RANDOM HOUSE eBOOKS

The Golden Spruce

John Vaillant

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About the Book

On a bleak winter night in 1997, a British Columbia timber scout named Grant Hadwin committed an act of shocking violence: he destroyed the legendary Golden Spruce of the Queen Charlotte Islands. With its rich colours, towering height and luminous needles, the tree was a scientific marvel, beloved by the local Haida people who believed it sacred.

The Golden Spruce tells the story of the sadness which pushed Hadwin to such a desperate act of destruction – a bizarre environmental protest which acts as a metaphor for the challenge the world faces today. But it also raises the question of what then happened to Hadwin, who disappeared under suspicious circumstances and remains missing to this day.

Part thrilling mystery, part haunting depiction of the ancient beauty of the coastal wilderness, and part dramatic chronicle of the historical collision of Europeans and the native Haida, *The Golden Spruce* is a timely portrait of man’s troubled relationship with a vanishing world.

About the Author

John Vaillant has written for *The New Yorker, The Atlantic, Outside, National Geographic Adventure* and *Men's Journal* among others. He lives in Vancouver with his wife and children. Of particular interest to Vaillant are stories that explore collisions between human ambition and the natural world. His work in this and other fields has taken him to five continents and five oceans. *The Golden Spruce*, his first book, was the winner of the Governor General of Canada's Literary Award for Non-Fiction.

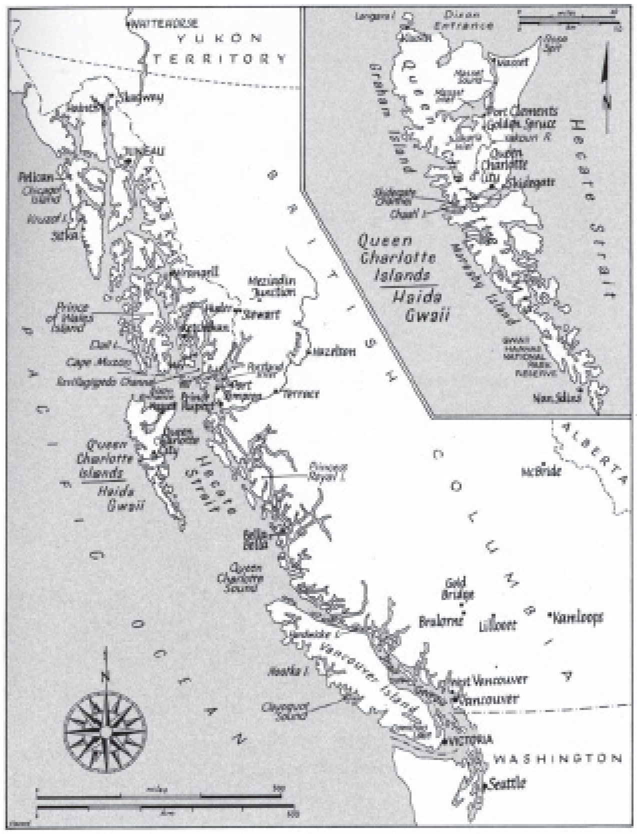
John Vaillant

The Golden Spruce

A True Story of Myth, Madness and Greed

arrow books

for Nora


YUKON TERRITORY
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Stewart
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Hazelton
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Queen Charlotte City
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McBride
Gold Bridge
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PACIFIC OCEAN
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Queen Charlotte City
Skidegate
Skidegate Channel
Queen Charlotte Islands
Haida Gwaii
Moresby Island
GWAII HAANAS NATIONAL PARK RESERVE
Hecate Strait

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All Trees of noblest kind for sight, smell, taste;
And all amid them stood the Tree of Life,
High eminent, blooming Ambrosial Fruit
Of vegetable Gold; and next to Life
Our Death the Tree of Knowledge grew fast by,
Knowledge of good bought dear by knowing ill.

