said. I just laughed, and before we left, a comedy-restaurant woman greeted me with a smile and a warm embraces. We all laughed until the lights went out.

For an hour I sat in Regina's Victoria Park, across from the Hotel Saskatchewan, its windows and my parade ideas for the novel. My protagonist, a park attendant for a kudus or clouds of pipe smoke. The remaining editorial staff of seven, including the spots and society editors, sat in the open at ancient desks, sharing telephones — except for the senior reporters. Harold Dyer, veteran of two wars, who wore a suit with vest and had his own phone.

The long, sandy-haired managing editor, not much older than I, detached himself from the mess and came with outstretched hand. "Nancy," he crooned to him, "you've been a great one. You're up for a new challenge!"

"Who?" I asked. "I was just thinking of taking a break."

"No, no. What I meant was — yes! We're thinking of you, too!"

I was surprised, but I accepted it. "You really mean it?"

"Of course! We think you're the perfect person for the job!

The following day, I received an offer from the Times-Herald. I accepted and started work immediately. I found the job challenging, but I enjoyed the work. I was able to contribute to the newspaper and to the city I loved. I was grateful for the opportunity and appreciated the support from my colleagues.

My friend, the Managing Editor, visited me at home one day. He brought me a small bouquet of flowers and congratulated me on my new job. "This is a great opportunity," he said. "I'm sure you'll do well."


The next day, I arrived at the Times-Herald offices. I was greeted by the Managing Editor, who introduced me to the other members of the editorial staff. I felt welcomed and encouraged. I was ready to start work.

I worked hard and quickly became familiar with the paper's style and expectations. I enjoyed the responsibility and the challenge of writing for a respected newspaper.

As I continued to write for the Times-Herald, I learned more about journalism and the importance of accurate reporting. I also gained a better understanding of the city and its people. I felt proud to be a part of such a dedicated and hard-working team.

In conclusion, I am grateful for the opportunity to work at the Times-Herald. I am excited about the future and I look forward to continuing to contribute to the newspaper and the city. I am thankful for the support and encouragement of my colleagues, and I am determined to do my best in this new role.
One evening last November, a man named Max Melnyk slowly inspected the brand new curling rink in Norman Wells, a tiny community of about 600 people perched on the high banks of the Mackenzie River about 145 kilometres south of the Arctic Circle. Occasionally, Melnyk would drop to his knees and run his hand over the ice as if to smooth out any tiny imperfections before the community’s first bonspiel, which was only a week away. The rink was built by volunteers like Max Melnyk, a field executive officer with the Northwest Territories government who spends his days as an executive administrator and his spare time working on community improvement projects. “The curling rink,” he says, “provides an opportunity to build community spirit in what has been, so far, a very transient town.”

One aspect of Norman Wells that has not been transient, though, is the presence of Imperial Oil Limited, which, now more evident than ever, is reflected in the town’s other new landmark, the central processing plant. This massive assembly of interwoven pipes, compressors and pressure vessels forms the heart of the company’s Norman Wells expansion project, which, at a cost of somewhat less than $550 million, has just gone into production. By the end of the year, it will be delivering about 4400 cubic metres of high-quality crude oil a day to refineries and markets in southern Canada. While the symbols of a settled community are now more obvious, Imperial has been a constant fixture in Norman Wells since the company drilled its first commercial oil well there in 1920. Later, a small refinery was established, which still produces fuel for northern customers. It took the Second World War to offer a glimpse of what the future held for Norman Wells. The U.S. and Canadian governments, together with Imperial, constructed a pipeline from Norman Wells to Whitehorse, in the Yukon, as part of a bold attempt to provide aviation fuel to the U.S. war effort in the northern Pacific. At the time, an employment ad warned prospective workers about the realities of working in the North: “This is no picnic. Men will have to fight swamps, rivers, ice and cold. Mosquitoes, flies and gnats will not only be annoying but will cause bodily harm. If you are not prepared to work under these and similar conditions, do not apply.” Despite such a caveat, however, more than 50 000 men poured into the frontier to take part in this unique engineering task. The Canol pipeline was finished barely a year before the war ended. And although only 180 000 cubic metres of oil flowed through it, the pipeline made history — the oil was to be used to fuel aircraft. Imperial bought on new reserves, it was possible that by the end of the decade its production would have declined to half of what it is today.

