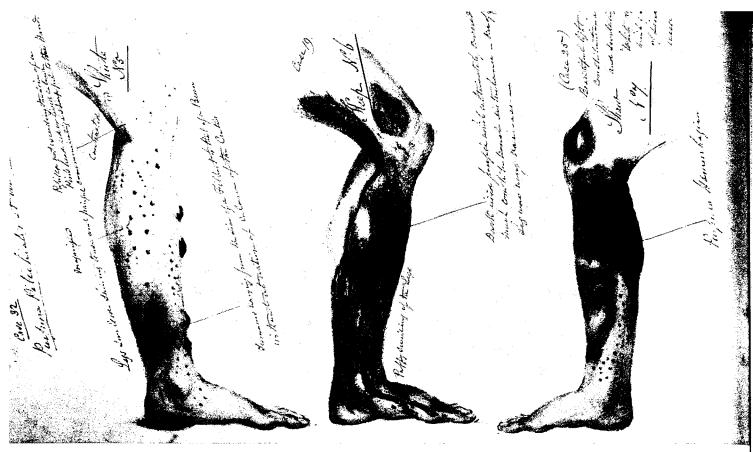
SEASON OF GOD CHEER

THE EARLY EUROPEAN EXPLORERS OF NEW FRANCE DREADED THE LONG AND DEADLY WINTERS. BUT FOR THE PEOPLE WHO CAME TO STAY, WINTER EVOLVED INTO A TIME OF ADAPTATION, CELEBRATION, AND EVEN GOOD HEALTH. *BY MAIRI COWAN*

INTER WAS AN ARDUOUS SEASON FOR THE EARLY COLONISTS IN NEW France. The bitter cold froze cider in barrels, wine in chalices, and ink in inkwells. Even the great St. Lawrence River turned to ice, severing transatlantic routes. Icy, isolating, and inevitable, winter was central to how people thought about New France. As Samuel de Champlain put it, "it was difficult to know this country without having wintered there."

Those who wrote about winter, once their ink had thawed, were often surprised by the severity of the season. Their geographical knowledge had led them to believe that the similar latitudes of New France and Old France would mean similar climates as well. Jacques Cartier stated confidently that the two regions were "lying in the same climates and parallels." The Jesuit Pierre Biard was more aware of a gulf between theory and observation when he wrote that New France should have the same seasons and temperature as France, but that it nonetheless must be admitted that New France is colder.

Writers suggested a variety of explanations for the climatic divergence. Some attributed the cold to the direction of winds, or to the height of the mountains. According to Biard, New France was cold because it was watery and because it was an uncultivated "infinite forest." He was ignoring the fact that thousands of hectares of land actually were under cultivation by Iroquoian farmers, but perhaps he was hopeful that winter would become milder once the French did more farming.



Henry Walsh Mahon made this illustration of the effects of scurvy while serving as a Royal Navy surgeon on a ship going to Australia in 1841.

Winters did not grow milder, or at least not much. "All the winters are very cold in this country," Marie de l'Incarnation, an Ursuline nun who arrived in Quebec in 1639, wrote to one of her counterparts in France. As the new inhabitants learned how to live in their wintery land, winter went from being a season of death for the first French explorers, to a season of adaptation for the curious colonists of the mid-seventeenth century, to a season of robust good health for the rapidly growing population of Canadiens. With assistance from the First Nations and a growing appreciation for the differences between Europe and North America, the inhabitants of New France pushed away the mortality of winter and learned not just to endure the season but to engage with it.

Jacques Cartier's report of his 1535-36

voyage conveyed an optimistic assessment of "fertility and richness" in the St. Lawrence Valley. Winter, when it came, left a sharper impression. Snowfalls accumulated to a metre or more, rising above the bulwarks of Cartier's ships, and these ships became trapped in the thick ice of the river from the middle of November until the middle of April.

The expedition's most serious problem was scurvy. The legs of the afflicted grew inflamed, their sinews contracted and became black as coal, and they "had their mouths so tainted that the gums rotted away down to the roots of the teeth, which nearly all fell out." Cartier reported that by the middle of February fewer than 10 out of the original 110 were still in good health. The disease was unknown to Cartier -



A 1574 woodcut of the four humours. An imbalance was thought to cause disease.

he was apparently unaware of the problems Portuguese explorer Ferdinand Magellan encountered with scurvy during his 1519-22 voyage to circumnavigate the globe.

