



READING THE ENTRAILS: AN ALBERTA ECOHISTORY

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WHITE MAN'S CARESS

SUBDUE AND REPLENISH

In *A History of Alberta*, James G. MacGregor describes White incursions into Alberta by 1870 as:

Outside Edmonton the only evidences of the white man's caress were some missions and 10 fur trade posts In 1870, then, except for one or two whisky traders' shacks in the extreme southern fringe of the province, Edmonton House, four isolated mission stations and 10 outlying fur posts more or less tributary to Edmonton were all that the White man had to show for a century of residence in Alberta.¹

MacGregor's panglossian metaphor "White man's caress" ignored much. Horses; guns; smallpox; disappearing furbearers, bison and Native people: all betrayed the White touch. Buildings were the least of White intrusions. Those reflected small White populations, not large White ways.

In 1870—the time of *Rupert's Land Act*, the Red River Rebellion, Confederation and the solicitation of British Columbia—White people's economic activity in Alberta focused on exploitation of wildlife; developments were some wooden frame buildings; agriculture involved several acreages, introduction of horses, cows and some animal and plant exotics; and high technology was trade goods, guns and trapping equipment. Bison would last a few more years and smallpox visited again that year. With prey vanishing as the decade unfolded, the fur and meat business ground down, the bison-based boom crashing by decade's end. Then even White and Metis populations shrank, perhaps by 25%², as itinerant exploiters moved on to new killing grounds—but what plans White people had to "caress" the land!

With the plains wolf, bear and bison dead and gone; with Native people herded into their enclosures; the land was sterilized and safe for farmers. And the people came. They came from overseas, they came from down east

and they came from the northern states, filling the trains, then the land. Alberta's population increased over fourfold from 1891 to 1901. From 73,022 in 1901, the numbers climbed to 185,412 in 1906, on to 374,000 by 1911, reaching 496,525 people in 1916 after the outbreak of war. Of those, over 300,000 were rural dwellers.

Before 1921 government reflected interests of those distant institutions intent on settling and occupying the west. Their focus was not on the land and people, but on the National Policy, developing and exploiting the west for the elites of nation and empire. Homesteaders grumbled about their humble role in this scheme, gradually struggling to political action through what has come to be called "prairie populism." Farmers thought if they could just possess elected government, they would obtain control over their destinies. People today suffer the same delusion.

A monoculture of farmers stormed the ballot box in 1921's election—voting for their landed interests, their industry and their nearly unified worldview. The United Farmers of Alberta (UFA), not a political party until that year, seized the legislature, intent on deposing the national elites—CPR, eastern capitalists, eastern markets, and centrism. Agri-politics began a 50-year reign. This revolt echoed of England's Glorious Revolution and the transcendent Squires 233 years earlier. Unlike the Squirearchy, despite winning every election until 1971, usually in landslides, and ruling with oppressive legislature majorities, agri-politics seemed never to achieve its coveted social power, just political administration.³

Alberta's population grew from about 615,000 in 1921 to 732,000 in 1931. Rural Alberta matured as a grain economy, nurtured by satisfactory prices, better yields, more compliant government and occasional good fortune in the weather, at least until things turned. Just as Alberta took control of its natural resources from the federal government (1930), stock markets and resource prices collapsed followed quickly by general economic depression. Values of nearly everything in the trade-dependent industrialized world plunged, including wheat.

Economic collapse precipitated it but weather exacerbated the Dirty Thirties difficulties. Biting hot summers dried crops as they sprouted, leaving soils exposed to dirt-gripping winds that eroded millions of hectares of soil, contributing to the land's despair and production's decline. Grain prices fell to one-tenth their high. With fickle civilization abandoning them, desperate men and women reverted to hunting-gathering, begging and beseeching. Nearly anything digestible might be eaten, anything of value sold, not to build tomorrow but to save today. Ground squirrels were seen in a new, more tempting light. Few Whites thought to compare their lot with that of Native people half a century earlier.



In the Depression's depths, when everything seemed to fail, Alberta's preacher/educator William Aberhart exhorted, "get back to the Bible" and took his biblical message political. Blinded by Aberhart's bright light, in 1935 voters fled the short distance from UFA to a new movement and its grand experiment—the Christian farmer "funny-money" party/movement called Social Credit (SoCred). Albertans abandoned the UFA with solidarity peculiar to their tribal politics.

