

# OPUNTIA 507





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**AROUND COWTOWN**

photos by Dale Speirs

So far a bright and dry summer in Calgary. The cover and these pages show flowers along the Stephen Avenue pedestrian mall in the downtown core.









**LIFE AT CHEZ OPUNTIA**  
photos by Dale Speirs

And here are some of my flowers.

This page:  
*Epilobium angustifolium*, commonly called fireweed, although technically it is not a weed.

Next page:  
At left is *Campanula rapunculoides*, colonizing an old tree stump slowly rotting away.

At right is *Lonicera brownii* cv Dropmore Scarlet, a climbing honeysuckle on the front wall of the house.









## FOOD COZIES: PART 20

by Dale Speirs

[Parts 1 to 19 appeared in OPUNTIA #432 to 434, 436, 438, 441, 442, 444, 447, 450, 454, 456 to 458, 460 to 462, 465, and 475.]

The previous installment of this review column appeared more than a year ago in early June 2020, by which time the pandemic was well underway. Calgary public libraries were closed in March 2020.

I enjoy reading cozy mysteries as disposable literature but never bought the books I reviewed. Too expensive, and easier to read for free at the library. As a consequence, my cozy reading and reviews fell to zero. I missed them, for all that I made fun of them. Now that the pandemic has waned, I was anxious to begin anew.

The Calgary Public Library system re-opened to inside users in early July 2021. I prefer the New Central Library, a two-block-long edifice which separates the downtown core from the East Village. The building has as many books as all the branch libraries combined and is easy to get to via public transit. See OPUNTIA #428 for photos just after the building opened in 2018.

I use the NCL for two reasons. Firstly, one of my other publications is the JOURNAL OF ALBERTA POSTAL HISTORY. The Central branch has the Alberta local history collections which I use to research the towns and villages that had post offices, past or present. JAPH is available as free pdfs from the Postal History Society of Canada at: [www.postalhistorycanada.net/php/StudyGroups/Alberta](http://www.postalhistorycanada.net/php/StudyGroups/Alberta)

And secondly, of course, reading all those cozies. I'm now catching up on the new novels that came out during the pandemic. How the authors handle the pandemic in their novels, or ignore it altogether, will be interesting to observe over the next few years.

I'm way off the subject of this column, but the reviews begin on the next page. When I returned to the NCL on July 19 for the first time since the pandemic began, I took this smartphone photo of the atrium. I was on the second floor, and on the other side of it you can see the bookshelves for mystery and science fiction, a substantial collection.

## Catering To Crime.

And so to business, in this case a catering business. *THE GRILLING SEASON* (1997) by Diane Mott Davidson was the tenth novel in a series about caterer Goldy Schulz of Aspen Meadow, Colorado. Given how many murders she had been involved with by now, the reader might wonder why she had any clients or friends left.

People would have noticed that if they associated with her, they had a better than average chance of being murdered. However, the explicit statement was made that she had the only catering business in town. Even so, hiring a caterer from Denver or Colorado Springs might be safer. if not cheaper.

Be that as it may, the time was August. The client was Patricia McCracken, who wanted Schulz to cater a victory party in celebration of the Colorado Avalanche winning the Stanley Cup two months earlier.

This was where it got complicated. McCracken recently suffered a miscarriage and was suing the attending obstetrician Dr John Korman and the health maintenance organization he worked for. HMOs are only found in the USA as far as I know. If I understand them correctly, they keep health care payouts under control for insurance companies by denying treatments if beyond the budget amount. Canada has free universal health care for its citizens, so such organizations do not exist here.

Korman was Schulz's first husband, and the divorce had been very nasty. She still called him The Jerk. His current girlfriend was Suz Craig, who worked for an HMO. Craig didn't make it past Chapter 2, and Korman was the prime suspect.

The hockey party menu for McCracken included Mexican appetizers, Goalies Grilled Tuna, three salads, puck-shaped biscuits, potato rolls, and Stanley Cupcakes. The recipes were scattered throughout the novel but alas, nothing for the cupcakes.

Everyone dead or alive had severe psychological problems and hidden pasts. Dysfunctions were the normal condition in Aspen Meadow. Korman and Craig were both abusive to their staff. One of her employees snapped, killed her, and then tried to frame Korman for the murder. The only normal thing in the novel was the Grilled Chicken A L'orange.

*WINNER CAKE ALL* (2020) by Denise Swanson was the third installment of a series about Danielle Sloan of Normalton, Illinois. She had a fledgling catering business and was fortunate to land a contract for Yvette Joubert's engagement party. Presumably this was pre-pandemic, as the 2020 publication date suggests the book was written in 2019. The fiancé was Franklin Whittaker, the richest man in town.

Sloan was looking forward to not only a lucrative deal but also to establish herself as the caterer for the upper crust of Normalton. Alas, things got bad and things got worse, and if you read cozies, I guess you know the tune.

Joubert was a bridezilla who left a trail of enemies and ex-husbands behind her. Sloan had personal problems as well, such as her new boyfriend Spencer Drake, who had a very rough past. He was now residing in Normalton to hide from a motorbike gang he had seriously offended. The college campus had its share of protestors and rowdy students gearing up for the big football game.

The engagement party topped everything. A sudden storm trashed the tents and the party. During the chaos, someone took the opportunity to stab Joubert to death through her eye. Not only that, hundreds of steaks were lost from the barbecue, and let's not mention all the broken champagne bottles.

There was a plethora of suspects, basically anyone who walked by the steam tables. Whittaker owned a local baseball team, whose star batter had been canoodling with Joubert. Drake's past automatically put him under suspicion. The police were on the case and so was Sloan, in between worrying about food supplies. When you cater an event for 400 people, it is instinctive to fret about all that wasted food.

After shining the spotlight in succession on a variety of suspects, the case suddenly narrowed down to one of Joubert's past lovers. He blabbed all instead of keeping quiet. Whittaker recorded the murderer's confession on his smartphone, and the rest was details.

*SHUCKED APART* (2021) by Barbara Ross was about the Snowden Family Clambake Company of Busman's Harbor, Maine. The daughter of the house was Julie, who was the resident Jessica Fletcher since she lived in a Maine port.

A friend Andie Greatorex was assaulted. She was robbed of two buckets of oyster seed worth \$35,000. As this was the ninth novel in the series, Julie had

developed a reputation as a better investigator than the police, so Greatorrex asked her for help.

The oyster spat, as the teeny-tiny baby oysters are called, was for Greatorrex’s oyster beds. The theft was probably sabotage because they required specialized care. The culprit may have been a rival oyster farmer, a disgruntled ex-employee, or a summer resident who didn’t like oyster cages cluttering up the river view.

Greatorrex made it to Chapter 5 before someone got her with a shucking knife. Julie was hampered in her sleuthing because the clambake season was just beginning. She and her family were busy booking catered events, hiring summer staff, arranging the food, and a myriad of details.

Nonetheless Julie did her Fletchering and found the murderer, who objected to Greatorrex’s plan to expand her oyster farm along the river.

As an old cowhand from the Red Deer River, I’ve never cared for seafood. The recipes appendix had Oyster Stuffing, Baked Oysters, Sous Vide Spicy Tuna, Lobster Mashed Potatoes, and, the odd one out, Banana Bread.

**The Fruits Of Crime.**

FRUIT OF ALL EVIL (2011) by Paige Shelton was the third novel in a cozy series about Rebecca Robins of Manson, South Carolina. She earned her living selling jams and jellies at Bailey’s Farmers Market. The death toll there made Chicago look like Ten Sleep, Wyoming.

As this was only the third novel, the local citizens hadn’t yet made the connection that it wasn’t wise to become good friends with Robins. Consequently an adjacent vendor at the market, pie seller Linda McMahon asked Robins to be her matron of honour. Alas, tragedy struck. McMahon’s newly acquired mother-in-law Madeline Forsyth was murdered.

The victim was the local banker, whose hobbies included gardening and foreclosing mortgages. Motives would not be the critical point. The area was rural, so Robins did a lot of snooping around farms. She discovered the bank was having fraud problems, and there were some family disputes in the mix.