Cartier had the body of one of the victims opened to see what he could learn. His observations were not comforting: "A large quantity of dark, tainted blood" issued from above the dead man's heart, his lungs were gangrened, and his spleen looked as if it had been rubbed on a rough stone. Rather than seek help immediately for the sick and dying, Cartier actually made his men work harder, forcing them to hammer away noisily below decks. He did this to avoid appearing weak to the Iroquoian-speaking people who lived in the area. Cartier was suspicious to the point of paranoia about the motivations of Donnacona, the leader of the Stadaconans who lived in a number

of villages in the vicinity of present-day Quebec City.

Despite Cartier's misgivings, a remedy finally came from the very people he mistrusted. Dom Agaya, one of Donnacona's sons, told Cartier that he had been cured by the juice from the leaves of a tree called annedda. When Cartier asked if there were any nearby, Dom Agaya sent two women with Cartier to gather the leaves and demonstrate their use. The fact that not more than twenty-five of the French succumbed to scurvy is surely thanks to the medical advice of Dom Agaya, whose annedda - possibly white spruce - saved many lives. And yet Cartier gave his thanks to God for the cure, not to the people who actually provided it.

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In the following century, Samuel de Champlain read Cartier's accounts and therefore knew something of what to expect from a Canadian winter. He was still caught ill-prepared, however, when the French expedition led by Pierre Du Gua de Monts attempted a settlement on Île Sainte-Croix (in modern-day Maine) in 1604. He admitted that "winter came upon us sooner than we expected and prevented us from doing many things we had intended." Snow started to fall at the beginning of October, the colonists were short of food and fuel, and again they were devastated by scurvy. Champlain described symptoms reminiscent of those suffered by Cartier's men, including rotting flesh in the mouth, loose teeth, pains in the limbs, and severe weakness. "In brief," he said, they "were in such a state that the majority of the sick could neither get up nor move, nor could they even be held upright without fainting away."

By late winter, thirty-five of the seventy-nine were dead, and more than twenty were dying. Champlain had bodies cut open, but he could find no cause for the disease, and soon even the surgeons fell ill. The French thought to use the same remedy that Dom Agaya's people had provided to Cartier, but the local Indigenous people did not know of the *annedda* from Cartier's account. It is unclear if the Wapaponiyik (also known as Wabanaki) peoples did not use the same remedy or if they could not understand what the French were asking, since their Algonquian languages were completely different from that of Donnacona's St. Lawrence Iroquoians. The interpreter on the voyage, an African or Luso-African named Mathieu Da Costa, might have been able to explain the problem, but unfortunately he did not leave an account.

The incidence of scurvy among the French is not surprising from the perspective of modern medicine, given the shortage of vitamin C in their foods. The seventeenth-century writers who tried to understand the disease relied on both ancient authority and first-hand experience, and at least some noticed the connection with winter and its diet. Marc Lescarbot, an author and lawyer who accompanied de Monts and Champlain on an expedition in 1606-1607, thought that scurvy was caused by salted meats and bad provisions in general, combined with poor air and a generally unhealthy disposition in the body. His humanist leanings can be seen in his emphasis on the bad effects of "melancholic" meats that produce "melancholic" blood and in his drawing upon classical authorities such as Pliny and Galen. He observed that the disease appeared only in winter, a fact he linked to the ancient medical theory of the humours: As winter arrived, "vile and excessive humours" drew inward, feeding "that black and bilious humour, which is especially abundant at this season, and ... produces its effects at the patient's expense." It was for him in accordance with both reason and personal experience that "the tender herbs of springtime" were "a sovereign remedy."

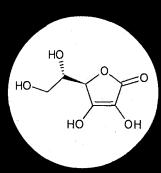
Champlain, less inclined to cite medical writers of antiquity, said the disease "comes altogether from eating too much salt food and vegetables which heat the blood and corrupt the inward parts." He noted that these foods were provisions for the winter, and he thought that winter furthermore "checks the natural heat and causes greater corruption of the blood." He too observed that the sick recovered in the spring, which "made us believe that the change of season restored them to health rather than the remedies which had been prescribed for them."

SCURVY TIMES

Scurvy starts with malaise and lethargy and advances to bleeding gums, loose teeth, bruised skin, exhaustion, severe pain, swelling, fever, convulsions, and, if left untreated, death. Throughout history, it often struck people during harsh winters or long sea voyages.

THE CAUSE

A lack of vitamin C (ascorbic acid) brings on the disease. Discovered in the 1930s, vitamin C is required for making collagen, a protein found in connective tissue. Without collagen, the body literally falls apart.



THE CURE

Vitamin C is found in fresh foods such as fruits, vegetables, and even raw meat. In the dead of winter, evergreen trees will do. In 1536, Indigenous people taught Jaques Cartier how to use leaves and bark from "the tree of life" to treat scurvy.