While it was no secret that a large oil reserve existed at Norman Wells, its size wasn’t determined until 1978, when Esso Resources geologists determined that about 40 million cubic metres of oil could be recovered if the company focused the engineering and technological skills it had gained in the Arctic on this area of the Mackenzie River. In order to reach the resources, the company needed to construct six man-made islands in the river. The man-made islands stand today like sturdy sentinels, visible down the river from the community of Norman Wells — permanent but largely unobtrusive additions to the landscape. The construction of artificial islands in the river was necessary because it was there — directly beneath what the Dene call “Denchor,” or Great River — that the crude oil was most accessible. Fortunately, says Terry Robertson, the former construction superintendent for the project, “after 13 years of building islands in the Beaufort Sea, most of the industry construction expertise was available within Esso Resources.”

Norman Wells: a vision of future northern development

The company began drilling 164 wells — on the mainland and the natural and man-made islands. While the man-made islands tend to be perceived as having presented the most formidable construction challenge, it is the central processing facility that is considered by many to be the real design and engineering coup. With the help of scale models, the plant was designed and constructed in 64 separate interconnected modules and operated by specialist. Providing there was enough oil to make it worthwhile and that it was possible to get regulatory approval to build a pipeline. And Imperial, like other integrated oil companies in Canada, was facing a slow but steady decline in the value of its conventional petroleum reserves. Bob Peterson puts it plainly: “Unless the company brought on new reserves, it was possible that by the end of the decade its production would have declined to half of what it is today.”
transported 1350 kilometres to the Norman Wells site. "It was like hooking up a giant Lego set," says Bob Peterson. The plant processes the crude, separating gas and water from the oil before it is shipped south or transferred to the refinery. As well, the plant is the source of power not just for the Esso complex but for the community.

All of this extraction and development work is dependent on a major pipeline that connects Norman Wells to a southern pipeline distribution system in Alberta. Once the oil is processed, it is fed into the just completed, $300-million pipeline, built by Interprovincial Pipe Line (NW) Limited, that runs 870 kilometres from Norman Wells to Zama, a tiny, remote outpost in northern Alberta, where it connects with a system that takes it southward.

It is no wonder then that Phil Airhart, the northern affairs manager for Interprovincial Pipe Line, says, "As the first modern-day pipeline north of the sixtieth parallel, it was subject to a lot of environmental scrutiny. I don't say that begrudgingly. It is simply a necessary price you pay for working in this environment." Jim Dayell, Esso Resources' project manager for Norman Wells during the construction phase, adds, agreeing, "I felt as if we were living in a fishbowl." And that won't change. Environmental and social concerns remain important now that the oil is flowing and the community and surrounding regions must deal with the ongoing operation of the oil field and pipeline. Beyond its significance in the field of energy, Norman Wells represents a vision of future northern development.

One of the ironies of the North is that an environment so harsh can be so fragile. The land does not quickly recover lost flora or fauna. The interrelationships of nature are as vital as they are delicate. Even so, efforts to protect the environment often move into uncharted territory. "Every oil spill, no matter how tiny, is reported to the management of Norman Wells," says Roland Moberg, production superintendent in charge of the process and field facilities. "We can't take any chances up here." The man-made islands were carefully designed to ensure that

People of Norman Wells: sharing responsibility for the project's success

northerner ice nor the flood waters of spring would threaten the safety of the people or the environment. The island's surfaces are two metres higher than the highest flood levels ever recorded and long upstream slopes cause ice to ride up on itself and break into harmless fragments. And to ensure that no machinery stands in danger of being sheared away in the unlikely event that ice passes over the site, the wellheads are built below the surface of the islands.

The pipeline system is equally protective of the environment. Norman Wells crude oil, which is light and remains fluid at temperatures well below the freezing point, is cooled to ground temperature before entering the pipeline so that it will not thaw the frozen ground or disturb the vegetation. Also, pipeline pressure sensors detect any oil loss from the system and pinpoint its location for quick shutdown and remedial action.

With production now under way, the promise of long-term prosperity remains to be fulfilled. So far, though, the economic benefits to northerners have been significant. Consider that Esso Resources estimates that it has spent more than $50 million on goods and services supplied by more than 200 northern businesses since beginning the Norman Wells expansion and that Interprovincial Pipe Line estimates it spent more than $50 million on northern goods and services during its one cleaning and two construction seasons. But spending that kind of money in the North is more complex than it would first appear. "We broke the project into small work packages," says Jim Dayell, "so northern businesses could adequately compete with those from the South." And Phil Airhart, speaking about the pipeline construction, adds, "We worked hard to avoid creating a boom-time atmosphere only to have it end after the pipeline was built. We didn't encourage new businesses to form that wouldn't be economically viable after the project had been completed, but rather sought out established businesses."