— John Milton, PARADISE LOST

PROLOGUE

Driftwood

SMALL THINGS ARE hard to find in Alaska, so when a marine biologist named Scott Walker[1] stumbled across a wrecked kayak on an uninhabited island fifty kilometres north of the Canadian border, he considered himself lucky. The coastal boundary where Alaska and British Columbia meet and overlap is a jagged four-way seam that joins, not just a pair of vast – and vastly different – countries, but two equally large and divergent wildernesses. To the west is the gaping expanse of the North Pacific Ocean, and to the east is the infinity of mountains that forms the heart of what some in the Northwest call Cascadia. The coastline where these worlds meet and bleed into one another is sparsely inhabited and often obscured by fog, the mountains sheared off by low-lying clouds. At sea level, it is a long and convoluted network of deep fjords, narrow channels, and rock-bound islands. It is a world unto itself, separated from the rest of North America by the Coast Mountains, whose ragged peaks carry snow for most of the year. In some places their westward faces plunge into the sea so abruptly that a boat can be fifteen metres from shore and still have a hundred and fifty metres of water beneath her keel. The region is sporadically patrolled, being governed, for the most part, by seven-metre tides and processions of sub-Arctic storms that spiral down from the Gulf of Alaska to batter the long, tree-stubbled lip of the continent. Even on calm days, the coastline may be shrouded in a veil of mist as three thousand kilometres of uninterrupted Pacific swell pummels itself to vapour against the stubborn shore.

The combination of high winds, frequent fog, and tidal surges that can run over fifteen knots makes this coast a particularly lethal one, and when boats or planes or people go missing here, they are usually gone for good. If they are found, it is often by accident a long time later, and usually in a remote location like Edge Point where Scott Walker anchored his seventeen-foot skiff on a fair June afternoon in 1997 while doing a survey of the local salmon fishery. Edge Point is not so much a beach as an alpine boulder field that, at this point in geologic time, happens to be at sea level. It lies at the southern tip of Mary Island, a low hump of forest and stone that forms one side of a rocky, tide-scoured channel called Danger Passage; the nearest land is Danger Island, and neither place was idly named.

Like much of the Northwest Coast, Edge Point is strewn with driftwood logs and whole trees that may be a metre and a half in diameter and stacked twenty deep. Burnished to silver, this mass of wood, much of which has broken loose from log booms and transport barges, lies heaped as high as polar winds and Pacific waves can possibly throw it. Even if a man-made object should make it ashore here in one piece, it won’t last long after it arrives; within the course of a few tide cycles, it will be hammered to pieces between the heaving logs and the immovable boulders beneath them. In the case of a fibreglass boat – such as a kayak – the destruction is usually so complete that it makes the craft hard to recognize, much less find. When a fibreglass yacht was found in a location similar to Edge Point three years after it had disappeared without issuing a distress signal, the largest surviving piece was half a metre long and that was only because it had been blown up into the bushes; the rest of the sixty-foot sloop had been reduced to fragments the size of playing cards. This is why Scott Walker considered himself fortunate: he wasn’t too late; parts of the kayak might still be salvageable.

The beaches here serve as a random archive of human endeavour where a mahogany door from a fishing boat, the remains of a World War II airplane, and a piece from a fallen satellite are all equally plausible finds. Each artifact carries with it a story, though the context rarely allows for a happy ending; in most cases, it is only the scavenger who benefits. Scott Walker has been scavenging things that others have lost here for more than twenty-five years, and he has acquired an informal expertise in the forensics of flotsam and jetsam. If the found object is potentially useful or sufficiently interesting, and if it is small enough to lift, the beachcomber's code will apply. Walker was abiding by this code when he happened upon the broken kayak and began tearing it apart for the stainless steel hardware.

