

The lessons of a wildfire that destroyed a town and burned for 15 months

Enlarge / The aftermath of the Fort McMurray fire.

reader comments

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At noon on May 3, the fire chief in the oil town of Fort McMurray was on TV telling everyone that the situation was in hand and they should stay at work and school and go to little league or whatever as usual. He had been watching the fire for a couple of days, but business as usual was what they did in Alberta in the spring; it was wildfire season, after all. At 2:05 evacuation orders started to come through. By 10 that night, much of the city that was not yet incinerated was burning.

The combination of extreme, record-breakingly high temperatures (91° F) with extreme, record-breakingly low humidity (15 percent), wind, and tons of dry fuel made for perfect fire weather. While this explosive combination used to be unattainable, it is occurring with growing frequency around the globe, including in areas that never experienced wildfires before.

After destroying the city and the mines that fueled everything about it, the Fort McMurray Fire went on to burn for 15 months, until August 2, 2017. *Fire Weather* tells its story, and tries to place it in the context of our warming world.

Part One: Origin Stories

The book's biography and analysis of the fire starts with a background on bitumen (pronounced BITCH-amin), which is sand mixed with tar. It doesn't burn. It was traditionally used as an adhesive, for instance in the Tower of Babel (Genesis 11:3). But Fort McMurray was built to mine it and convert it to power. Vaillant writes that doing so requires so much work that the only way it can be rendered remotely profitable as a source of energy is with the conspiracy of heavy government subsidies and an almost complete lack of regulation, oversight, or penalties for emissions. Alberta was thrilled to provide all of these.

Vaillant then goes on to describe how the petroleum industry is only the latest in a list of colonial, capitalist, extractive ventures that have ravaged Western Canada. In the 18th century, the Hudson's Bay Company ensured that beavers were hunted into virtual extinction because European men liked their pelts for tophats (they were shiny and water repellent). In the 19th century, sea otters were hunted into virtual extinction because Chinese men traded their waterproof furs for tea, spices, silks, and porcelain that they could then turn around and sell in Europe and the US. Bitumen mining near Fort McMurray began in 1967, and while it took some time to start turning a profit, by the early 2000s oil companies from all over the world had a presence there, and it was a regular boom town.

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Lastly, he gives background on fire itself as an entity and humanity's long and interdependent relationship with it. We mine and value oil and gas—in Fort McMurray and elsewhere—only because they burn. They are stored, delayed fire. He describes fire as almost sentient, and singular of focus, with an insatiable need only to consume fuel and grow.

Somewhat ironic, then, that fire is spawned and strengthened

by humanity's constant burning of fossil fuels in our own insatiable need to consume fuel and grow. It is almost as if some vengeful deity were saying, "Oh, you guys like burning stuff? Ok, we can burn stuff."

Part Two: Fire Weather

Vaillant could not find enough superlatives to describe the power, fury, strength, pure Hellishness of this fire. It was the biggest, smokiest, widest, tallest, blackest. Ever. Also, by far, in 2016, the hottest. This type of fire, only seen on Earth in the 21st century, makes its own weather; it generates hail and lightning and tornadoes, and its smoke reaches the stratosphere, 8 miles above the Earth's surface, measurably altering its composition. It mimics volcanoes.

But the hellscape he describes is not separate from the natural world; that would be far too facile a dichotomy. It is more like a dam. It is part of this world because we are, and we made it.

Part of the reason this particular fire was so vicious is because like most modern houses, those in Fort McMurray were built almost entirely out of petroleum-based products—i.e. fuel. Vinyl siding, polyurethane furniture, polyester clothing, plastic toys. Homes costing half-a-million dollars and up were incinerated in three minutes flat, with nothing remaining but the nuts and bolts holding them together.

The trees surrounding them exploded, sending embers aloft to start more fires miles away. Their backyards had grills outside, attached to propane tanks. Their garages had ATVs and pickup trucks and snowmobiles and boats, each with their own fuel tanks, and many contained ammo for hunting. All of which also exploded, as 90,000 residents fled via the single highway out of town. Being primarily white, Christian, and from the global North, they do not meet our usual mental picture of climate refugees. But Vaillant accurately notes that that is

exactly what they were. Amazingly—truly amazingly—not a single person died or was even seriously injured (physically, that is).

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Fort McMurray was lost not due to a lack of leadership, or a lack of coordination, or expertise, or experience, or data, or fortitude. Vaillant stresses that it was lost due to a lack of imagination. Risk analyst Nassim Taleb deemed this the Lucretius problem, after the Roman poet and philosopher who described it in the first century BCE:

Yes, and so any river is huge if it be the greatest man has seen

who has seen no greater before,...

And each imagines as huge all things of every kind

which are greatest of those he has seen...

Fort McMurray's firefighters had never seen such a fire in all of their years—could not conceive of such a monstrous fire—and therefore they didn't believe it could happen, despite watching the weather that enabled it continuing for two days. They controlled fire in Fort McMurray; that's all the town did. That's what it was built for. The people there just couldn't wrap their heads around a fire that was out of their control.

The firefighters in Slave Lake, four hours to the southwest, *had* seen such a fire and tried to warn their colleagues in Fort McMurray. And it wasn't that the Fort McMurray fire department didn't listen to those warnings. It's that they couldn't hear them.

Vaillant tosses around more than a few Biblical quotes—befitting the apocalyptic circumstances, especially since Fort McMurray was a pretty heavily evangelical town—and

uses some flowery language (breathing is “a biochemical analog to hope;” the fire was “broadcasting embers like incendiary confetti”). He also references Mordor and the Balrog quite a bit, and Tim Horton’s with a fair degree of frequency. (We get it: you’re in Canada.) It all veers toward disaster porn, but given the subject matter, it would be hard for it not to.

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