There were exceptions to that rule, however, when it became clear that the formation of some businesses might well lead to long-term career opportunities. Under those circumstances, Esso Resources actively encouraged the formation of partnerships and joint ventures with native groups.

One such effort is Sheathed Drilling, a joint venture between Esso Resources and Dene Cho Drilling Limited, a well drilling and servicing company owned by the two dominant native groups of the region, the Dene and Missel. What began with little more than a chair and an ashtray less than two years ago is today a thriving drilling venture. John Koyczan of Sheathed now finds himself sitting at a desk that is threatening to disappear under a pile of drilling reports. Sheathed's mandate is exceptionally broad for a small company. It was given a contract to drill 60 wells for Esso Resources and, while doing so, train Memet Dene drillers. George Brown. Esso Resources' employment and community relations adviser for production operations in Norman Wells, can see a growing interest in the kinds of opportunities Esso Resources offers young native men and women. Recently, he took a trip to Yellowknife to take part in a career day for local high-school students. "The response was tremendous," he reports. "They're asking all sorts of questions about the company. They really want to know what opportunities there are." Max Melnyk was brought north as an opportunity for Esso Resources and the government to work together. "The territories need the revenue that development will bring," he says, "the people need jobs, and companies like Esso Resources need people."

The social impact of resource development in the Northwest Territories is now beginning to be felt. The Norman Wells expansion is giving a clearer understanding of both the benefits and the stresses that such development inevitably brings. "We've got three potential projects on the horizon," continues Melnyk. "The Polar Gas pipeline, the possibility of oil development in the Beaufort Sea and increased exploration in the immediate area. Norman Wells' population could reach 3000 within the decade, and if that happens, the pressure on the social structure could be severe."

Bob Peterson is equally concerned about the future. "The project has been a tremendous success," he says, "and Norman Wells has answered some of our 'what if' questions about northern development. But it hasn't answered all of them."

He is concerned by everyone connected with northern development. Yet behind such realistic caution lies, it seems, a collective sense of pride in having developed something significant and correct and of having learned about things that no one ever thought about. "I think it turned out," says Jim Dayell, "that successfully managing the social and environmental aspects of the project was as gratifying as our technical accomplishments." Throughout the North, it will take the continued close cooperation of the various governments, native peoples and major corporations such as Esso Resources to ensure that growth and development are well managed. But it seems clear that the long awaited recovery of Canada's frontier petroleum resources has begun in Norman Wells. O
"I must go down to the seas again, to the lonely sea and the sky..."

SUCH SHIPS AS THESE...

Ours are times when every point on earth is within easy access. And yet, last summer, when the tall ships rode into our ports like majestic ghosts from a forgotten era, we turned out in millions to admire and marvel.

And so we should have. Ships like those, within the span of a century, laid down patterns and conventions of trade that made our world possible and established the economic wealth of Europe and North America.

But our wonder is more truly owed to the ingenuity of the men who, with few resources beyond traditional manual skills, designed and built such ships — and to the men who sailed them with little safeguard beyond their own experience, instinct and hardihood.

Boat-building is surely one of the oldest of human skills, a necessity on a planet where water predominates. The use of sail may be almost as ancient, but its potential was not realized until late in human history. Single square sails were used only as a supplement to the power of oars, which were regarded as more manageable and reliable. Even the sails of such early oceanic voyageurs as the Phoenicians, Vikings and Polynesians were rudimentary.

Just as is often the case today, technical advances were impelled by the demands of war.
Conflict among the kingdoms of medieval Europe called for naval power, warships rigged with several masts and an expanse of sail proved superior to traditional oared galleys. Sail power and the invention of such navigational aids as the compass ushered in the age of exploration and colonization. By comparison with those that were to follow, the ships that explored the New World and the Indies, though tall of mast, were very small and not particularly seaworthy. The disaster that overtook the Spanish armadas proved that however formidable high-sterned cannon-laden galleons may have seemed in battle, they were no match for the fury of the sea. The character of the men who sailed such unwieldy vessels, and of sailors of all ages, was caught by the 17th-century poet George Chapman:

Give me a spirit that on this life's rough sea Loves I save sails fill'd with a lusty wind; Even till his sail-yards tremble, his masts crack; And his rapt ship run on her side so low; That she drinks water, and her keel ploughs air.