But when Walker lifted his head from his work he noticed some things that gave him pause. Strewn farther down the tide line were personal effects: a raincoat, a backpack, an axe – and it was then that it occurred to him that his prize might not have simply washed off some beach or boat dock down the coast. The more he noticed – a cookstove, a shaving kit, a life jacket – the narrower the gap between his own good luck and someone else's misfortune became. This wasn't shaping up to be a clean find. Walker deduced from the heavier objects' position lower down in the intertidal zone that the kayak had washed ashore and broken up on a low tide. The lighter objects, including large pieces of the kayak itself, had been carried farther up the beach by subsequent high tides and wind, and it was these that set off alarm bells in Walker's head. Despite being wrapped around a log, the sleeping bag was still in near-perfect condition; there were no tears or stains, no fading from the salt and sun; the life jacket, too, looked fresh off the rack. Even the cookstove appeared salvageable; wedged between rocks at the water's edge, it showed only minor rusting. Winter storm season, the most effective destroyer on the coast, had only just ended, so

this wreck had to be recent, thought Walker, perhaps only a couple of weeks old. He debated throwing the stove and sleeping bag into his skiff, but then, after considering some possible accident scenarios and recalculating the uncomfortable distance between a stranger’s horror and his own delight, he decided to leave these things where they lay. Besides, he thought, they might be needed for evidence. No one would miss the stainless steel bolts, though, so he pocketed them and headed down the beach, looking for a body.

Walker never found one, and it was only through the Alaska state troopers in Ketchikan, fifty kilometres to the north, that he learned the story behind his chance discovery. The kayak and its owner, a Canadian timber surveyor and expert woodsman named Grant Hadwin, had been missing – not for weeks, but for months. This man, it seemed, was on the run, wanted for a strange and unprecedented crime.

CHAPTER ONE

A Threshold Between Worlds

There was beauty, yes,
… but who would know until men judged it so.

— Ralph Andrews, TIMBER

ON THE NORTHWEST coast, there is no graceful interval between the ocean and the trees; the forest simply takes over where the tide wrack ends, erupting full-blown from the shallow, bouldered earth. The boundary between the two is unstable, and the sea will heave stones, logs, and even itself into the woods at every opportunity. In return, the roots of shore pine and spruce grope for a purchase on rocks better suited to limpets and barnacles while densely needled boughs cast shadows over colonies of starfish and sea anemones. The air is at once rank and loamy with the competing smells of rotting seaweed and decaying wood. From the beach you can see as far as height and horizon will allow, but turn inland and you will find yourself blinking in a darkened room, pupils dilating to fill the claustrophobic void. The trail of a person, or the thread of a story, is easily lost in such a place. Even the trees, swaddled in moss and draped in ferns, appear disguised.

A coastal forest can be an awesome place to behold: huge, holy, and eternal-feeling, like a branched and needled Notre Dame, but for a stranger it is not a particularly comfortable place to be. You can be twenty paces from a road or a beach and become totally disoriented; once

inside, there is no future and no past, only the sodden, twilit now. Underfoot is a leg-breaking tangle of roots and branches and, every fifteen metres or so, your way is blocked by moss-covered walls of fallen trees that may be taller than you and dozens of metres long. These so-called nurse logs will, in turn, have colonnades of younger trees growing out of them, fifty years old and as orderly as pickets. In here, boundaries between life and death, between one species and the next, blur and blend: everything is being used as a launching pad by something else; everyone wants a piece of the sky. Down below, the undergrowth is thick, and between this and the trees, it is hard to see very far; the sound of moving water is constant, and the ground is as soft and spongy as a sofa with shot springs. You have the feeling that if you stop for too long, you will simply be grown over and absorbed by the slow and ancient riot of growth going on all around you. It can be suffocating, and the need to see the sun can become overpowering – something you could do easily if it weren't for all those trees.

FROM A SATELLITE'S-EYE VIEW, North America's coastal temperate rainforests appear as a delicate green fringe adorning the western rim of the continent. Prior to the era of industrial logging, this slender band, seldom more than eighty kilometres wide, stretched, virtually unbroken, from Kodiak Island in Alaska south through British Columbia, Washington, and Oregon to Mendocino County, California, a distance of more than three thousand kilometres. Along these forests' entire length, a succession of mountain ranges forms a natural bulwark between the Pacific Ocean and the rest of the continent, and it is here that the storms which trundle continually across the North Pacific are stopped in their tracks. Rain clouds, functioning like airborne water bladders, burst open when they collide with the cooler air of the coastal mountains, and the results can

be astonishing. During the winter of 1998 a relentless parade of low pressure systems dumped twenty-eight metres of snow on Mount Baker,[1] near the border of Washington State and British Columbia (a world record); at lower elevations it rained enough to float an ark.