The culprits killed again and were trying to make Robins the next victim when they caught her Marpleing. She survived, of course. The murderers had lost their farm to the bank, and took remedial action.

The recipes appendix began with Banana Cream Pie, Lavender Cookies, and Peach Delight. For the main course, there was Quiche Jeanine. Since Robins was in the jams and jellies business, Strawberry Chocolate Preserves finished up the list.

CHERRY SCONES AND BROKEN BONES (2019) by Darci Hannah was the second in a series about Whitney Bloom. She managed the Cherry Orchard Inn and its restaurant in Cherry Cove, Wisconsin. The hotel was located on Cherry Bluff Lane and her cooking specialty was, well, you get the idea.

The murder victim, and there was one staying at the inn of course, was Silvia Lumiere, a famous portrait painter and a nasty guest. Lying next to the body was a cherry scone. That was enough evidence for the local Deppity Dawgs to prove Bloom did it, so once again she had to go Fletchering to prove her innocence. (Fletcher, not Marple, since the venue was a cove.)

For all her sins, Lumiere was a good artist, and that proved to be her death. She painted one customer as she saw her, an old woman with desperate eyes. The subject of the portrait objected strongly and killed the artist for being too truthful.

As one would expect and hope, the appendix contained a recipe for Cherry Scones. Also included was Cherry Chicken Salad, to be washed down with a Sour Cherry Martini.

**Casting Bread On The Waters.**

DEATH BY CHOCOLATE FROSTED DOUGHNUT (2020) by Sarah Graves was the third novel about Jacobia Tiptree of Eastport, Maine. She operated the Chocolate Moose bakery.

Since she lived in a Maine fishing village, Tiptree was the local Jessica Fletcher rather than a Miss Marple. There must be a dozen cozy series set in Maine harbours. I don’t know what it is about coastal Maine, but if you value your life, stay out of that state.



The annual Pirate Festival was underway. An obnoxious podcaster Henry Hadlyme was in town, a foodie who made fun of local restaurants and food shops wherever he went. Tiptree got into a public screaming match with him in front of her bakery. When his body was subsequently found in the basement of the bakery, she was in an awkward position.

She began Fletcherling in self defense. Hadlyme was one of those people where the surprise wasn't that he had been murdered but that he had lived as long as he did before a public-spirited citizen killed him. Tiptree worked her way along a trail of bad blood (figuratively) until crossing paths with the murderer, a woman betrayed.

Only one recipe in the book. No, not Chocolate Frosted Doughnuts but instead Double-Chocolate Ginger Cookies. Go figure.

DEATH GONE A-RYE (2021) by Winnie Archer was a bakery cozy set in Santa Sofia, California. Ivy Culpepper was the resident Miss Marple, who worked in the Yeast Of Eden bakery, owned by Olaya Solis. Their biggest seller was Vincent Van Dough focaccia, flatbread decorated with coloured vegetables to look like a Van Gogh painting.

The novel began at the wedding of Ivy's brother Billy, catered by Yeast Of Eden. The ceremony was barely over before the news came that school board president Nessa Renchrik had been murdered. Elsewhere, fortunately, in a school building. The bad news was that Culpepper's boyfriend Miquel Baptista had previously dated Renchrik and was a suspect.

Culpepper began busily Googling, the modern Miss Marple's way of snooping around the village. Notwithstanding that, there was still no substitute for stirring things up in person. Culpepper went about compiling a list of suspects and motives. As is standard in cozies, the deceased was a nasty person in both politics and private life.

Bakers work early morning hours and go to bed early, so Culpepper was somewhat hampered by the hours she had to keep. The school district's annual Spring Fling was nigh, and Yeast Of Eden had a booth. They did very well. The star bread triangles went fast, and there was a steady demand for hot cross buns and Van Dough focaccias.

There was a J'accuse! meeting but it went sideways when the revelation came that the murderer had acted in self-defense against an attack by Nessa. And so to the recipes appendix, which began with Van Dough Focaccia. That recipe took six pages. I'm sure it's delicious bread but I certainly don't have the time to prepare it. Following on were Sausage, Kale, and Potato Soup (delete the kale is my advice), Hot Cross Buns, and Rye Pumpernickel Rolls.

Joanne Fluke (pseudonym of Joanne Fischmann) has a lengthy series about Hannah Swensen of Lake Eden, Minnesota. She operated the Cookie Jar bakery. She had Marpled in so many murders that the long-time reader of this series will wonder why the local police didn't just hire her as an auxiliary constable.

PEACH COBBLER MURDER (2005) by Joanne Fluke began on Groundhog Day and not pleasantly. Hannah Swensen was feeling the competition from the newly-opened Magnolia Blossom Bakery, a cut-rate shop owned by sisters Shawna Lee and Vanessa Quinn. Business was down considerably at The Cookie Jar, which until now had a monopoly in baked goods.

Swensen passed the rival bakery late one night and saw the lights were still on. She found Shawna Lee's body, shot dead. Of course she did, for by this time in the series, Swensen could find a corpse faster than any bloodhound.

The Magnolia Blossom Bakery's specialty was Southern Peach Cobbler. Recipes were scattered throughout this book but that one wasn't in it. Strangely though, the first recipe in the book, after Chapter 4, was Minnesota Peach Cobbler. The treat was made with frozen peaches, so that explained that.

Notwithstanding the murder, Swensen spent most of her time investigating the Magnolia Blossom Bakery's source of supply. They were importing packaged foods, not fresh baked as at The Cookie Jar. Almost incidently Swensen solved the murder but she had her priorities, since she was losing money.

The denouement was complicated. The murderer shot Shawna Lee from a distance, thinking she was Vanessa. In turn, Vanessa was discovered to have murdered her husband back in Georgia. The novel wrapped up with Chocolate Overload Bars. Since everyone was busy with other matters during the novel, most of the recipes were grab-and-go cookies. Exceptions were Fake Orange Julius and the Shrimp Bisque, also faked with canned condensed soup.



COCONUT LAYER CAKE MURDER (2020) by Joanne Fluke was the 27<sup>th</sup> novel in this cozy series. Hannah Swensen’s sister Michelle’s boyfriend Detective Lonnie Murphy had been implicated in the murder of Darcy Hicks, a local woman who went through quite a few men friends. The police department had only two other detectives, Lonnie’s brother Rick, and Lonnie’s partner Mike Kingston.

The department had no choice but to ask Swensen to help investigate. Since Lonnie was her impending brother-in-law, that seemed a conflict of interest. However, the novel was only on page 44 (hardcover), so the plot had to move ahead somehow.

In between the baking was the investigation, or perhaps the other way round. The recipes were scattered among the chapters. Following Chapter 5 was the star of the show, Coconut Layer Cake. The recipe was six pages long, and the frostings took up another five pages. To be fair, the Georgia Peach Cake recipe was eight pages.

Back at the plot, the autopsy discovered Hicks was two months pregnant when she was murdered, and had been spatting with her boyfriend in public. There was another twist when tests revealed the father was actually a married man, whose wife was so angry she disposed of Hicks.

Swensen followed tradition and got herself trapped with the murderer. She escaped and lived to bake another tray of cookies.

You’ll gain weight just reading the index of recipes. To name only a few: Chocolate Peanut Butter Toffee, Corned Beef Pepper Jack Quiche, Chocolate Cashew Marshmallow Bars, Mandarin Orange Bundt Dessert, Cheezy Eggs Benedict, and a half-dozen cookie recipes.

**Doughnuts Or Not Doughnuts, That Is The Question.**

DEEP FRIED HOMICIDE (2014) by Jessica Beck was the thirteenth novel in a series about Suzanne Hart of April Springs, North Carolina. She operated the Donut Hearts bakery, in between Marpleing.

This time the crime was personal. Her police officer boyfriend Jake Bishop was wounded in the line of duty and came to recuperate with her. A gunman still on the loose was after Bishop for revenge, always good for alarums and diversions.

Hart and Bishop holed up in a cottage and awaited the inevitable, which of course they would survive, not the gunman.