Unfortunately, but inevitably, the potential wealth revealed by exploration provoked further conflict between the colonizing powers. Not until the last quarter of the 18th century did it dawn on them that the mere possession of colonies was futile if they could not be developed and exploited in peace. And so an uneasy peace was arrived at, which survived, with only minor eruptions, throughout the 19th century. International commerce expanded rapidly and the golden age of the sailing ship began.

The shipyards of Britain and Europe enjoyed the advantage of many years of experience in building warships and initially monopolized the building of large cargo vessels. But, after the American War of Independence, shipyards in New England and Maritime Canada, using excellent lumber from nearby forests, began to flourish.

In the 1830s, a young shipwright from Nova Scotia named Donald McKay added to the advantages of American ships by designing a revolutionary new hull, concave at the prow, that sliced through the water and greatly increased speed. The new ships of this design, called clippers, carried between 2000 and 3000 tonnes of cargo and were usually four-masted ships, with as many as five sets of square-rigged sails on their two foremasts. Their speed in the long haul more than compensated for the expense of the larger crews needed to man them.

There's a certain irony in the fact that the Yankees, who had rebelled against English rule over a tax on tea, eventually came to dominate the profitable international tea trade with the towering China clippers they built.

There was no shortage of cargo to be carried:
emigrating settlers and manufactured goods, raw materials such as wool, cotton, hemp, pelts and lumber; luxuries that had become necessities - tea, coffee, cacao, silk and furs; and, shamefully, opium for China and slaves for the New World.

The great ships, often away from home ports for many months at a time, traded from port to port, like floating warehouses, selling a cargo here for profit in order to take on a cargo that would be more profitable elsewhere. Captains, given a free hand to trade, were sometimes sanctioned to sail even their own ships abroad if there was enough profit in it.

But there were more fateful reasons for ships not returning to their home ports. As Joseph Conrad, the sea captain turned novelist, put it, “The sea... has no generosity. No display of manly qualities — courage, hardihood, endurance, faithfulness — has ever been known to touch its irresponsible consciousness of power.” The incidence of shipwrecks during the age of sail was appallingly high. With no means of communication available, ships and their entire crews simply disappeared. For all the craftsmanship and care invested in their construction, sailing ships were in continual need of repair and maintenance. And their seamen, obliged to handle sail in the worst of weather, continually risked injury and death.

Why would anybody choose so hazardous a life? Again, Joseph Conrad explains: “There is nothing more enticing, disenchanting and enslaving than the life at sea.” For a rebellious or adventurous boy, bored with the drudgery of rural life, running away to sea was the customary escape at the time. However harsh or disillusioning such a life might prove to be, its aura of danger was usually addictive. Most sailors at the time had no home other than their next ship.

It would be easy to dismiss our fascination with these surviving ships as merely a romantic longing for times that seem simpler and less intense than our own. But there is an intrinsic grace of form in ships, one, as those were, from natural woods and a unique vitality in their response to the natural forces of water and wind.

Even those who, like the poet Henry Wadsworth Longfellow, saw them in their heyday and tasted the reality of sailing in them were as entranced by them as we are:

I remember the black wharves and the slips, And the sea-tides tossing free, . . . .
And the beauty and the mystery of the ships, And the magic of the sea.

The day is bound to come when there are no more tall ships afloat. But for myself and, I suspect, many like me, they will always be there, in a far corner of the imagination, waiting for some wind of memory to fill their sails and carry them further over the sea of history.
Each summer, the quiet southern Ontario community of Sarnia resembles a resort town. On sunny weekends, possibly the best French fries in the world can be found alongside beer at the Bluewater Bridge, which spans the St. Clair River and connects Canada to the United States.

There is nothing here to suggest that five kilometres away, one of the largest petroleum and petrochemical complexes in North America is operating, 24 hours a day, seven days a week. Indeed, oil and gas can travel right across the city — through downtown — before turning a corner and without a hint of fumes or the smell of the sprawling Esso complex laid out like a vast collection of beehives. Beyond it are 14 more refineries and petrochemical plants, clustered together in what is known as “Chemical Valley.”

Sarnia is only an hour’s drive from the place where North America’s first oil well was dug (at Oil Springs in 1857), and in 1871 it became the site of one of North America’s first oil refineries. In 1890s, it had the largest refinery in Sarnia, and it has been producing oil for more than a century.