The mild temperatures within the long, damp corridor between the Pacific Slope and the sea have created what is essentially a vast terrarium. It is an environment perfectly designed to support life on a grand scale, including the biggest freestanding creatures on earth. All of the dominant west coast species – redwood, sequoia, sugar pine, western hemlock, Douglas fir, noble fir, black cottonwood, red cedar, and Sitka spruce – are the giants of their kind. It is due in large part to these immense trees that the Northwest forests support more living tissue, by weight, than any other ecosystem, including the equatorial jungle.

The principal differences between tropical and temperate rainforests have to do with temperature and location. Whereas tropical rainforests – jungles – are found along the Equator in the hot centres of their home continents, temperate rainforests flourish on the chilly, fogbound margins, closer to the planet's poles. These forests prefer a stable climate that is neither too hot nor too cold, and their ideal setting is a west-facing coastline backed by mountains to trap and channel large quantities of snowmelt and rain. These conditions are found in both hemispheres, but only between 40° and 60° latitude. Conifers (cone-bearing trees) in a temperate rainforest will grow continuously as long as the temperature stays above three degrees Celsius, one reason they are able to achieve such tremendous sizes. Tree species within this climatic bandwidth vary widely, depending on where in the world they grow, but it is their relationship to the sea, even more than the trees themselves, that distinguishes these forests from their inland and equatorial counterparts.

The range of the coastal temperate rainforest[2] – like that of most wild creatures – has been drastically reduced in a relatively short period of time. Until about a thousand years ago, temperate rainforests could be found on every continent except Africa and Antarctica. Once upon a time, the lush coastal forests of Japan were a trans-Pacific mirror of our own; mighty conifers grew there, attaining huge sizes in a climate similar to the American Northwest's. Today, with the exception of a few lone giants still standing in parks or on temple grounds, those forests are gone. The Highlands of Scotland, a place long associated with barren scapes of moorland and heather, hosted a temperate rainforest as well. So did Ireland, Iceland, and the eastern shore of the Black Sea. While the North Sea coast of Norway retains vestigial traces of its original rainforest, Chile, Tasmania, and New Zealand's South Island are the only places left with forests whose flora, feel, and character remotely resemble those of the Pacific Northwest, which hosts the largest such forests in the world.

Like Tolkien's Ents, the trees of the Northwest have been marching up and down the coast for eons, fleeing southward with each ice age and reclaiming lost territory as the glaciers recede. The current rebound is still under way, with the result that Sitka spruce are advancing northward into Alaska at a rate of about one kilometre every century. Western red cedar, the tree from which Northwest Coast tribes derived virtually all of their building material, has been in existence in its present range for only four or five thousand years. Thus, while individual species may be ancient and the trees may qualify as 'old growth,' the forests that contain them are mere children by geologic standards, and even by our own. By the time the first of these trees matured, human beings had been living in North America for at least five thousand years.

Until recently, North America's coastal rainforest was so poorly understood that even within the logging industry it was referred to as a 'biological desert.'[3] While the process of cataloguing and understanding the creatures that share the forest with these trees is still in its infancy, it is known that the forest floor, as well as the canopy above, is almost literally seething with life. It has been estimated that a square metre of temperate forest soil can contain as many as two million creatures representing a thousand species.[4] Andy Moldenke, an entomologist at Oregon State University,[5] calculated what might be found within the area of an average-sized shoe; he determined that a single footstep in one of Oregon's coastal forests is taken on the backs of sixteen thousand invertebrates.