Pause for digression. A common failing in a book or television series is to put the main protagonist in peril of his or her life. Supposedly this generates suspense, but since the audience knows the character will be back in the next installment for another thrilling adventure, the method doesn’t work.

If the thing is to be done, then one of the main supporting characters should be in peril, someone who could be killed without ending the series. Ideally the character should have been in several previous installments so as to ensure some emotional investment by the reader or viewer. Compare with the infamous Red Shirt characters in Star Trek, where some young yeoman or lieutenant appears for the first time in the cold teaser and is dead before the main titles roll.

Meanwhile, back at the doughnut shop, Hart was seldom around. A good way to run a business into the ground. Not too much in the line of doughnuts, not even in the recipe appendix, which had only a few humdrum basic doughnuts.

**Muffin But Murder Everywhere.**

Victoria Hamilton (pseudonym of Donna Lee Simpson) has an ongoing series, the Merry Muffin Mysteries. The protagonist was Merry Wynter of Autumn Vale, upstate New York.

She inherited a castle from her Uncle Melvyn. Her ancestors were lumber barons but the money ran out a couple of generations later. Ever since then, Wynter Castle had been a millstone around the descendants’ necks.

DEATH OF AN ENGLISH MUFFIN (2015) was an example of village economics. Merry’s muffin business wasn’t a big earner, since the villagers didn’t eat that many muffins a day. Merry had to take in boarders, a group of elderly women she called the League of Horrible Ladies. Their ringleader Cleta Sanson died in the bathroom under mysterious circumstances. She wasn’t mourned and there were plenty of suspects with motives.

In between room service and muffin baking, Merry interrogated villagers and snooped about her tenants’ rooms. There was an attempted murder to wake up the plot. In the denouement, it transpired that several people were grasping for an inheritance. One of them grasped too far and was caught.



The appendix had two recipes, for Chicken Spaghetti, and Bacon And Peanut Butter Muffins. Not in the same meal, I hope.

MUFFIN BUT TROUBLE (2019) carried on the saga at Wynter Castle. A religious cult group was stirring up trouble in the village. Little did they know never to mess with a Miss Marple.

Merry Wyntor now had a husband Virgil Grace, which I suppose made her Merry Grace. Not a nomen to engrave on a business card. The castle was being renovated for her latest project, a performing arts centre.

The woods around the castle had two houses and more to come, a suburban enclave called Wynter Woods that she was developing. Oh yes, and she still baked muffins, which by now were a sideline business.

Young women went missing, and some of them reappeared as corpses. The cult was in the centre of suspicion. Not surprising, as the murderer was a psychotic disciple. He got what was coming to him.

Again, just two recipes in the appendix. Cheese-Stuffed Bacon-Wrapped Chicken Thighs for the main course, and Mandarin Orange Cranberry Chocolate Chip Muffins for dessert. Don't forget your Lipitor.

DOUBLE OR MUFFIN (2021) began with Wynter Castle hosting a reality television show for aspiring opera singers. Merry Wyntor was a busy woman, dealing with demanding show judges, temperamental singers, and the production crew. A scandal-hunting reporter was attacked and left for dead, which triggered Merry into Marpleing.

There was never a dull moment at the castle. Everyone was nasty, had secrets to hide, or was acting out old family feuds. If not for the profits on the muffin bar and coffee devoured by the crew, Merry would have thrown them all out. The culprit proved to be someone who was not only a nasty father but was cruel to the castle's pet cat.

There were no recipes at the back of the book. This was possibly explained by a throwaway line about how Merry got her ingredients from Costco.

**Coffee To Die For.**

BREWED AWAKENING (2019) by Cleo Coyle was from a series about Clare Cosi, a New York City coffee house manager. This was an amnesia story where the protagonist woke up with no memory and had to reconstruct her missing time. I never liked such stories because they are used to set up false suspense that would not exist if told in a straightforward manner.

Cosi had been to a cake tasting and woke up erased. The police believed she had been part of a kidnapping by someone who wanted to adjust his family's line of inheritance to favour him. She and her boyfriend Matt tracked back to where she had been. Not too much time in her coffee shop.

They discovered that smells and tastes of food helped revive her memory, so she nibbled on a wide variety of baked goods and fast food. There was an hilarious sequence in Chapter 29 where a vital clue involved Cosi guessing the secret herbs and spices in Kentucky Fried Chicken. As she tasted the chicken slowly to savour the ingredients, there was a brief discussion of fried chicken and its modern history. Colonel Harlan Sanders would have loved this passage.

Refreshing her memory with calories continued. Since she was a cook, one method was to have her taste a wide variety of coffee shop cakes. Vanilla Bean, Deep Chocolate, Luscious Lemon, Bananas Foster, Red Velvet, Carrot, Grand Marnier, the list went on and on.

The perpetrator was desperate in his quest for the family inheritance. Naturally Cosi got herself trapped with him, and was saved in the last chapter.

From there to the recipes appendix. All the fattening pastries a coffee shop needs: Blueberry Shortbread, Strawberry Cream Cheese Scones, Pistachio Muffins, and many others. Speaking as a barbecue man and an old cowhand from the Red Deer River, I feel the Coffee Beef Stew should be condemned.

DEATH BY FRENCH ROAST (2020) by Alex Erickson (pseudonym of Eric S. Moore) was the eighth novel in a cozy series about Krissy Hancock of Pine Hills, Ohio. She operated a bookstore café Death By Coffee and Marpled on the side in her spare time.

Eleanor Winthrow died of old age. At the funeral, Hancock learned by chance that Eleanor's brother Wade Fink had been murdered three decades ago. The



case was still unsolved. To a Miss Marple, this was waving a red flag, so into the fray she charged.

Dredging up old memories around town was certain to ruffle feathers, but Hancock was heedless. Fink liked French roast coffee but other than that was a jerk with money. A fresh murder confirmed that Hancock was on the right track.

There were two killers, one past and one present. This time Hancock avoided the usual gunpoint confrontation in the denouement. Her car was bombed though, if that counted for anything. She didn't spend too much time selling coffee in this novel, nor were there any recipes.

FRESH BREWED MURDER (2021) by Emmeline Duncan was the first novel in a series about Sage Caplin of Portland, Oregon. Her business was Ground Rules, a food cart specializing in exotic coffees to go.

She had a rough beginning. There were protestors constantly in the street. Other food vendors were jealous because the landlord gave her a coveted location. Then she found a body in front of her cart, his throat slashed with her box cutter.

The murder cut down on her sales, pardon the pun, at least while police were interrogating her. The good news was that sales recovered once the body was hauled away. Caplin began Marpleing and set about stirring up trouble with protestors and Establishment alike. There were bombings, riots, vandalism, in short, the normal daily life of Portland.

The murderer was a bird lover who was upset that the ruckus on the streets was scaring the wildlife away. That actually made sense. If you're going to be green, then by golly be real green.

The recipes appendix was a variety of flavoured coffees and other drinks. The only solid food recipe was Oregon French Toast, which had hazelnuts. A factoid indicated that the state grows 99% of the American hazelnut crop.

**Cooking Classes.**

BASIL INSTINCT (2014) by Shelley Costa was from a series about Eve Angelotta, head chef at her family's restaurant Miracolo Italian in Philadelphia.

The restaurant was owned by her grandmother Maria Pia, aka Nonna (Italian for annoying grandmother, Eve's remark). Eve's cousin Landon was the sous chef.

Nonna had crossed paths with Belfiere, a secret society of female chefs who operated under the code of omerta. No, seriously they did. Eve had to worry about a different group of lowlifes, a cooking class of 17-year-old sociopaths. The Basic Cooking Skills course she taught was to students mostly on parole or wards of the state.

She hired a few of them out of the goodness of her heart. One of them repaid her by being found murdered in the restaurant. Eve and Landon didn't want the murder to ruin the day's takings, so they hid the body in a storeroom. Someone stole the corpse. Philadelphia must have a very serious crime problem indeed.