About the only thing that will never change is the basic nature of the business. Oil refineries have expanded their products and operations but everything remains the same. Some of the products and operations have become more sophisticated, they are, at the same time, becoming safer and cleaner. This is true at all of the country’s refineries.

The Dartmouth plant near Halifax harbor, for instance, has reduced oil and other contaminants in the effluent going into the sea by 94 percent since a biological water-treatment system was installed in 1980. The Strattona refinery in Edmonton, which was totally rebuilt in 1974, is bringing the city a large refinery complex. It is the size of the original facility, yet noise levels have remained the same. At the Sarnia complex, the refinery is making strides in limiting its phenol emissions. Even the minor amount of phenol makeup is a byproduct of the refining process, and scientists in Sarnia have been concerned about its presence in emissions since the 1930s. “We’ve been chopping away at the phenol problem for years,” explains Mike Priceham, Esso’s environmental conservation superintendent, “and last year we finally got our emissions levels lower than the government’s objective.”

To meet or better government regulations is an ongoing challenge. Richard Berry, manager of the lco refinery near Port Moody, B.C., says “Environmental protection is as much as we do as employee safety around here.”

And Doug Cook, Imperial’s manager of environmental control in Toronto, confirms this: “A strong environmental ethic,” he says, “goes right through the whole company.” It is Cook’s job to coordinate various environmental programs and protection efforts within the company. “We do that because the environment is part of our business,” he says. “We have a commitment to being a good neighbor.”

Dr. Paul Knettig, environmental adviser for the refinery, agrees. “The emission of pollutants and cens from our plants is not as serious as the environment,” he says. “It is an issue, but it is not as serious as the environment. The environment is part of the process.”

The refineries control the amount of pollutants and emissions from their smokestacks. They are equipped to handle pollutants that are not visible to the naked eye, and they can return sludge and oily wastewater that cannot be burned as fuel within the refinery to the land as a passive addition to the environment.

And that is just the beginning. Pink points out that all company refineries are near, or in some cases, have virtually become a part of, residential areas of local cities because of urban growth. Moreover, he points out that “while the refineries share some similar operating features, they also are very different from one another. Environmental control at each location is specific.”

The Strattona and lco plants both process high-quality, low-sulfur crude oil.
year to pick up the 200 or more cargoes of gasoline and other petroleum products destined for delivery along the east coast. The tankers carry water as ballast for stability, says Bryce, and before they can load products, the water, which picks up some oil from the tankers' compartments, must be pumped into a shore tank designed to separate oil from the ballast water.

Last year, the Dartmouth refinery replaced its old ballast water tank with a larger one. The new tank has a capacity 10 times that of its predecessor. The larger size, says Hank Bryce, provides more setting time and enables the oil and water to separate fully. The commissioning of the new ballast tank has significantly improved the quality of the effluent entering the harbor. "The new system," he says, "also improves efficiency by cutting the ballast discharge time from half a day to improved tanker turnaround times by more than 30 percent."

The refinery, with the most complex collection of environmental challenges, however, is the Sarnia operations. To the south of it are members of Chemical Valley, to the north is Sarnia itself, to the west a major international waterway and to the east some of the richest farmland in Canada. The Sarnia refinery must strive on two fronts to ensure environmental protection. It must work closely with its industrial neighbors and officials from the Ontario ministry of the environment to ensure that the sum of the emissions from the area's industries does not exceed acceptable environmental limits. At times, unique meteorological conditions can cause higher than normal ground-level concentrations of emissions from the Chemical Valley industries. These conditions are detected by a state-of-the-art computerized, ground-level instrument-monitoring network. When emissions threaten to exceed acceptable levels, the ministry of the environment calls a Lambton Industrial Meteorological Alert, or Lambiot. For short. It is one of the latest environmental protection efforts of the Lambton Industrial Society, North America's oldest industrial group devoted to environmental protection and safety. Imperial was one of its three founding members in 1952. "Once the alert has been called, environmental protection can be good business not simply a matter of being a responsible corporate citizen but in economic terms. The Sarnia plant's efforts are a direct example of this," says Bryce. "The Dartmouth refinery's ballast system. At the loco refinery, Sholdun's composting technique significantly reduces the volatile oil and creating a valuable construction material."