Little went right for Alberta's new premier (1935 to 1943) in his first few years in office—but rains and the reassuring winds of war returned in 1939, blowing prosperity into the luffing sails of Aberhart, his wallowing crew and his heaving sea of followers. SoCredits would hold office for 35 years, during which time oil would ascend as the new resource wealth, ultimately defeating agri-politics. Primary industries still dominated Alberta but the province was changing from rural to urban, from agriculture to fossil fuel-led, from being administered by rambunctious, parochial Christian agriculturalists to management by a more worldly, focused few.

Most arable lands (and some that were not) had been broken by war's end. Technology developed between the wars and during World War II—tank-like large tractors, self-propelled equipment, fertilizers, chemical pesticides—expanded the size of farm each farmer could manage. Pressures of trade and markets compelled farmers to adopt the new technology and expand to those new techno-economic limits or suffer defeat from their neighbour's competition. Capital substituted for humans, displacing farmers so that farm sizes grew, farmer numbers shrank. After half a century of flooding into the countryside, the deluge subsided.

Nearly two-thirds of Alberta's 1930s population was rural but immediately after war's end 45% of the population, then about 800,000 people, resided in cities. This reflected the diminishing relative importance of agriculture, the increasing importance of oil, and less so, secondary and tertiary economic activities. Although changing in form, the economy still remained dependent on what was taken from the ground. Until 1947 and Leduc, it was farming. Leduc then yielded up new horizons for exploitation leading to a next sweep of itinerant exploiters.

The quarter century following Leduc saw the Alberta economy metamorphose from one cast in an agricultural techno-morphology, to a dynamically growing one cast in a fossil fuel morphology. Founded more now on non-renewable fossil fuel, the province's flame would burn bright for as long as its flush oil flowed. The immediate postwar population had doubled by 1971 to about 1.6 million people, earning on average eight times the incomes of those from just before the war. Another million would be added over the next 20 years and per capita income would double again.



URBANIA AND AUTOTOPIA

Before World War II urban areas were scattered, modest congregations, dedicated primarily to serving surrounding agriculture. Agro-industrialization changed people's relationships to the land, driving many to the towns and cities. Oil accelerated this tendency, and, by 1970 only 30% of Albertans were rural.

For the oil patch, with its hunt-find-exploit-deplete-move-hunt wanderings, land becomes a transient, disposable resource. Peregrination is inherent to fossil fuels. Once out of the ground, oil becomes the fuel to power internal combustion engines, bitumen to pave networks of roads, and feedstocks for plastics to build modern vehicles. Its galaxy of related technology constructs the powerful, highly mobile means necessary to extract and exploit resources from remote lands—the mechanical/industrial apparatus required by global-scale agriculture, forestry, and petroleum (including heavy oil) projects. Residency was no longer required for exploitation. Information Age computer and telecommunications technology heaped on to increase people's severance from the land.

Automobile culture motored oilmen into the province and farmers into the city. Alberta's first auto in 1903 multiplied to 3,400 by 1913. Numbers jammed upward to 34,000 by 1919. Cars, buses and trucks, 890,000 by 1971, number two million today. Akin to the introduction of horses, guns and smallpox in 1730, the introduction of automobiles revolutionized Alberta, converting it to a new land inhabited by a new people doing strange new things.

The auto bloom layered roads across the land. Before the war more miles of railway cut Alberta than secondary roads. By 1946 over 800 km (500 miles) of bitumen roads and 14,000 km (9,000 miles) of gravelled roads crossed the province. That swelled to 137,000 km (86,000 miles) of public roadways in 1970 of which some 8,000 km (5,000 miles) were paved. More recently, Alberta has 14,000 km of primary, 15,000 km of secondary and 129,000 km of local roadways. These roads do not include the hundreds of thousands of kilometres of private roads and pathways whether for the oil industry, logging, farming, ranching, rural development or recreation. And where roads do not go, weekend 4x4ers, all-terrain vehicle and snowmobiles rut and wind their ways through the dying wilds. Track and tire mark nearly every square mile of the province.

Roads link Alberta's 15 cities, 117 towns and 175 villages, and surround all in radiating matrix, deep into the forests, high into the mountains, chopping and tiling the plains. They lead to every place that is any place. About 65% of Alberta's three million people live in larger cities, more than 15% reside in smaller centres. Nearly 20% live in rural contexts, nes-



tled next to the city or out encroaching the wilds, and now, from city shadows to shade of the woods, farms host a mere 7% of Albertans, only about a third of all rural dwellers.