After some alarums, the body was recovered and the restaurant settled down to a semblance of order. Landon did most of the sleuthing, online that is. Eve stumbled from one fine mess to another, cooking and serving in between. The murderer was a complete outsider, come to settle a score from the past. He choked Eve half to death before the traditional last-second rescue.

Only one recipe at the back of the novel, for Gorgonzola And Spiced Walnuts In Port Wine Syrup. Three cups of wine needed, so don't eat and drive.

FATAL FRIED RICE (2021) by Vivien Chien was a novel in a cozy series about Lana Lee of Cleveland, Ohio, who managed her family's Chinese restaurant Ho Lee Noodle House. She wasn't a cook and could barely boil rice, an embarrassing situation for someone managing a restaurant. Lee therefore signed up for a culinary course taught by Margo Han.

Not for long though, as immediately after the first class had concluded, Han was found murdered. It almost goes without saying that Lee found the body, was implicated in the crime, and therefore went Marpleing. Her boyfriend was a police detective, which actually hindered more than helped since he had to stay away from the case.

She did have the help of the Mahjong Matrons, four elderly widows who were regulars at the Ho Lee restaurant. Five Miss Marples altogether. One shudders. The case progressed on all sides, with suspicion strewn like black pepper on rice.



Lee had to fit in her investigating in between her regular daily shift at the restaurant. Undaunted, she returned to her cooking course, which now had a replacement chef who managed to survive past his first class.

Han had been canoodling with the stepfather of one of the students, named Bridget. The latter didn't like him cheating on her mother. The stepfather, meanwhile, decided to keep the affair quiet with a knife. Bridget had her own plans, no less unlawful.

When Lee found out, she went along for a car ride with Bridget. This was what is known as being the idiot in an idiot plot. Since Lee was booked for the series, she survived the resulting bloodbath.

**We All Scream For Ice Cream.**

GAME OF CONES (2020) by Cynthia Baxter was basically a manor house mystery with ice cream. Each chapter was headed by a factoid about ice cream. The ice cream dipper, you may not be interested to learn, was invented in 1876. How people got along before that is a different mystery.

Kate McKay was the proprietor of Lickety Splits. The time was November, not a busy time for ice cream shops, and a persistent blizzard made matters worse. McKay received an offer from a Catskills hotel Mohawk Mountain Resort to put on a themed weekend about exotic ice creams and toppings. It was their slow season too.

McKay's boyfriend Jake Pratt accompanied her to the hotel. Just as they arrived, the storm blocked the access road. There were only two staff, six guests, and the formidable manager Merle Moody. "*I prefer to be addressed as Mrs Moody*" set the tone of her relations with McKay.

Moody then managed to insert an extended infodump on the history of the Dutch in the Catskill hills, regardless of whether or not McKay or the reader really wanted to know.

Nonetheless, the ice cream was front and centre, with flavours such as Cappuccino Crunch, Honey Lavender, Meyer Lemon, and the Elvis, a banana and peanut butter concoction. (Better than it sounded, we were told.) After delicious desserts like these, what better way to top off the evening than with a murder?

Wealthy executive Bethany La Montaigne was stabbed multiple times in the Maple Tree Room. The road was closed, so police couldn't get there until after the storm. The five remaining guests were the suspects. McKay was able to do her Marpleing without those annoying police getting in her way.

Mrs Moody had her priorities straight. She had the butler deal with the body, and insisted the ice cream workshops proceed as planned. That's one way to take your mind off the body lying on the rug.

The first session was on the history of ice cream, before and after which all the characters unloaded their back stories on McKay. There followed assorted catty remarks to help spread suspicion around. The session gave the author a chance to insert infodumps from her research into the history of ice cream, in the guise of McKay's demonstrations on preparing ice cream.

The murderer was a guest who was revealed to be a hitherto unknown half-sister of the deceased. She resented having been cut out of the family fortune and decided to alter the line of inheritance. Her confession was tinged by delusion, which a smart defense lawyer could use. Wrapping up the novel were recipes, beginning with Lemon Ice Cream. More exotic were Kulfi, an ice cream version from India, and Zabaglione, an Italian custard.

PINT OF NO RETURN (2021) by Dana Mentik was the first novel in a new cozy series about Trinidad Jones of Upper Sprocket, Oregon. She had just divorced Gabe Bigley, and she wasn't the only one, as he left a trail of ex-wives behind him.

Two of them, Juliette and Bonnie, also lived in the village, which made for awkward social encounters. Gabe was doing hard time for embezzlement, so in lieu of cash he gave each ex-wife one of his properties. Trinidad got Gabe's Hot Dogs, which she rebranded as an ice cream parlour called the Shimmy and Shake Shop. Juliette got the storage business, and Bonnie got the bed-and-breakfast.

The ice cream parlour's neighbour was the Popcorn Palace, owned by Kevin Heartly. He didn't survive past Chapter 2. Trinidad found his body stuffed inside an industrial-size popcorn kettle. The chief of police was Gabe's sister Cynthia, who arrested Juliette as the main suspect. Given her connections, she should have recused herself from the case.



The ice cream shop kept Trinidad busy as did her Marpleing. There was no lack of suspects since Heartly was mixed up in some nasty things. Infodumps about the ice cream business were sprinkled through the chapters like, uh, sprinkles on ice cream. (Note to self: Re-work that sentence somehow.)

The Key Lime Ice Cream, recipe at the back, played a key role throughout the novel. The murder was the result of Heartly owning a valuable antique he didn't know he had. The thief and murderer was caught and Juliette exonerated. More key lime anyone?

**Spicing Up Murder.**

THE SOLACE OF BAY LEAVES (2020) by Leslie Budewitz was an installment in a series about Pepper Reece, who operated the Spice Shop in Seattle when not Marpleing.

A close friend was shot in the head and left clinging to life in hospital. The ballistics on the bullet connected it to an earlier murder. The other victim was also a friend of Reece, so away she went snooping. (Seattle readers are warned not to make friends with any spice shop operator as that could shorten your lifespan.)

Reece was doing well as the Mistress of Spice (her phrase). Before she could go investigating, she was busy in the shop handling food tours. A group of ten tourists could easily buy several hundred dollars of spices, teas, and cookbooks. She was also busy with her staff preparing the sample of the day, stuffed mushrooms and roasted paprika cheese.

The police were very annoying, insisting that the cases were theirs to investigate, but we all know who would solve them. Nonetheless, Reece managed to work around those pesky uniforms. Her talent was sorting out the back stories, such as divorces, family feuds, and disreputable pasts.

Additionally, she took the time to spy on her competitors, not that Seattle had so many spice shops. Besides visiting their shops incognito, Reece bribed their staff to steal portions of the chefs' secret blends. I had to wonder if the police were working on the wrong case. After a few alarums to spice up the plot (pun intended), the murderer was snagged. The motives were family feuds mixed in with real estate deals.

And so to the recipes appendix, beginning with Lavender Bay Salt (mix bay leaves and lavender buds into kosher salt, not a complicated recipe), Then on to Almond Biscotti, Carrot Soup (with toasted spices and pecans), Tomato Basil Soup, Black Bean Chili, Rosemary Focaccia, Cold Sesame Noodles (I'll pass), and Broccoli Beef Stir Fry.

**Food Critics.**

DEATH OF A KITCHEN DIVA (2012) by Lee Hollis (pseudonym of siblings Rick Copp and Holly Simason) was set in Bar Harbor, Maine, where Hayley Powell was the food columnist for a local newspaper. Her columns were interspersed between the chapters of this novel, including recipes. The first recipe was for Lemon Drop Martini. Given her troubles, that was understandable.

In an ominous foreboding, a recipe for New England Clam Chowder preceded the murder of a rival food columnist Karen Appelbaum. The two women had a screaming match on a public sidewalk over who stole whose recipe. Later Powell went over to Appelbaum's house to apologize and try to reason with her. She found her rival murdered, face down in a bowl of clam chowder. See? I told you it was a foreboding.