But more often than not, environmental protection must be viewed as a necessary cost of doing business. When the Sarnia refinery was built about 15 percent of the total cost of the refinery was spent on environmental protection. Since 1972, the Sarnia refinery has spent $27 million on pollution controls. As Doug Cook explains, "Even during the recession, when we were making cutbacks in almost all areas, the corporation, for the sake of the environment, will still fund pollution control projects. That's why the Sarnia refinery has become a model of environmental protection."

At Imperial's Sarnia complex, just as at all the company's refineries, environmental protection must be taken seriously by every employee or it just won't work. Last late summer, Bill Farrow, manager of the Sarnia refinery, wrote a letter to all of his employees, commending them on their commitment to environmental protection but adding, "However, we can still do much more to become better in this area, and we have a moral responsibility to ourselves, our families and the community to do this."

That Keen, the Sarnia refinery's environmental coordinator, says, "The job of environmental protection is divided among many people, so the responsibility for the environment is spread out, everybody gets involved and the necessary attention can be devoted to details. We're not for that."

I couldn't do my job."

The attention to detail that Keen talks about is evident in almost every area of the refinery. Bob Heath, a refinery supervisor for energy conservation and loss control, coordinates a team of mechanical and technical employees who monitor more than 5000 valves, looking for gas leaks so small they can only be detected with sophisticated gas sniffers. This effort also demonstrates how working for a better environment makes for a more efficient refinery. Last year, says Heath, the company saved $500,000 by stopping or eliminating small gas emissions.

It is becoming clear that the refinery was completely rebuilt. As part of the program, the refinery is equipped with numerous silencers, mufflers and noise absorbing barriers, and, wherever possible, special insulation has been installed to reduce noise further. And for those areas where noise still exceeds 85 decibels, employees are required to wear protective ear muffs.

As each year passes, our society becomes more and more aware of the delicate balance that exists between our industries and the environment. "Our technology for detection," says Doug Cook, "has become more and more sophisticated. Our ability to understand and interpret the significance of the results of our detection is lagging a bit behind. Ten years ago, we measured concentration in parts per million. Now, sensitive detection devices regularly measure it in parts per trillion. Perhaps people now realize that it's dangerous or safe. And the answer is often the subject of intense technical debate because the effects may be impossible to measure and take a long time to appear." It is because of that uncertainty that Imperial considers government standards the maximum level its emissions can reach. "Meeting gov- ernment regulations is what you have to do to obey the law and stay in business," says Cook. "In many instances we can do better and we do." He adds that the company is finding that its environmental efforts are now moving into areas where there are no government regulations. Hank Bryce, the Dartmouth refinery's manager, adds, "It's part of our job to take appropriate action to protect the environment even when not required by guidelines or regulations. Some people think we don't move on environmental issues until someone tells us to, but that isn't the case. It wasn't so long ago that industrial pollution was seen as a sign of prosperity and growth. Then, the "smokestack" view of employment and prosperity; it has all changed now. Today we expect our industrial neighbors to take our safety and well being into consideration. In short, we expect a corporate conscience when it comes to matters of environmental protection. As high as that expectation might seem, Imperial's refineries aim to do just that."
A SUMMER SPLENDOR

The cottage as tradition

By Ted Ferguson

Illustration by James Hill

The doubt pulled at my mind all the way north. I was 14 years old, a city boy with a passion for jukeboxes and Gene Krupa movies, and there I was, jammed into a small, gray Austin with four adults, traveling up Vancouver Island to an isolated summer cottage. As I had never spent any appreciable amount of time in the woods, I had the unsettling feeling that I was in for two weeks of unwinding boredom.

My parents and my aunt and uncle didn’t, of course, share my concern. While the car puttered up and down the mountainous gravel roads on that warm summer day in 1950, they chatted vigorously and at great length. I can’t quite remember their conversation, but I imagine it was about the same things they always talked about—sunsets on the lake, deer sightings, the hope of averting past cabbage losses...

After a miserable long drive, we arrived at the lake. My aunt’s and uncle’s cottage was a low, wooden structure with odd-sized windows and a marvelous, screened veranda. My uncle had built it using scrap lumber and junkyard materials. The veranda faced the lake, which, in those days, had only a few cottages on its shore.