Most of this activity occurs unseen, but on some level it can be felt. The atmosphere in an old-growth coastal rainforest borders on the amniotic; still and close, sound moves differently in here, and the air moves hardly at all. Because of the forest's proximity to the coast, the sea and many of its inhabitants are a strong presence *within* the forest itself. Thriving on the instability of high-latitude ocean weather and its attendant smorgasbord of nutrients, the entire ecosystem comprises a hydroponic matrix in which behaviours and boundaries we take for granted are crossed and, in some cases, reversed. Depending on tides and rainfall, salmon and trout, returning from their transoceanic odysseys to their home rivers, can be found stranded in the branches of trees while ancient murrelets, an elusive seabird that 'flies' underwater, will nest beneath their roots. Ten storeys above the forest floor, their close relatives, the marbled murrelets, launch their own subaquatic feeding missions from moss-covered nesting platforms that may be centuries old. Reaching speeds of 160 kilometres an hour, they hurtle to and fro – forest to sea and back again – like bumblebees on speed. Moving at 1/100th that velocity, ocean-fed bears – some of them as

white as a bald eagle's head – swim from island to island where they cruise the high-tide lines, their footprints overlapping with those of deer, otter, marten, and wolf. Meanwhile, seals will pursue saltwater fish deep into the forest, hauling out to rest themselves next to a tree that might have been a bear's den the previous winter. In here, the patient observer will find that trees are fed by salmon, eagles can swim, and killer whales will heave themselves into the gravelled shallows and stare you in the eye.

The Native peoples of the Northwest Coast spent most of their lives within a hundred metres of this heavily trafficked threshold between worlds. Living in such a liminal environment, it is hardly surprising that their artworks, dances, and stories focus so heavily on convergence and transformation. Nowhere else on the coast is the profound interdependence between the forest, the sea, and their shared inhabitants more dramatically represented than on the Queen Charlotte Islands.

Named after the ship of an eighteenth-century British trader, the islands are the historic territory of the Haida people, who live there to this day and call their home Haida Gwaii. On maps, the wing-shaped archipelago, comprising more than one hundred and fifty islands and islets, appears to have broken loose from the continent and gone to sea, leaving behind a noticeable hole in the snugly fitting puzzle of inlets and islands that defines the Northwest Coast. The closest land is Alaska's Prince of Wales Island, a sixty-five-kilometre sea journey to the north. British Columbia, of which the Queen Charlottes are the most far-flung part, lies eighty kilometres to the east. To the south and west is open ocean, but it is not a gradual sloping into the depths of the Pacific; it is a near-vertical plunge. The 280-kilometre-long archipelago is perched on the outer edge of the continental shelf, which here takes the form of a 2,800-metre submarine cliff. Along the islands' storm-scarred west coast, this sudden shift in sea depth generates waves big

enough to deposit drift logs atop thirty-metre cliffs, and baffling currents that can cause tides to flow, not in two directions but four. Following the archipelago's seaward contours, nearly four kilometres down, is the Queen Charlotte Fault, where the northbound Pacific Plate and the southbound American Plate grind past each other with excruciating slowness and devastating force. The epicentre of one of the most violent earthquakes ever recorded anywhere on the West Coast (8.1 on the Richter scale) was located here.

If the Hawaiian Islands had risen from the sea five thousand kilometres farther north and east, the Queen Charlottes are what they might have looked like. The islands are, in effect, a moated rainforest clinging to the shoulders of snow-capped mountains, and they are not an easy place to get to: Vitus Bering had explored the Alaskan coast and Captain Cook had made landfall in Australia before Europeans ever set foot in the Charlottes. Even now, the journey from Vancouver, via car and ferry, takes three days. People have acknowledged these islands' mystical and revelatory qualities to the point that even loggers and land-use planners employ the adjective 'magic' to describe them. Perry Boyle, a veteran tugboat operator from Prince Rupert, on the adjacent mainland, may have summed it up best when he said, 'Everything is mythical over there.' This land lying 'west of west'[6] represents a concentration of what one might call geographic essence, as if the nature and spirit of a much larger region were compressed into a space too small for it to plausibly hold. Greenhouses, libraries, and museums can simulate this effect, but Jerusalem is an example of the real thing, as are the Aran Islands, Yosemite National Park, and Delphi. Lower Manhattan is a modern urban version, and the cathedral at Chartres is an ecclesiastic one. For many British Columbians and others familiar with this part of the world, the Charlottes – or Haida Gwaii – represent a kind of 'soul

home,’ a wild, native Eden; even if they haven’t been there, it is a place whose existence they find at once stimulating and reassuring. The islands provide a link to how things were before the arrival of Europeans as well as a glimpse of a possible future.