Powell was hauled to jail by police but was soon released on bail. That gave her an opportunity to complain in her next column about the poor quality of jail food. Hilarious, especially since she ended the column with recipes for Orange Blossom Gin and Mango Orange Sorbet. Just the thing for every prisoner.

From there, Powell did her Fletchering. (Not Marpleing, since she lived in a Maine harbour.) Columns and recipes filled in the gaps along the way. The Sausage, Spinach, And Cheese Ravioli was particularly filling, wrapped up with Cherries Jubilee Pie for desserts.

Oh yes, the culprit. He and Appelbaum were disputing a family inheritance, so he eliminated one line of descent.

DEATH OF A COUNTRY FRIED REDNECK (2012) was the next installment in the chronicles of Hayley Powell. Country singer Wade Springer was in town and hired Powell as a personal chef. His tour bus was set afire, with roadie Mickey Pritchett barbecued inside, shot dead and one of Powell's chicken legs stuffed into his mouth.



No recipes specifically for chicken legs between the chapters, but the first one in the novel was for Country Fried Chicken. The bird, not the roadie. Way too many cocktail recipes but given the violence Powell endured in her investigation, she could be forgiven for needing them. Her Fletchering got her beaten up badly. The motive of the murderer was that Pritchett had stolen a song and claimed it was his.

The recipes were not for the carbohydrate-restricted reader, and if you are a teetotaler, there wasn't much else. The recipe for Pressure Cooker Country Chili was prefixed by a warning to use a new cooker or verify the existing one was in good shape. This was inspired by a very unfortunate experience Powell had in her kitchen, which resulted in a dent in the ceiling, plus chili covering every surface and human.

MURDER LO MEIN (2019) by Vivien Chien was a novel in a cozy series about Lana Lee of Cleveland, Ohio, who managed her family's Chinese restaurant Ho Lee Noodle House. The Lee family were determined to win the Cleveland Best Noodles Contest, which seemed to me like winning Best Reggae Band in Calgary. An accomplishment but not exactly the Olympics.

Someone was sending threats via fortune cookies, but more frightening to Lee was the grand opening of Shanghai Donuts across the street. She instinctively knew she would be their best customer, and she was already gaining too much weight from noodles.

The noodles contest was a barn-burner, if I may use an expression from my childhood on a cattle ranch. An unpopular food critic Norman Pan was found dead with his face in a plate of lo mein. That put a damper on the contest. The death was not the fault of the cook, as someone had strangled Pan as he sat at the table.

Lee leaped into the fray, after first making a pit stop at the doughnut store. Suspects included everyone who dealt with Pan, which meant establishing motive was a waste of time.

In the denouement, the killer had been paying off Pan for good reviews and to avoid bad ones. Pan got greedy and wanted more money. Blackmailers have shortened life spans. No recipes appendix, which was just as well since they probably would have been doughnuts instead of noodles.

THE KEY LIME CRIME (2020) by Lucy Burdette (pseudonym of Roberta Isleib) was part of a series set in Key West, Florida, where Hayley Snow was a food critic and resident Jessica Fletcher, since the place was a harbour.

The height of the Christmas season meant the islands were swamped with tourists. Local millionaire David Sloan loved key lime pie and sponsored a bake-off for the best such pie. The competition was fierce among chefs.

Snow's husband was police detective Nathan Bransford, whose mother was coming to visit. No matter how tropical the island was, the air would be frosty when she arrived to meet the woman who stole her precious baby boy away from her. She was Mom to Nathan, Mrs Bransford to Snow.

The real excitement began at the first session of the pie contest when Sloan disqualified Claudette Parker, of the Au Citron Vert bakery, for breaking the rules about preparing pies. Her response was to grab a competitor's pie and slap it into his face. Well, she had nothing to lose.

Except her life. Snow took her mother-in-law on a Christmas lights tour. They passed Parker's house and found her corpse. Snow had something to write about for her magazine besides key lime pies. Also something to investigate. There were plenty of suspects, beginning with Sloan and the competing bakeries on the island.

Snow was kidnapped near the end of the novel, as Miss Marples so often are. The murderer thought she was getting too close to the truth, which was a hitherto unmentioned item in Parker's past for which he wanted her silence. Snow was rescued in the nick of time and some more info was dumped. After all the explanations, dinner was served. Chocolate cake for dessert. Everyone was sick of key lime pies and I don't blame them.

The recipes section began with Cheese Puffs With Fig Jam, Crumb Cake, and Chai Snickerdoodles. The author included her recipe for Chicken And Stuffing Casseroles For 160 People, she having once cooked for a church picnic. Start with 40 pounds of chicken, 16 pounds stuffing, 16 pounds condensed cream of chicken soup, 16 pounds condensed cream of celery, 40 cups of chicken broth, and 24 cans of evaporated milk.

For a light snack after that meal, there followed Key Lime Parfait, to be washed down with Key Lime Martinis. I assume the latter wasn't for the church picnic.



**Little Tea Shop Of Horrors.**

NO GOOD TEA GOES UNPUNISHED (2019) by Bree Baker was from the Seaside Café Mysteries series about Everly Swan of Charm, North Carolina. She operated the Sun, Sand, and Tea shop on the beachfront when not Fletcher-ing. The cozy opened with the wedding of her childhood friend Judy to wealthy young man Craig Miller.

Swan catered the wedding and picked up some extra dollars with her bed-and-breakfast. The food was excellent but the wedding reception ended with Miller floating in the surf with a fatal knife wound. Swan’s investigation was slowed by the week-long Summer Splash festival which began on the following Sunday. She had a booth, plus the tea shop was busy with tourists.

Murder notwithstanding, the tea shop menu still had to be planned. The list included Pineapple Chicken Wraps, Spicy Shrimp And Avocado Tacos, Cherry Blueberry Goat Cheese Salad, and, if you still had room, Chocolate Covered Strawberries, Blueberry Cheesecake, and Red Velvet Ice Cream Sandwiches.

Someone left threats for Swan. Her snooping was hampered by the police, who insisted they had jurisdiction. The death toll steadily mounted. In the denouement, the murderer was a woman scorned by Miller.

The recipes appendix included Blushing Bride Iced Tea, made with hibiscus leaves, cinnamon sticks, sugar, and garnished by lime wedges. Following on was the aforementioned Pineapple Chicken Wrap, and if still thirsty, Jasmine Sweet Tea.

A CALL FOR KELP (2020) kept Everly Swan busy as a bee in her tea shop. Her grandaunts were making a documentary about beekeeping and had invited faded actress Mitzi Calgon to help. She didn’t make it past Chapter 1.

Calgon’s death brought a swarm of reporters and fans to the beaches of Charm. The tea shop did booming business, proving the old adage that it’s an ill wind that blows no good. Swan had her share of alarums and threats as one might expect. She commented: “*Maybe I was a trouble magnet.*” (Chapter 22).

She was a thoroughly modern Fletcher, frequently using her smartphone and organizing her data on a laptop spreadsheet. The murderer was an obsessive fan who didn’t like Calgon lowering herself to make a documentary about bees.

The case ended happily with Swan and her boyfriend eating lemon cake on the beach. Oddly, that wasn’t in the recipes appendix. Instead there was Rum Cake, Mango Shrimp Rolls, and Ginger Pear Iced Tea.

TEA AND TREACHERY (2020) by Vicki Delaney was part of a cozy series about Lily Roberts of Cape Cod, Massachusetts. She operated the Tea By The Sea restaurant, while next door her grandmother Rose had a bed-and-breakfast. Both their businesses were threatened by Jack Ford, a real estate developer whose proposed golf resort nearby would disrupt them.

He was the murder victim, to no one’s surprise, and left behind a plethora of suspects. They included Rose, whom he was suing for slander, an ex-mistress, a trophy wife, and disreputable business partners.

Lily sprang into action to protect her grandmother, and began Fletcher-ing about town. She still had to do the baking for her tea shop, for raisin scones and coconut cupcakes don’t materialize out of thin air.

Alas, during the final confrontation with the killer, she wasn’t able to take the scones out of the oven, in consequence of which they were burned. The recipes appendix had two items. Go ahead, guess what they were.