Moments after our arrival, my aunt bounded through the door making the most efficient, most beautiful noise on earth. She was wearing a tartan kilt and matching tam, and every ounce of breath she could spare was devoted to the bagpipes pressed against her. Delighted and amazed, I watched her march into the trees, playing “Scotland the Brave” loud enough to split the roots beneath her. “She keeps the pipes here because she can’t play them in Victoria,” my uncle explained. “The neighbors complain.”
That was when I first began to understand why, as a child, I had never been able to avoid the lure of the lonesome, almost untouchable, the preserve of the lonely lakovarn and farmer. The monastery and the church had joined to secluded retreats during the last 100 years to be revitalized for modern use, to lure back to the people, temporarily, to shed urban restraints and customs.

There are no official histories to prove it, but the data appears to have more cottages than any other nation. In Canada and England, cottage beaches are a thing of the norm, and in most U.S. states, if you want your private own hideaway you'd better inherit or have a very generous income.

In Canada, the cottage ownership spans all classes. I once met a factory worker at Alnbera Beach, a resort community outside of Edmonton, who told me about a weekly vacation in a very small, one-room dwelling with the walls and the floor made of tiles. The workman, a bank executive, spent his weekends in a small, three-bedroom house similar to the one he owned in a faraway suburb.

The need to give summer retreats a sparkling new appeal to their allure, using new techniques, tools that are used in roofs and troughs. The opening of the Cottage Beach House is a unique, carefully planned house for the cottage traveler. It is designed to create a sense of enclosure, while providing a glimpse of nature's beauty.

Cottage living is a very social event. They visit one another in canoes and skiffs, and on their return to the bus, buses filled with醉酒。a driveway through the woods to the cottage, they are happy to see their neighbors and friends.

The cottagers are generally very social people. They visit one another and in canoes and skiffs on their way back to the bus, buses filled with the sound of children's laughter and the crunch of leaves underfoot. They are happy to see their neighbors and friends.

It is a way of bringing out the strangest decorative touch in people. I've gone across a fantastically arranged rock path, spray-painted in bright colors, circles, and shapes, until you reach the cottage.

The cottages themselves are not to be conformed to a rigid standard. Some are rough-hewn, some are smooth, some are shaped structures only slightly bigger than tumbled clumps of leaves. The cottages are perfect in their own way.

All the summer cottages and their owners are a part of the society. When the first cottagers started leaving the cities in the 1870s, they got together for croquet, tennis, and other outdoor activities. Their summer homes, small and large, humble and chic, were ornamented with cushions, rugs, and other furnishings. The Union Jaks and wicker porch furniture.

Before World War I, middle-class people were Georgian Bay and Muskoka, north of Toronto. By the turn of the century, the north shore of Georgian Bay was peppered with the impractical mixture of tans, log cabin, inns, yachts and historic homes. The life was as graceful and unhurried as the steamships that passed among the islands.

R. A. Macauran, former president of the Lake Huron Association, said that the coast had a different kind of wild-life problem. The lake was eating the garden. He tried a shotgun in the air when he saw them approach, and the birds would go away. But they soon came back. Finally, after the animals had become accustomed to the presence of humans, the fire was put out and the ducks were allowed to stay.

In one case, the fire was put out and the ducks were allowed to stay. It was a special place where I once saw a family of ducks traveling noislessly along for their morning swim. Well, I have.

There are approximately one-and-a-half million cottagers in this province. The Ontario Cottager's Association Inc. is trying to estimate how many more people would dearly love to join them.

The disposal of industrial waste isn't an easy problem on most Ontario lakes, but there are other problems, too. People who wash their clothes in the lake, boat owners who defoil dumping laws, and villages that use large amounts of water to irrigate their own crops. The problem is that the lake is very big and it needs help.

As for snakes, Ruth H. McCaus, an ontario author, says that 100 years ago, "I have never woken up to see a dead silence!"
In Closing

One Sunday afternoon in the middle of May more than 30 years ago, when I was in my early teens in Nova Scotia, I left our house along with my father and walked down the street past the bridge and out onto the wharf in Glace Bay, where he and I went every Sunday in May. It was as if we were hoping that after the long winter on the East Coast we might hear the first words of spring at the door of the sea.

My father was a saltwater man. He came from generation after generation of fishermen in a village in Cape Breton, Gabarus, and though he was destined to spend his life in an office in Glace Bay, he spent his dreams upon the water. Often on winter Sundays he would sit at a table with albums of snapshots of schooners and yachts and a boat called a cape island and a faded picture he’d taken of one of his boys, then five years old, standing at the wheel of the Bluenose with Angus Walters himself.