THE BEER

The Acadians stayed healthy with spruce beer. Try making your own with 200 grams of spruce tree shoots, 2 litres of water, 40 grams of yeast and 40 grams of sugar. Combine the ingredients and set aside to ferment for several days. *Santé*!



Winters had undermined early French attempts at settlement, but the settlers would endure once they adapted to the cold and learned from their Indigenous neighbours.

During his first winter at the new site of Port-Royal in 1606-1607, Champlain took a creative approach to providing fresh local food. His "Order of Good Cheer" held a banquet each evening, at which a variety of dishes were presented by members. Their entrance followed that of a member in charge, who marched in rather grandly with a napkin on his shoulder, the wand of office in his hand, and the collar of the order around his neck. Such a ceremony surely did much to raise morale, and the food that each member procured once every fifteen days helped to achieve the more basic objective of survival. Contributions included duck, goose, partridge, lark, caribou, otter, bear, and raccoon; Lescarbot declared moose the most tender, beaver tail the most delicate. Lescarbot also pointed out that the scourge of scurvy still killed four of their men who were "either downcast or slothful," though according to Champlain everyone found the food beneficial to his health "and more profitable" than all sorts of medicine we might have used."

That winter at Port-Royal was milder than the one at Sainte-Croix had been, but the first winter at the habitation of Quebec in 1608–1609 was very hard. A "great gale" and a "heavy fall of snow" came in mid-November, but then the snowfalls stopped, creating a serious problem: The local Montagnais (Innu), accustomed to hunting large game in the winter, could not take advantage of deep snows to track and chase their prey. These allies of the French were now themselves at the edge of starvation, and in an unusual turn of events it was the newcomers who shared some of their provisions. Then scurvy struck again, making eighteen sick and killing ten, while five others died of dysentery. Of the twenty-eight colonists who had been at Quebec in the fall, only eight lived through the winter. But the French remained, their gardens and farms providing ever healthier provisions.

Sixty years later, Marie de l'Incarnation wrote that they were harvesting wheat to last them all winter and that they were preserving plums in sugar and honey. A more detailed account of seasonal food preservation is given in Claude-Charles Bacqueville de la Potherie's *Histoire de l'Amérique septentrionale*, where he says they salted herbs for soup, arranged salad greens and vegetables in cellars that became like little kitchen gardens, and provided for themselves meat, fowl, and game, which would be conserved frozen for the whole winter. Some even filled their cellars with winter snow so that they could keep meat fresh and beer cool through the summer months.

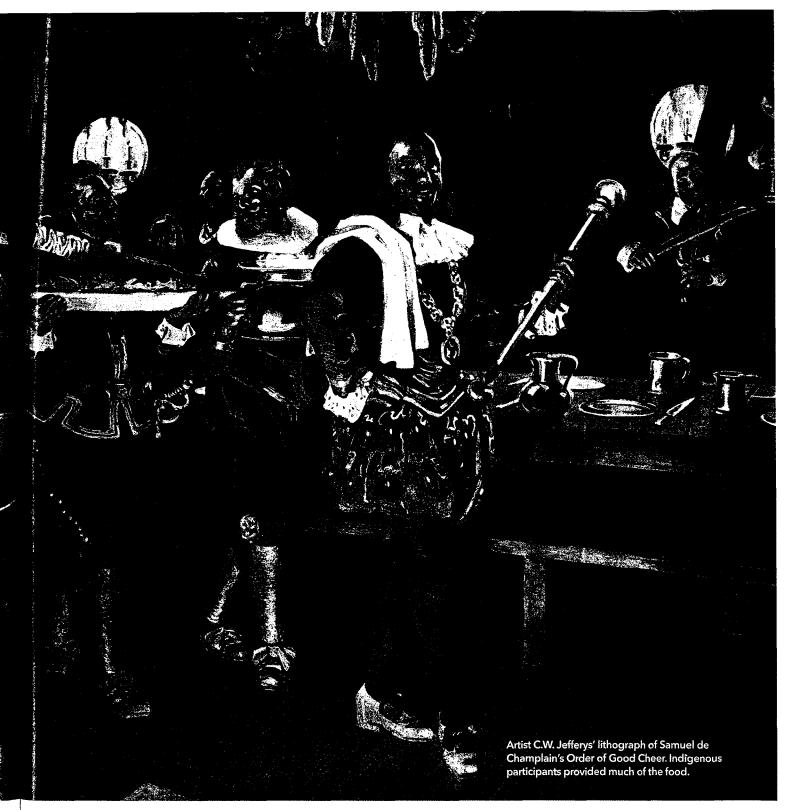
Very cold winters could damage or kill fruit trees brought over from Europe, but trees bearing wild fruit survived. The French colonists were becoming less like the European trees that were vulnerable to the cold of a Canadian winter and more like the native plants that could withstand the climate. They were being grafted onto a North American stalk. This grafting helped them develop what is sometimes called "traditional ecological knowledge," a cumulative body of site-specific knowledge about how living things are related to one another and to their environment.