**Dine-In Restaurants.**

MURDER FROM SCRATCH (2019) by Leslie Karst was the fourth novel in a cozy series about Sally Solari of Santa Cruz, California. She was half-owner of the Gauguin restaurant, along with her head chef Javier.

Her blind cousin Evelyn’s mother Jackie had been murdered. They were also in the restaurant business. Evelyn was a good cook. Her kitchen operated under the stipulation that all the containers, cutlery, and food had to be kept in the same spots so that Evelyn could find them.

The two cousins began sleuthing through a tangle of restaurants and other commercial kitchens. There were accusations of sharp business practice and, even worse, stealing recipes. Chefs get that way sometimes.

For once, there was a note about the legal consequences of Marple-ing (Chapter 24). The author Karst was a lawyer in her day job. She emphasized that snooping about like all those Marples and Fletchers would ruin the case in



court. Criminal trespass, a favourite activity of amateur sleuths, makes any evidence gathered inadmissible.

In the denouement, the killer had struck at Jackie because she had proof he was fiddling the cash receipts at a restaurant. Solari had the traditional trapped-with-the-murderer struggle to the death. She got him in the eye with a fork. The recipes appendix included Roasted Leeks (with walnut oil, lemon, and thyme), Singapore Noodles (with roast pork and broccolini), Spot Prawns (with citrus and harissa), and two types of pasta.

MACARONI AND FREEZE (2015) by Christine Wenger was the fourth novel in a cozy series about Trixie Matkowski, owner of the Silver Bullet Diner in Sandy Harbor, upstate New York. She was competing in a mac-and cheese bake-off to raise funds for a new library, the old one having collapsed under a heavy snowfall.

The judge was Priscilla Finch-Smythe, former resident and now a celebrity chef on cable television. First prize was an appearance on her cooking show, plus \$2,000 cash. She did not live long after the winner was announced. Matkowski went sleuthing and soon found suspects. The police too, but we know who would solve the crime first.

Subplots included accusations that Finch-Smythe had plagiarized her last cookbook, and a greedy heir who was in serious debt to a bookie and needed cash in a hurry. Finch-Smythe's assistant Jill Marley had been cutting corners in the show's operation. Enough to keep any Jessica Fletcher busy.

Matkowski tangled with the killer, Marley having much to hide and desperate. Almost frozen to death in a snowbank, Matkowski made it to the denouement and recipes appendix.

The season being winter, starting off the recipes was Christmas Eve Punch. This was a mixture of Manischewitz wine, strong tea, pineapple juice, orange juice, lemonade, and ginger ale. One gets the impression that the author was just cleaning out her refrigerator and poured all the half-empty bottles into a large bowl to see what would happen.

The Pink Champagne Punch you can guess. Use both punches to wash down the Cheese-Olive Puffs, Coffee Cake, White Bean Salad, Split Pea Soup, and Polish Potato Pancakes.

For the stomach fillers, there were Luchen Kugel ("*sort of a Jewish mac and cheese*", wrote Wenger), Juanita's Baked Macaroni And Cheese (with jalapenos and chili peppers mixed in), and Trixie's Macaroni And Cheese (with kielbasa and salsa).

Sarah Zettel has a series called the Vampire Chef Mysteries, set in New York City. Siblings Charlotte and Chet Caine operated the Nightlife restaurant, open only after the sun went down. They were vampires, so I hesitated to include these novels as cozies. However, everything else was in the normal food cozy style, so who am I to be prejudiced against the haute noir.

A TASTE OF THE NIGHTLIFE (2011) began the series. The Caines served the people of the night, one of whom had no manners. When the customer turned up dead with fang marks in his neck, Charlotte had to go Marpleing to clear Chet's name and get the restaurant re-opened. They never got this sort of trouble in Cabot Cove. To worsen matters, that was the night when eminent food critic Anatole Sevarin came by to do a review.

Charlotte uncovered assorted subplots behind the scenes. Blood runners were involved, and possibly the restaurant was being used as a front for blood dealers. The events were vicious, bearing in mind that the undead don't fear dying in knife fights. Charlotte was cornered by the killer and threw a saucepan of flambé into her face to slow her down.

The murderer was an underworld witch hoping to expand her empire. Sevarin was a good fella though, and praised the restaurant in his review. No recipes appendix, possibly because most of them would involve fresh human blood.

LET THEM EAT STAKE (2012) was the sequel. Charlotte Caine was catering the wedding of a vampire and a wealthy witch. Many people of the night frowned on such a mixed marriage. Prejudice wasn't just something for the day people.

The chef who was originally to have catered the wedding was Oscar Simmons. He backed out at the last minute, and Charlotte grabbed the contract. The money was good and the publicity would be a big boost for the restaurant. Simmons was subsequently murdered in his own restaurant. Members of the groom's family began disappearing. Not long after, the police arrived and made enquiries.



Charlotte was, needless to say, worried about the investigation getting too close to her, and started sleuthing. There was a complicated mess, as the magicals in the bride’s family were working at cross-purposes to each other in addition to dealing with vampiric interlopers.

The menu planning went ahead, for the money was green in every culture. The witches loved the raspberry cake, and the vampires had no problems with chocolate. Charlotte promised a nightblood-friendly champagne cocktail. For dessert, tequila, rum, or brandy milkshakes.

The denouement was a confrontation with squirt guns. Don’t laugh. If you’ve got a potion to kill vampires, load it into a squirt gun and spray them from a safe distance.

CANDY SLAIN MURDER (2020) by Maddie Day (pseudonym of Edith Maxwell) was the eighth novel in a cozy series about Robbie Jordan of South Lick, Indiana. She operated Pans ‘N Pancakes, whose menu items can be guessed.

The month was December and as the holidays neared, some weird events transpired. Jordan’s shop assistant had to deal with a stranger who walked in to the café and told her that he was her previously-unknown half-brother. The other major subplot was a house fire which revealed a human skeleton in the attic.

Jordan was busy though, it being the Christmas season. The breakfast special was spinach and red pepper egg bake. You know, red and green for the festive season. The colour scheme was carried forward to the lunch menu, quesadillas with green chili and salsa.

In a café with customers coming and going, Jordan could do a lot of her investigating by just gossiping with them. The death toll commenced, at other locations fortunately. The Bible and Brew event in the café went well, and yes, that’s what it was. BYOB meant bring your own Bible, sit back, and relax reading it while slurping a Budweiser.

The skeleton was the homeowner’s wife and the fresh murder victim was her sister. Rather obvious, and it explained how Jordan was able to deduce in the Nero Wolfe style without leaving her restaurant. The recipes appendix had some red and green foods, and Teriyaki Chicken Wings for the secular eaters.

**CURRENT EVENTS: PART 23**

by Dale Speirs

[Parts 1 to 22 appeared in OPUNTIA’s #474, 475, 479, 480, 483, 484, and 488 to 503.]

**Plagues Of The Past.**

Project Gutenberg ([www.gutenberg.org](http://www.gutenberg.org)) recently released a free pdf of the epic poem THE PLAGUE OF ATHENS (1665) by Thomas Sprat. The subtitle was *Which happened in the second year of the Peloponnesian war, first described in Greek by Thucydes; then in Latin by Lucretius. Now attempted in English.*

Since 1665 was a plague year in England, the book was undoubtedly issued to take advantage of current events, just as we today would be interested in the subject as we would not have been in 2019.

The book began with a text summary about the plague, the opening lines being as follow: *In the very beginning of summer, the Peloponnesians, and their confederates, with two-thirds of their forces, as before invaded Attica, under the conduct of Archidamus, the son of Zeuxidamas, King of Lacedæmon, and after they had encamped themselves, wasted the country about them.*

*They had not been many days in Attica, when the Plague first began amongst the Athenians, said also to have seized formerly on divers other parts, as about Lemnos, and elsewhere; but so great a Plague, and Mortality of Men, was never remembered to have happened in any place before.*

There followed a lengthy and rather gruesome description of the disease’s effect on humans, which took a week or more to kill the victims. The disease worked its way down the body with convulsions, severe coughing, vomiting, diarrhea, and general weakness.