A vivid example of how these islands seem to be a concentration of something much larger was reported by a turn-of-the-century American hunter and naturalist named Charles Sheldon. Sheldon travelled extensively across the West, including the Northwest Territories and Alaska, and he wrote several books about his adventures that have become classics of the genre. In the fall of 1906, he was lured to the Charlottes by rumours of an exceptionally rare subspecies of caribou, known only to the islands. While searching for a worthy specimen, he spent an astonishingly wet month on foot, exploring the north end of Graham Island, the largest in the archipelago. His quest led him through deep forests, up rivers, and across treeless swamp barrens where he noted a bizarre phenomenon: ‘One conspicuous feature of the atmospheric effect in that locality was an optical delusion exactly the reverse of that common on our Western plains of the United States.[7] Objects appeared very distant when they were really very near, and it required a long time to become accustomed to the short spaces actually traversed when to the vision they appeared so long.’

There is no doubt that these islands have a powerful effect on people and, as with Sheldon’s observation, the light may have a lot to do with it, perhaps because it is meted out so grudgingly. The Queen Charlotte Islands are among the rainiest places in North America; they occupy a region known to ecologists as the Very Wet Hyper-marine Subzone[8] where the total hours of cloud cover amount to more than 250 days per year. When the sun does shine it is often through a prism of water particles, and for this reason rainbows are a common occurrence here. Far rarer

but documented nonetheless are lunar rainbows; they appear as luminous ghost arches caused by a rising or setting moon shining under rain clouds. But there is more to it than water and light; the life force out here is extraordinarily strong in a literal, biological sense. Twenty-three species of whale live in or pass through the region's waters[9], and the islands themselves are home to one of the continent's highest concentrations of resident bald eagles. Burnaby Narrows, a slender tidal channel in the middle of the archipelago, contains one of the highest concentrations of sea life per square metre of any place on earth. Meanwhile, the islands' saw-toothed west coast produces mussels the size of dress shoes.

Ever since the end of the last ice age, the Queen Charlottes have been on their own, and responsibility for this lies solely with the Hecate (HECK-et) Strait. Within a space of only eighty kilometres the sea depth around the islands changes from three thousand metres to less than sixty. This relatively rapid decrease, combined with exposure to the full brunt of severe polar storms and huge Pacific rollers, can cause the strait to explode from a flat calm to eighteen-metre waves in a couple of hours. The broad, shallow channel – barely thirty metres deep in some places – was named after the British paddle-wheel sloop H.M.S. *Hecate*. Armed with heavy guns, the vessel was brought up to the Charlottes in 1861, both to survey the surrounding waters and to ensure that recently arrived copper miners wouldn't be attacked by the Haida. Naming geographical features after one's ship was a common practice in the eighteenth and nineteenth centuries, but few of these names fit their subjects as well as the *Hecate*'s did. Hecate is a Greek goddess of sorcery and witchcraft often associated with fishermen and the land of the dead. According to the *Oxford Dictionary of Classical Myth and Religion*, she is 'intrinsically ambivalent and polymorphous. She straddles conventional boundaries and eludes

definition.’ She has been depicted with man-eating dogs for feet and is known as a source of abundance of all kinds, including storms. ‘She’s a black-hearted bitch,’[10] said one veteran fisherman of the strait. ‘Sometimes I think she just wants to keep the Charlottes for herself.’ Even now, heavy seas routinely delay the 332-foot-long passenger ferry that connects the islands to the rest of the continent. The seven-hour journey can be so rough that trucks must be chained to the deck like container vans on a transoceanic voyage.