Such knowledge did not always come easily. When the Jesuit missionary Paul Le Jeune wintered with the Montagnais in 1633–34,



his inability to endure the cold astonished his hosts. He said that he was so frozen building shelters that only fire could thaw him. When he assured the Montagnais that he really was very cold, they felt his hands. "Finding them quite frozen, touched with compassion, they gave me their warm mittens and took my cold ones," he said. After helping Le Jeune in this way several times, they told him not to winter any more with them, for it would kill him.

Le Jeune had clearly not developed much traditional ecological knowledge during that one winter, but over the course of many seasons the settlers in New France did learn. They had a lot of help from those who already possessed a lot of traditional ecological knowledge,



as is clearly shown in the area of transportation. Champlain described how the Montagnais used snowshoes during their winter hunts, tracking moose and other animals through deep snow: "When they go hunting they make use of certain racquets, twice as large as those of our country, which they attach under their feet, and with these they travel over the snow without sinking."

It was not long before the French colonists adopted this means of travelling, too. The Jesuit superior of Quebec wrote in 1626 that the French in Quebec crossed the snow on snowshoes, saying, "this is the custom in this country" in imitation of the Indigenous people. Imitation was not always easy — when Le Jeune first put on the "*raquettes*,"

he thought with every step that he would fall with his nose in the snow — but snowshoes were essential for getting around. Louis Armand, Baron Lahontan, who served with the French military in Canada, asserted that without snowshoes it would be impossible to hunt or even to go to church because of the depth of snow. He also calculated that a person walks much faster with snowshoes than on a built road.

For those who could adapt to its demands, winter became not only survivable but enjoyable. Even Le Jeune, with his cold hands and his limited snowshoeing abilities, grew to enjoy winter. He wrote in his *Relation* of 1633, rather poetically, "I see daylight a great part of the winter only through ice. The crusts of ice gather upon the win-

dows of my cell or little room, and fall like a lozenge, or a piece of glass, when the cold relaxes. It is through this crystal that the Sun sends us his light." He also found large pieces of ice formed by his breath on his blanket in the morning, and if he forgot to shake them off they would still be there in the evening. Le Jeune admitted that in France he almost would have believed that Canada was unbearable, but he insisted that, while "some days are very cold and penetrating," they are few, and the remaining days are "more than tolerable." He added that "the Sun is warmer than in many parts of France," and that the least activity generally banishes the rigour of the cold. Some of his activities seem distinctly playful, such as in this charming description of a practice still familiar to many today: "How often, when coming



A Canadien on snowshoes in 1722, from an illustration in *Histoire de l'Amérique* septentrionale.

to a hill or a mountain which I must descend, I have rolled down to the bottom on the snow, experiencing no other discomfort than to change for a little while my black habit for a white one, and all this is done with much laughter."

hen not rolling down snowy hills, the inhabitants of seventeenth-century New France could enjoy winter performances of plays and ballets, sometimes assisted by Jesuits and young women from the Ursuline convent. Those looking for a more solemn observance could attend Christmas midnight Mass at the Jesuit chapel, which featured singing in four-part harmony accompanied by viols and flute. Le Journal des Jésuites for 1645 describes two Frenchmen who started drinking while waiting for the service to begin one year and who were drunk by the start of the Mass. They were perhaps a bit early for Christmas cheer. Inebriation was probably more common following Christmas, and especially in the opening days of the new year, when people visited one another on foot and by sled. Cheerful celebrations continued through to Epiphany on January 6, on the eve of which Robert Giffard, seigneur at Beauport, offered to the Jesuits the gift of "hypocras," a spiced wine. From there the merriment continued into carnival and its licentious conclusion at Mardi Gras in February or March.

Were the hardships of winter diminishing? An interesting midseventeenth-century opinion was provided by Pierre Boucher, governor of Trois-Rivières. Boucher said that the cold is a bit bitter but not disagreeable: It is a cold that is cheerful, and most of the days are beautiful and serene. In truth, he assured his readers, the snows in Canada are less troublesome than the mud in France.