The plague was a case of what does not kill you makes you stronger. The populace soon noted that those who survived the plague were not afflicted a second time, an early recognition of acquired immunity.

Another consequence was breakdown of law and order. *Neither the fear of the Gods, nor Laws of men, awed any man.* Every one for themselves, and the devil took the hindmost. As the plague spread, so did selfishness and disregard for others. Our modern world was no better behaved when COVID-19 struck.



From there to the poem itself, whose opening lines were:  
*Unhappy Man! by Nature made to sway,  
And yet is every Creature's prey,  
Destroyed by those that should his power obey.  
Of the whole World we call Mankind the Lords,  
Flattering our selves with mighty words;  
Of all things we the Monarchs are.*

I was reminded of Arundhati Roy's famous comment at the beginning of the current pandemic: *Whatever it is, coronavirus has made the mighty kneel and brought the world to a halt like nothing else could.*

Even in ancient times, humans knew that plagues were associated with cities:  
*The throng, the tumult, and the town;  
What strange, unheard-of Conqueror is this,  
Which by the forces that resist it doth increase!*

Physicians, such as they were back then, were among the first to die since they were called in to the presence of the infected. That factor brought medicine into disrepute and scorn. There were no anti-vaxxers then, but one can understand their psychology.

*Physicians now could nought prevail,  
They the first spoils to the proud victor fall,  
Nor would the Plague their knowledge trust,  
But feared their skill, and therefore slew them first:*

*No aid of herbs, or juices power,  
None of Apollo's art could cure,  
But helped the Plague the speedier to devour.  
Physick itself was a disease,  
Physick the fatal tortures did increase,  
Prescriptions did the pains renew.*

Just as we had the CERB cheaters and anti-maskers, so it was that the people of Athens abandoned the rules of civilization:  
*Virtue was now esteemed an empty name,  
And honesty the foolish voice of fame.*

**Philately.**



I am still accumulating stamps about COVID-19. Images are not to actual size or to the same scale.







Sender, R., et al (2021) **The total number and mass of SARS-CoV-2 virions.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2024815118 (available as a free pdf)

Authors' abstract: *Quantitatively describing the time course of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection within an infected individual is important for understanding the current global pandemic and possible ways to combat it.*

*Here we integrate the best current knowledge about the typical viral load of SARS-CoV-2 in bodily fluids and host tissues to estimate the total number and mass of SARS-CoV-2 virions in an infected person.*

*We estimate that each infected person carries  $10^9$  to  $10^{11}$  virions during peak infection, with a total mass in the range of  $1\ \mu\text{g}$  to  $100\ \mu\text{g}$ , which curiously implies that all SARS-CoV-2 virions currently circulating within human hosts have a collective mass of only 0.1 kg to 10 kg.*

*We combine our estimates with the available literature on host immune response and viral mutation rates to demonstrate how antibodies markedly outnumber the spike proteins, and the genetic diversity of virions in an infected host covers all possible single nucleotide substitutions.*

*Knowing the absolute numbers of virions in an infection promotes better understanding of disease dynamics and response of the immune system. Although each infected person carries an estimated 1 billion to 100 billion virions during peak infection, their total mass is no more than 0.1 mg.*

Cheng, Y., et al (2021) **Face masks effectively limit the probability of SARS-CoV-2 transmission.** SCIENCE 372:1439-1443 (available as a free pdf)

Authors' abstract: *Airborne transmission by droplets and aerosols is important for the spread of viruses. Face masks are a well-established preventive measure, but their effectiveness for mitigating severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission is still under debate.*

*We show that variations in mask efficacy can be explained by different regimes of virus abundance and are related to population average infection probability*

## Seen In The COVID-19 Literature.

As of August 14, Canada had 1,450,585 cases of COVID-19 with 26,700 deaths. There were 51,274,730 vaccinations. Since Canada's population is about 38,000,000, this indicates that many Canadians, myself included, have received a booster shot. My first jab was Pfizer and the second was Moderna.



and reproduction number. For SARS-CoV-2, the viral load of infectious individuals can vary by orders of magnitude.

*We find that most environments and contacts are under conditions of low virus abundance (virus-limited), where surgical masks are effective at preventing virus spread. More-advanced masks and other protective equipment are required in potentially virus-rich indoor environments, including medical centers and hospitals. Masks are particularly effective in combination with other preventive measures like ventilation and distancing.*

Hodcroft, E.B., et al (2021) **Spread of a SARS-CoV-2 variant through Europe in the summer of 2020.** NATURE 595:doi.org/10.1038/s41586-021-03677-y (available as a free pdf)

Authors' abstract: *Following its emergence in late 2019, the spread of SARS-CoV-2 has been tracked by phylogenetic analysis of viral genome sequences in unprecedented detail. Although the virus spread globally in early 2020 before borders closed, intercontinental travel has since been greatly reduced. However, travel within Europe resumed in the summer of 2020.*

*Here we report on a SARS-CoV-2 variant, 20E (EU1), that was identified in Spain in early summer 2020 and subsequently spread across Europe. We find no evidence that this variant has increased transmissibility, but instead demonstrate how rising incidence in Spain, resumption of travel, and lack of effective screening and containment may explain the variant's success.*

*Despite travel restrictions, we estimate that 20E (EU1) was introduced hundreds of times to European countries by summertime travellers, which is likely to have undermined local efforts to minimize infection with SARS-CoV-2.*

*Our results illustrate how a variant can rapidly become dominant even in the absence of a substantial transmission advantage in favourable epidemiological settings. Genomic surveillance is critical for understanding how travel can affect transmission of SARS-CoV-2, and thus for informing future containment strategies as travel resumes.*

*The pandemic of COVID-19, which is caused by SARS-CoV-2, is the first pandemic for which the spread of a viral pathogen has been globally tracked in near real-time using phylogenetic analysis of viral genome sequences.*

*SARS-CoV-2 genomes continue to be generated at a rate far greater than for any other pathogen, and more than 950,000 full genomes were available in the Global Initiative on Sharing All Influenza Data (GISAID) database as of April 2021.*

*In addition to tracking viral spread, these sequences have been used to monitor mutations that might change the transmission, pathogenesis, or antigenic properties of the virus. One mutation in particular, D614G in the spike protein (Nextstrain clade 20A and its descendants), seeded large outbreaks in Europe in early 2020 and subsequently dominated outbreaks in the Americas, thereby largely replacing previously circulating lineages.*

*This rapid rise led to the suggestion that this variant is more transmissible, which has since been corroborated by phylogenetic and experimental evidence. Subsequently, three variants of concern, which have increased transmissibility and/or can partially escape neutralization, were identified at the end of 2020.*

*Following the global dissemination of SARS-CoV-2 in early 2020, intercontinental travel dropped markedly. Within Europe, however, travel (particularly holiday travel) resumed in the summer. Here we report on SARS-CoV-2 variant 20E (EU1), with an A222V mutation in the spike protein, which first rose in frequency in Spain in early summer 2020 and subsequently spread to multiple locations in Europe, rising in frequency in parallel.*

*This variant and a second variant (20A.EU2, with an S477N mutation in the spike protein) accounted for the majority of sequences in Europe in the autumn of 2020.*

Persson, J., et al (2021) **Monitoring the COVID-19 epidemic with nationwide telecommunication data.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2100664118 (available as a free pdf)

Authors' abstract: *We use mobility data derived from telecommunication metadata as a proxy for social distancing, and, based on this, we demonstrate how the effect of policy measures can be monitored in a nationwide setting. Compared to the status quo, this provides a clear benefit: Monitoring policy measures through case counts has a substantial time lag, whereas our approach allows for monitoring in near real time.*

*In response to the novel coronavirus disease (COVID-19), governments have introduced severe policy measures with substantial effects on human behavior. Here, we perform a large-scale, spatiotemporal analysis of human mobility during the COVID-19 epidemic.*