Autos dictate the “way” in auto-culture. Its facilities—the complex of highways, streets and lanes—are the asphalt and concrete circulatory system that flows traffic to distance-sequestered components of human life. Automobiles permit home, work, store and play to be separate, specialized and distant. Thus they germinated strip malls, shopping malls, drive-in movies, fast-food outlets, service stations, freeways, parkades and suburban developments, allowing growth to expand outward rather than upward. An automotive template shapes city morphology—size, shape, structure, layout, dispersal, separation of functions and interconnections.

With automobile culture came other corridors of convenience. Electrical and telephone lines webbed the air. Water, sewer and gas line grids netted Earth carrying their commodities downstream for use and disposal. Dams interrupted rivers, diverting fresh water to some use, replenishing the waterway downstream with discharge.

To most drivers, Earth becomes a linear sterile gallery—lines of pavement and power, low-scale buildings and flashing signs, noise, and pollution. Neighbours are those at work, recreation or market, but not likely those living down the street. Home becomes residence, a location for sleeping and, sometimes, eating. Spilled flat and far, margins sprawl. Rapid growth starved the heart of the old railway town to feed the periphery of the new auto city. The inner city decays. Out of that blight, a nipple of skyscrapers marks city centre—the nexus for control—and nurses the Noosphere.

WILD TIMES IN THE BIG CITY

City development eliminates most native life forms. Structures occupy approximately one-third of city topography. Another third is dedicated to automobile infrastructure—roads, lanes, parking and garages. Only the remaining third, transitional and landscaped areas, has potential for non-human biological activity. Landscaping is geo- and bio-cosmetics. Static design replaces natural dynamics; the exotic displaces the native. Garden fashions and greenhouse genetics determine biological successions in landscape in ways calculated to enhance the image of owners not the function of the land. “Scape” triumphs over “land.” A frustrating chorus of disturbance-loving exotics, the weeds, join the larger “lawn and dandelion” habitat characteristic of cities.

Animal species similarly suffer in the city. There is the usual screech and splot of exotic birds. English sparrows, starlings and rock doves (pigeons)



compete for slop-overs with native opportunists—ring-billed gulls, magpies and crows. Robins, the common remnant native songbird, enjoys treed residential areas. The Canada goose, now wildly abundant on urban golf courses and riverine parks, distinguishes itself as being particularly synanthropic, having increased its local population by about 40 times in the last 15 years. Perhaps 10 pairs of mostly hand-reared and released peregrine falcons nest on Alberta's downtown high-rises. Developers claim this as evidence that the wild kingdom survives happily in the Noosphere and industry helps nature. Few other birds linger long in the cities.

Small native mammals sometimes persevere as opportunists or scavengers in the urban context. Coyotes seem to have found a new niche. The odd skunk, raccoon and rabbit hide out in urban ravines. A few garter snakes survive the tires and tots of the city, but it is difficult. The lower trophic rungs or steps in the ladder of life—nature's grocery stores—are systematically stripped away. Insectivores starve because insects are discomfoting, except for a butterfly or two. Anathema to civilization, insects are eradicated in chemical fogging. Swallows and bats go when the mosquitoes go; voles die with the native grasses. Most frogs have croaked, disappearing globally at rates faster than nearly any other orders. An Alberta Environmental Protection Press Release of April 10, 1997 advised that, "only 10 breeding populations of [the northern leopard frog] once distributed widely across Alberta, are now known in the province."⁴ It will be a lucky little boy who will pocket a pet frog in the future.

The trend is toward exotic. Only the most resilient or opportunistic native species survive. Magpies loot the northern oriole's nest for omelettes and the crow devours the yellow-rumped warbler's fledglings. They compete with the introduced eastern grey (black) squirrel and the neighbour's cat. Even parks, with their manicured lawns and dog-walking people, do little for wildlife while nurturing illusions of naturalness. Cities are sterile, but more than that, they represent sterility with ambition, one that leaps out, far beyond the city's bounds.

SUB-URBAN

Automobiles love the suburbs. Speed shrinks space, sponsoring sprawl. Baby boomers, with smaller families but bigger houses on even larger lots, drive this outward dispersal. Each front-drive-in garage has its attached house and each parking lot has its attached factory or office. Between them stretch lengthening, multi-lane highways and freeways constructed to embrace home, work, shopping and recreation venues. Postwar Albertans overswelled their city into the country, transforming the city's margins into acreages,



hobby farms, satellite communities and other lavish land uses. Outskirts integrated with the city through multiplying connective tissue—roadways, electrical-ways, communication-ways, waterways and sewage ways. Except holidays and weekends, sprawl became the suburbanite's natural context, the habitat of man in auto-culture.