But when May came and the ice in the harbor began to break and start its slow drift out into the Atlantic, he and I would go together to the harbor, where, near the wharf, boats slept beneath the snow and where, on a Sunday afternoon, the silence of the sea commended with the silence of the sabbath.

Spring was always slow. Even in those final days of May we could stand at the mouth of the harbor and watch the last ice floes, still within sight of the shore. In a few days the sun would be warming the earth, but the ice would remain upon the wind so that even today, so many years afterward, when I think of spring I remember a special fragrance — the warm smell of earth in May mingling with the perfume of the first lilac — drifting through the streets of Glace Bay on a wind off the water that was always cool.

We went to the edge of the water in spring, not only because in my father’s mind the spring and the sea were inseparable, but because at that season of the year so many of his friends and family members were also there. Some were lobstermen who, when May came and the light began to stay in the sky, would go to the harbor in the evening and descend into their small boats, which were tied to the wharf. A gallery of men and boys looked down on them, watching them get ready for the season and listening to the murmur of their voices drifting upward along with the putt, putt, putt of old engines. Any day now they would put out together at the opening of the season, rounding Table Head, taking the cold wind and hoping for a peaceful sea.

My father’s uncle lived off the water. He was a swordfisherman, captain of his own boat, a fine cape island in which he and his crew of brothers-in-law and cousins fished the waters a very long way from home. Each spring, a few weeks after the season for swordfish opened, he would send us word that we could go out once more — just for the day. We would rise while the sky was still black and, wearing three layers of clothes, walk to the wharf, where, amid the thump of rope on the deck and the smell of gas and salt and old fish, we would head out of the harbor, rounding the head of land and begin the four-hour journey to arrive upon the fishing grounds at the break of dawn.

To a boy, the life of the swordfisherman seemed filled with things that were manly, adventurous and fraught with a hint of danger. Once we arrived on the grounds — where there was nothing but the heaving green of the water and no sound but the slapping of the sea on the boat — my father’s uncle would cut back the engine and one man would climb the mast to a perch on top, from where he could survey the water to the edge of the sky itself. Another would clamber to the bow and then edge his way out along a narrow walk to a tiny stand well beyond it. They were ready; the engine picked up the day’s work was beginning.

One day in the late spring of 1919, the man high over our heads on the mast shouted a sighting to starboard. There was a churning and a heaving as the boat changed course and took on power. Beyond the bow, the man poised on the stand, his eyes shielded from the sun by a long visor, raised the harpoon. The engine stopped. Silence. He threw the harpoon, the long rope attached to it trailing like a snake as it slid into the sea. It was a strike. The small harpooned, tied to the end of the rope, was dropped over the side, and then the dory, two men aboard, put out across the sun-washed sea. For almost an hour they rowed near the barrel until the fish, tiring of the chase, was theirs. It was for the taking. That day we took aboard a swordfish twice the height of a man, its bill destined to find a place of honor on a living-room wall for decades to come.

In the evening in those days, when the boats returned, the wharf was almost always crowded, as half the town came to view the catch and to wonder at the price and the weather for the next day. In that time and place, the swordfishermen were special men. Most of them, like my father’s uncle, had never been far from home on land, but were endowed with wisdom that only seasons on the water could confer upon them.

That spring was to be my last on the water. The next May I found a summer job inland, boarded a bus and have not been at Glace Bay harbor since. It is probably just as well, for a few years later the swordfish left that part of the Atlantic, carried away by the changing current of the mysterious sea, just as in their own time, my father and the men I remember were carried away by another current to another shore.

But this spring, as I pass through the fifteenth year of life, the recollection of those days seems worth preserving, not for nostalgic reasons alone, but because those voyages with my father remind me of his origin and my own and the sea that is the origin of so much of life itself. Surely, no one will mind therefore, if on some spring day this year, I take up our voyage one more time in memory, rounding the head, hearing the cry of the gull and the break of the wave, the wind carrying us again to the distant waters of his dream.
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Volume 69, Number 2, 1985
Issue number 377

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by Sherman Hines/Masterfile

Published in English and French by
Imperial Oil Limited, 111 St. Clair
Ave. W. Toronto, Ontario, M5W 1K3.
Text may be freely reprinted or used
on radio or television unless marked
copyright; a credit would be appreciated.
Permission should be obtained to
reproduce illustrations. The contents
of The Review are listed in the
Canadian Periodical Index.
ISSN 0700-5156

Typesetting by Ken Graphics
Color separations by Boston Graphics
Printing by Clauske Lithographing Limited