GRAHAM AND MORESBY ISLANDS form the spine of the southward-tapering Queen Charlotte archipelago, and even though Moresby is only eight kilometres wide in some places, it surges skyward in a wedge of sharp new mountains nearly two kilometres high. Hundreds of waterfalls and dozens of creeks and rivers pour out of these mountains on all of the larger islands, among them, the Yakoun (ya-KOON). The Yakoun River rises in the Queen Charlotte Mountains at the south end of Graham Island, and it gathers in Yakoun Lake before heading northward toward Masset Inlet and the sea. As the archipelago’s longest river and the source of its largest trout and salmon runs, the Yakoun represents the aorta in the greater body of the islands. The low-lying alluvial valley through which it flows is well known for its massive old-growth timber, particularly its high density of knot-free and straight-grained Sitka spruce. A valley bottom like this is what commercial loggers – who would not arrive in the Charlottes until the twentieth century – would come to know as a ‘spruce flat.’ Here, the soil is deeper and richer than on the mountainsides and this, combined with the Queen Charlottes’ mild climate and an annual deluge of rain amounting to as much as five *metres*, creates ideal growing conditions not just for Sitka spruce but for its common neighbours, western hemlock and western red cedar. Hemlock and spruce in particular are commonly

nurtured by nurse logs; these dead, rotting humus-rich trees provide a ready feast for a seedling, much the way the fruit of an apple feeds its seeds. As a nurse log is consumed by the young forest around it (a process that can take hundreds of years), the younger trees may be left standing well off the ground on stiltlike roots. Over time, the gaps fill in, but it is not uncommon to find a four-hundred-year-old Sitka spruce with a tunnel beneath it large enough to crawl through.

Of all the West Coast conifers, the Sitka spruce seems the most naturally suited to the maritime environment. Its long, narrow geographic distribution mirrors that of the Pacific rainforest, and the species shows a preference for planting itself in the teeth of the gale. Sitka spruce have a high tolerance for salt spray and they often serve as the first line of defence between the sea and the forest; their great size and strength breaks storm-driven winds that can lay waste to lesser species. Sitka spruce is the world's largest and longest-lived species of spruce; it can live for more than eight hundred years and grow to heights exceeding ninety metres, which is tall even for a redwood. Despite the colossal end result, their beginnings are almost unimaginably humble: a single Sitka spruce seed weighs only 1/500th of a gram, and yet it contains all the information needed to produce a tree that can weigh more than three hundred tons – about as much as three blue whales. While the species is common up and down the coast, these 'mega spruce' grow in only a handful of places, and one of them is the Yakoun Valley.

DURING ONE AUTUMN around 1700, on the west bank of the Yakoun River, a random Sitka spruce cone opened and let a seed like no other drift to earth. It was one among hundreds of seeds that fell that year from one among thousands of cones produced by one among the tens of millions of Sitka spruce trees growing on the Northwest

Coast. Its parent tree may well have been scattering seeds since the time of the Vikings. Were it not for the fact that an individual spruce seed's chances of survival are comparable to those of a human sperm, every parent tree would be a forest unto itself. As it is, despite as much as 750 years of fertility, a typical Sitka spruce may produce only a dozen offspring that survive to maturity. That the seed in question would be one of them mystifies people to this day.

Shaped like a teardrop and about the size of a grain of sand, the seed would have appeared identical to all the others that had been peppering the forest floor for millennia. Of its cone mates that landed on the heavy moss carpeting much of the forest, only one in a hundred would germinate. Those lucky enough to land on a nurse log would fare better, but even then the chances were one in three that they would be killed by fungi within the month. Somehow this anonymous seed with its strange message beat these abysmal odds and managed to take root. The tiny sprig would have been easy to miss in the crowded nursery of the forest floor, surrounded as it was by thousands of other aspiring trees – not just Sitka spruce but hemlock, red cedar, yellow cedar, and the occasional yew. At this stage, it would have been dwarfed by everyone, even habitual shadow dwellers like lover's moss, little hands liverwort, black lily, sword fern, and devil's club, not to mention the dense thickets of salal that can grow up to four metres high and require a machete to penetrate.