Areas girding the city—outskirts, acreagedom and conurbation—have their successions as they blend into the rural. As the city grows, land suffers increasingly intense uses. More construction, development and landscaping displace the farms as land succeeds to urban. Satellite and bedroom communities intensify linear disturbances for utilities, roadways and other suburban connections with the city. The city periphery is alive with introduced species, exotics, life forms associated with agriculture and landscaping. Man's introduced predators, dogs and cats, free range the apron, but there is a new exotic thrust these days. Alongside horses and cows are now fallow deer, ranch elk, paddock bison, caged ostrich and penned llamas, as the butcher mind-set wildly leaps from species to species. Some native vegetation persists despite the constant threat of exotic displacement. Happily also some insects persevere and in so doing feed the few songbirds.

CITY SHADOW AND GRAVITY

City shadows fall farther than the acreages. Utilities, primary and service industries, tourism and recreation—all finger-out deep into the country. Each creates unique pressures on the land. City sourced, they consume the hinterlands. In 1911 Calgary Power started production of hydroelectric power from water captured in dams upstream of Calgary on the Bow River. Now in over 10 sites the Bow River is dammed to store potential energy, regulate flow, protect settlements from flood and ensure water supplies. Each use has its upstream and downstream consequences. When taken together, these transform a wild river into a public utility of dams, reservoirs, diversions, recreational outlets, effluent receptacles and pollution transmitters—tap and toilet for society.

Riverine habitat is the critical component of most biomes and also the most threatened. People like it as much as critters do, so river valleys suffer overwhelming development, intervention and interruption. Sometimes the development becomes so intense and congested that it corks the river valley. It corked the Canmore Corridor west of Calgary. In that conurbation, natural processes are dammed terrestrially as surely as dams cork the waterway.

Urbanites use wildlands as commercial playgrounds on grand scales—“all season, world-class destination resorts.” The pecuniary potential of Banff's hot springs whetted commercial appetites in 1883 when the train

opened them to the genteel world. After an initial flurry of claims, frauds and patronage, Banff grew to be a world-class destination resort. The use of wild land as in situ consumer goods, items of commerce and resource for exploitation, is the foundation of Alberta's tourist industry. Nature is a product that can be pieced, priced, packaged and sold but the consumer must be taken to the feast, not the feast to the consumer. Automobiles, buses and planes now feed the national parks to the people. As centrepiece to Alberta's fourth-largest industry, Waterton, Banff and Jasper provide tourism the backdrop splendour of the Rockies, the old west and wilderness recreation.

Cities avalanche out into the wilderness on weekends and holidays, democratizing the wilds, populating the forests with a new transient exploiter. Most want the theatre of wilderness but not the fact. A luxury item, only certain kinds of wilderness have value. Parks must be aesthetically pleasing; they must have opportunity for recreation use; they must be accessible and non-threatening; and they often must have amenities the affluent expect. Around the campfire phoney history can be sold, of brave cowboys and bloodthirsty Indians, of noble pioneers, respect for the land and love of the wild. This might be presented to a well-heeled voyageur from afar, prepared to pay for a suitable yarn with a pleasant ending, spun in rustic theatre with modern conveniences.

Some of the least productive habitat on Earth—mountain arête and boreal bogs—are the last refuges for beasts, for no other reason than they have kept man at bay. Tourism's new capital idea is that places formerly accessible only to mountain goats and marmots have also become items of commerce. The arête and the bog now suffer periodic infections of consumers. Whether hunting, fishing, ATVs, cross-country or downhill skiing, hiking, golfing, camping, orienteering, mountain biking or mountain climbing, urbanites swarm the wilds.

Some defend the wilderness by promoting the love of it, arguing that love motivates protection. Ironically, love lures people to it. When they love it they want to touch it. Consumer demand for wilderness is increasing and every touch has a cost. Few are immune to the need to take. An instinct to kleptomania demands they grab something when in nature—a memento, a totem, an object of natural beauty or curio; a flower, rock, leaf or berry. Often they leave something else, unwanted, behind: a dog, a cat, a disease, human waste, garbage, pitons, a disturbed site, frightened and fleeing animals, or a smouldering ember. While individual impacts appear negligible, they are cumulative. One footstep may not crush the rock jasmine, calypso orchid or alpine poppy, but 100 will.