Boucher also addressed the subject of winter in what might be seen as a precocious FAQ, but subtitled using the rather longer phrase "Answers to questions that were made to the Author while he was in France." To the question of how cold winter really is, the author answered that some days are very harsh, but that this does not prevent anyone from doing what they have to do: They wear more clothing than normal, and they make good fires in their houses. In response to the question about what inconveniences are found in Canada, Boucher laid out, in descending order, what he judged to be the most inconvenient things. The number one most inconvenient thing about Canada was the presence of the Iroquois, who posed a risk when the French were hunting, fishing, or labouring in the fields. The second in rank of inconvenience was the mosquito -- mosquitoes were in great abundance during three months of summer, he warned. It is only when he gets to the third inconvenience that Boucher mentions winter, and even here it is not winter itself but the season's length of five months that is worthy of inclusion. Winter may have been an inconvenience, but it was no

longer at the very top of the list.

When Pierre Boucher was assuring his readers that Canadian winters were less of a problem than the mosquitoes of summer, he was confronting a well-established reputation. Marie de l'Incarnation explained to her brother that, when she was still in France, Canada was presented to her as "a place of horror," the "suburbs of Hell," and the most contemptible country in the world. Eighteenth-century Swedish naturalist and traveller Pehr Kalm reported that winter had made some of the French doubtful about whether they should take Quebec back following the Kirke brothers' occupation of 1629–32: "The greater part were of the opinion that to keep it would be of no advantage to France, because the country was cold.... Those on the other hand who had more extensive views knew that the climate was not so rough as it had been represented."

hose with the "more extensive views," as Kalm put it, often countered the Canadian winter's bad reputation with claims for the season's health-giving properties. Pierre Boucher and François de Laval, Quebec's first bishop, both stated that winter air was very healthy. Barthelemy Vimont, Jesuit superior of the mission in Canada, declared that tender and delicate girls who dread a snowflake in France are not afraid to see mountains of snowflakes in Canada, and that the long Canadian winter does them no harm other than to keep them in a good appetite. Jesuit priest and historian Pierre-François-Xavier de Charlevoix said simply that we do not know of any climate in the world more healthy than this one.

People's health during winter may well have been improving. The foods that they gathered, grew, and preserved certainly kept scurvy away. Their homes also became better suited to the climate. The beds in Marie de l'Incarnation's convent were like armoires that could be closed to keep in warmth, and the smoke rising through four chimneys came from the burning of 175 cords of wood each winter. Baron de Lahontan's observation about chimneys in houses

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A watercolour by William Henry Edward Napier shows people having a grand time tobogganing down Mount Royal in Montreal in 1864.

being extraordinarily large because of the prodigious fires suggests that many inhabitants drew on the abundant resources of the forest. By the mid-eighteenth century, buildings were being warmed by the more efficient heating of a wood-burning stove, either made of brick or stone and covered with an iron plate, or made entirely of iron and cast at the ironworks at Trois-Rivières.

Even with this new technology, houses were often cold. Some had single- or double-paned glass windows, but others had windows made of paper. Homes were often built of stone, but stone walls were poor insulators. According to Kalm's *Travels into North America*, wealthy people in Quebec City said that a strong winter wind "pierces through walls of a moderate thickness, so that the whole wall on the inside of the house is covered with snow, or a thick hoar frost; and that a candle placed near a thinner wall is almost blown out by the wind which continually comes through."

Whatever the discomforts, winter by now had a certain appeal. Charlevoix wrote glowingly of the "agreeable society" of the mideighteenth century, whose members made promenading parties sledding on snow or skating on ice. This provided a fitting reply to French philosopher Voltaire's sneering dismissal of Canada as "a few acres of snow" and accords well with Charlevoix's own Enlightenment ideals for the inhabitants of New France: "Canadians, that is to say, the Creoles of Canada, breathe at their birth an air of freedom which makes them very agreeable in commerce and in life."

An engraving in Bacqueville de la Potherie's *Histoire de l'Amérique* septentrionale illustrates how the Canadiens had adapted themselves quite nicely to their wintry world. While the author's description of winter in the early eighteenth century was still tinged with desolation — he wrote of the sadness of an empty, frozen harbour and of people scurrying like ants to make provisions for a long winter his somewhat lugubrious tone is offset by the illustration entitled *Canadiens en Raquette allant en guerre sur la nege.*

In the picture, a man stands in a snowy landscape. He is well dressed with warm clothing and, of course, his feet on *raquettes*. Vapour rises from his pipe, suggesting either his tobacco smoke or his frosty breath, or perhaps both. His vesture and pipe are North American, not European, as befits a Canadien so clearly confident on the land. His hands, strangely, are not wearing mittens, yet they suggest self-assurance as one holds a long gun while the other rests on a hip. His face is turned toward the sun. Heir to a history of death, of adaptation, and of vigour, this Canadien is entirely at ease with wintering in New France.