To look at this seedling – if one could see it at all – and believe that it had every intention of growing into one of the towering columns that blot out so much of the northwestern sky would have seemed far-fetched at best. In its first year, the infant tree would have been about five centimetres tall and sporting a half dozen or so pale green needles. It would have been appealing in the same abstract way that a baby snapping turtle is, its alien appearance

transcended by the universal indicators of wild babyhood: utter helplessness and primordial determination in equal measure. Despite its bristling ruff and a stem as straight as a sunbeam, the seedling was still as vulnerable as a frog's egg; a falling branch, the footstep of a human or an animal – any number of random occurrences – could have finished it there and then. Down there in the damp darkness of the understorey, the sapling's wonderful flaw was a well-kept secret. With each passing year, it dug its roots deeper into the riverbank, strengthening its grip on life and on the land. In spite of the odds, it became one of a handful of young trees that would survive to shoulder their way into the sunlight, competing with giants three metres wide and dozens of metres tall. In the end, it would be the sun that exposed this tree's secret for all to see, and by the middle of the 1700s it would have been abundantly clear that something extraordinary was growing on the banks of the Yakoun. It was a creature that seemed more at home in a myth or a fairy tale: a spruce tree with golden needles.

Unless a tree is particularly large, or unusually shaped, it will not stand out as an individual, and unless it is isolated from its mates, it will seldom announce itself from a distance. But despite being embedded in a forest of similarly large trees, the tree that came to be known as the golden spruce was an exception on both counts. From the ground, its startling colour stopped people dead in their tracks; from the air, it stood out like a beacon and was visible from miles away. Like much of the surrounding landscape, the tree was incorporated into the Haida's vast repertoire of stories, but as far as anyone knows, it is the only tree, in what was then an infinity of trees, ever to be given a name by the Haida people. They called it K'iid K'iyaas: Elder Spruce Tree. According to legend, it was a human being who had been transformed.

Although it was well known to those who lived around the Yakoun Valley, the golden spruce wasn't discovered by

scientists until well into the twentieth century. By then it was more than two hundred years old and all but impossible to miss. When the Scottish timber surveyor and baronet Sir Windham Anstruther stumbled across the tree in 1924, he was dumbfounded. ‘I didn’t even make an axe mark on it,’[11] he told one reporter before he died, ‘being, I suppose, a bit overcome by its strangeness in a forest of green.’ For years afterward, no one knew quite what to make of Sir Windham’s arboreal unicorn. Some suggested it might be a new species, native to the archipelago; others supposed the tree had been hit by lightning, or was simply in the process of dying. As it turned out, the tree was alive and well; it was just fantastically rare. So rare, in fact, that it warranted its own scientific name: *Picea sitchensis* ‘Aurea.’ *Picea sitchensis* is the Latin name for the Sitka spruce, and *Aurea* is Latin for ‘golden’ or ‘gleaming like gold,’ but it can also mean ‘beautiful’ or ‘splendid.’ Sixteen storeys tall and more than six metres around, the golden spruce was unique in the botanical world.

CHAPTER TWO

The Beginning of the End

Fancy cutting down all those beautiful trees … to make pulp for those bloody newspapers, and calling it civilization.

— Winston Churchill, remarking to his son during a visit to Canada in 1929

LOGGERS AND TIMBER cruisers were lured to the Yakoun Valley by the same hunger for opportunity and adventure that drew Grant Hadwin's grandparents across the Prairies during World War I. On the West Coast in those days, Big Timber was king, and these great, untrammelled forests must have felt to them like a new beginning.

It is hard, even now, to imagine the magnitude of the timber coming out of these woods throughout the nineteenth and twentieth centuries. Photographs taken anywhere along the coast, from southeast Alaska to Northern California, show sturdy men in heavy clothing dwarfed against backdrops of monolithic cylinders so large that they are scarcely recognizable as trees. They look, instead, like oddly symmetrical boulders, or the fallen columns of gargantuan temples, which may be closer to the truth. An elderly Haida man who spent much of his life in the Yakoun Valley felling trees for a southern lumber company indicated the breadth of the logs he dealt with every day by glancing at his ceiling. 'You'd gouge into the