Staging areas like the towns of Banff and Canmore develop on wilderness's margins, acting as Noosphere base-camps to provision the modern



assault on the wilds. They nurture sources for outward migration of exotic life into the wilds. They host and encourage the tourist/adventurer advance. They also lure in the wild. Nearly any development and any linear interruption act as deathtraps or sinks for native life: garbage-kills, roadkills, conservation officer-kills and train track-kills. City shadows fall deep, dark and far over the wilds.

LICENCE TO KILL

Areas unsatisfactory for destination tourist resorts are used for hunting and fishing and whatever appetite seizes the new age explorer, 4X4ing up the seismic cutline. Recreational fishing hooks many. Long ago settlers fished out east slope drainages of most native trout and then stocked these lakes and streams with exotic species of trout, their favourite species from down east or Europe. Native trout are vanishing—few having survived the plunder or pollution—so Alberta's aggressive game fish-rearing industry plants some 4 million trout (primarily non-native) in its lakes and streams every year, flushing out the last few wild trout.⁵ Then people with rod, tackle and all manner of outrageous but alluring contraptions, head out to this drive-in wilderness to reel back to nature.

Brookies, browns, rainbows and golden replace native bull and cut-throat trout. Waterways become enhanced media for the sport of hooking introduced fish, the toy of the recreational fisherman. The economics of it are compelling. The expensive and bizarre array of high-technology fisherman toys lure in businessmen who, in turn, hook and fillet the wallets of round-eyed fishermen with these gadgets. These wizardly props include fish finders, depth finders, sonic lures, echo-locators, carbon fibre fishing rods, all of which well-equipped, well-nourished, big-brained modern fishermen need to catch tiny-brained cold-blooded animals that evolved millions of years earlier.

Hunting continues to be an important business. Duck and goose hunting thins fall populations of migratory birds on course to wintering grounds. Hunting upland game birds, like trout fishing, usually involves shooting introduced species on or near disturbed lands. Bird hunters chase pheasants and partridges of Eurasia, many hatchery-reared, recently released and coop-stupid, for their reconnecting experience. Few native upland populations survived the plough, the cow and the potshot-hunting of an earlier generation. Big game hunters struggle more than other wilderness consumers for their reconnection, but with automotive equipment to take the pain from their legs, high-technology guns, bullets and hunting gear to aid in taking their allotted game, telescopes to sharpen book-tired eyes,



guides to compensate for their ignorance, the thrills are maximized while effort and risk are minimized.

By the turn of the century, nearly every animal having market value was slaughtered by “market hunting.” Whales, auks, bison, passenger pigeons; whatever could be turned to account, was. Demand collapsed when the supply died. Hunting ordinances were enacted earlier, but they had little effect in the face of more fundamental laws. In time government provided budgets, enforcement and effect to hunting ordinances but it was too late for many. The mega-faunal erasure neared completion. Perhaps 100 wood bison survived in forbidding parts of the northern forest and several hundred wapiti avoided extirpation by retreat to the wildest of the wild. Faint few antelopes survived the killing. Muleys waned. Remoteness better protected the woodland caribou and moose.

Later wapiti were reintroduced. Several national parks were established on the southern plains specifically to protect the slim remainder of the antelope—those parks later were decommissioned. Mule deer stoically defended their turf against the alien white-tailed deer and moose persevered, even advancing from time to time with their favourite browse, first successions after clearcuts. Today woodland caribou retreat to extirpation.⁶ Intact old-growth forests are essential to Alberta’s caribou and economically desirable to Japan’s pulp companies. Without room for both, the caribou appears scheduled for clearcut, too. Capital and the Crown, both possessing nearly certain knowledge of the consequences, cut on.

Gone now are nearly all predators, replaced by the human predator. Government maintains “management plans” for the remaining wolves, bears and cougar. Usually numbers are managed down. That way holiday warriors feel little competition or threat from natural predators in their heavily armed wilderness quest. Hunter selection replaces natural selection. With emphasis on the “big buck” or the “royal rack” or the “full curl,” best herd genetics are killed, stuffed and mounted. Wolves take the worst; man kills the best. Oldtimers lament the genetic decadence of today’s smaller and abnormal game animals.

In the businesslike ’90s all things must earn their way. Hunting, fishing, tourism and recreation generate revenue from wilderness in ways that surely compromise. Each use has its effects, most negative. As wilderness business continues to encroach the wild, truly wild animals retreat to the few remaining higher, colder, less productive but more secure grounds. Love might save the wilds if it were the right kind of love. But of the many kinds of love the one that nature needs most is the one that leaves some of it be.