*We derive human mobility from anonymized, aggregated telecommunication data in a nationwide setting (Switzerland; 10 February to 26 April 2020), consisting of 1.5 billion trips. In comparison to the same time period from 2019, human movement in Switzerland dropped by 49.1%.*

*The strongest reduction is linked to bans on gatherings of more than five people, which are estimated to have decreased mobility by 24.9%, followed by venue closures (stores, restaurants, and bars) and school closures.*

*As such, human mobility at a given day predicts reported cases 7 to 13 days ahead. A 1% reduction in human mobility predicts a 0.88 to 1.11% reduction in daily reported COVID-19 cases.*

*When managing epidemics, monitoring human mobility via telecommunication data can support public decision makers in two ways. First, it helps in assessing policy impact; second, it provides a scalable tool for near real-time epidemic surveillance, thereby enabling evidence-based policies.*

**Rudiger, S., et al (2021) Predicting the SARS-CoV-2 effective reproduction number using bulk contact data from mobile phones. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2026731118 (available as a free pdf)**

*Authors' abstract: Numerous COVID-19 studies used mobile phone data but with limited power in accounting for infection numbers. We have evaluated deidentified Global Positioning System (GPS) data from over 1 million devices in Germany and inferred contacts from coproximity of devices.*

*Through calculating the contact graphs, we derived a contact index (CX) that exhibits a high correlation with the incidence-based reproduction number R so that changes in CX precede those in R by more than 2 weeks. CX thus is an early indicator for outbreaks and can be used to guide social-distancing policies.*

*Over the last months, cases of SARS-CoV-2 surged repeatedly in many countries but could often be controlled with nonpharmaceutical interventions including social distancing.*

*We analyzed deidentified Global Positioning System (GPS) tracking data from 1.15 to 1.4 million cell phones in Germany per day between March and November 2020 to identify encounters between individuals and statistically evaluate contact behavior.*

*Using graph sampling theory, we estimated the contact index (CX), a metric for number and heterogeneity of contacts. We found that CX, and not the total number of contacts, is an accurate predictor for the effective reproduction number R derived from case numbers.*

*A high correlation between CX and R recorded more than 2 weeks later allows assessment of social behavior well before changes in case numbers become detectable. By construction, the CX quantifies the role of superspreading and permits assigning risks to specific contact behavior.*

*We provide a critical CX value beyond which R is expected to rise above 1 and propose to use that value to leverage the social-distancing interventions for the coming months.*

**Oh, J., et al (2021) Mobility restrictions were associated with reductions in COVID-19 incidence early in the pandemic: evidence from a real-time evaluation in 34 countries. SCIENTIFIC REPORTS 11:doi.org/10.1038/s41598-021-92766-z (available as a free pdf)**

*Authors' abstract: Most countries have implemented restrictions on mobility to prevent the spread of Coronavirus disease-19 (COVID-19), entailing considerable societal costs but, at least initially, based on limited evidence of effectiveness. We asked whether mobility restrictions were associated with changes in the occurrence of COVID-19 in 34 OECD countries plus Singapore and Taiwan.*

*Our data sources were the Google Global Mobility Data Source, which reports different types of mobility, and COVID-19 cases retrieved from the dataset curated by Our World in Data.*



*Beginning at each country's 100th case, and incorporating a 14-day lag to account for the delay between exposure and illness, we examined the association between changes in mobility (with January 3 to February 6, 2020, as baseline) and the ratio of the number of newly confirmed cases on a given day to the total number of cases over the past 14 days from the index day (the potentially infective 'pool' in that population), per million population, using LOESS regression and logit regression.*

*In two-thirds of examined countries, reductions of up to 40% in commuting mobility (to workplaces, transit stations, retailers, and recreation) were associated with decreased cases, especially early in the pandemic.*

*Once both mobility and incidence had been brought down, further restrictions provided little additional benefit. These findings point to the importance of acting early and decisively in a pandemic.*

Jones, T.C., et al (2021) **Estimating infectiousness throughout SARS-CoV-2 infection course.** SCIENCE 373:180 (available as a free pdf)

*Authors' extracts: To increase our understanding of the infectiousness of SARS-CoV-2, especially in presymptomatic, asymptomatic, and mildly symptomatic (PAMS) cases and those infected with the B.1.1.7 variant, we analyzed viral load data from 25,381 German cases, including 9,519 hospitalized patients, 6,110 PAMS cases from walk-in test centers, 1,533 B.1.1.7 variant infections, and the viral load time series of 4,434 (mainly hospitalized) patients.*

*PAMS subjects who test positive at walk-in test centers can be expected to be approximately as infectious as hospitalized patients. The level of expected infectious viral shedding of PAMS people is of high importance because they are circulating in the community at the time of detection of infection.*

*Although viral load and cell culture infectivity cannot be translated directly to transmission probability, it is likely that the rapid spread of the B.1.1.7 variant is partly attributable to higher viral load in these cases.*

Wang, Z., et al (2021) **Naturally enhanced neutralizing breadth against SARS-CoV-2 one year after infection.** NATURE 595:doi.org/10.1038/s41586-021-03696-9 (available as a free pdf)

*Authors' abstract: More than one year after its inception, the coronavirus disease 2019 (COVID-19) pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) remains difficult to control despite the availability of several working vaccines. Progress in controlling the pandemic is slowed by the emergence of variants that appear to be more transmissible and more resistant to antibodies.*

*Here we report on a cohort of 63 individuals who have recovered from COVID-19 assessed at 1.3, 6.2 and 12 months after SARS-CoV-2 infection, 41% of whom also received mRNA vaccines.*

*In the absence of vaccination, antibody reactivity to the receptor binding domain (RBD) of SARS-CoV-2, neutralizing activity and the number of RBD-specific memory B cells remain relatively stable between 6 and 12 months after infection.*

*Vaccination increases all components of the humoral response and, as expected, results in serum neutralizing activities against variants of concern similar to or greater than the neutralizing activity against the original Wuhan Hu-1 strain achieved by vaccination of naive individuals.*

*The mechanism underlying these broad-based responses involves ongoing antibody somatic mutation, memory B cell clonal turnover and development of monoclonal antibodies that are exceptionally resistant to SARS-CoV-2 RBD mutations, including those found in the variants of concern.*

*In addition, B cell clones expressing broad and potent antibodies are selectively retained in the repertoire over time and expand markedly after vaccination.*

*The data suggest that immunity in convalescent individuals will be very long lasting and that convalescent individuals who receive available mRNA vaccines will produce antibodies and memory B cells that should be protective against circulating SARS-CoV-2 variants.*

Higgs, Nico, and Ian Stavness (2021) **Bayesian analysis of home advantage in North American professional sports before and during COVID-19.** SCIENTIFIC REPORTS 11:doi.org/10.1038/s41598-021-93533-w (available as a free pdf)

Authors' abstract: *Home advantage in professional sports is a widely accepted phenomenon despite the lack of any controlled experiments at the professional level. The return to play of professional sports during the COVID-19 pandemic presents a unique opportunity to analyze the hypothesized effect of home advantage in neutral settings.*

*While recent work has examined the effect of COVID-19 restrictions on home advantage in European football, comparatively few studies have examined the effect of restrictions in the North American professional sports leagues. In this work, we infer the effect of and changes in home advantage prior to and during COVID-19 in the professional North American leagues for hockey, basketball, baseball, and American football.*

*We propose a Bayesian multi-level regression model that infers the effect of home advantage while accounting for relative team strengths. We also demonstrate that the Negative Binomial distribution is the most appropriate likelihood to use in modelling North American sports leagues as they are prone to overdispersion in their points scored.*

*Our model gives strong evidence that home advantage was negatively impacted in the NHL and NBA during their strongly restricted COVID-19 playoffs, while the MLB and NFL showed little to no change during their weakly restricted COVID-19 seasons.*

de Lima, L.F., et al (2021) **Minute-scale detection of SARS-CoV-2 using a low-cost biosensor composed of pencil graphite electrodes.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2106724118 (available as a free pdf)

Authors' abstract: *COVID-19 has led to over 3.47 million deaths worldwide and continues to devastate primarily middle- and low-income countries. High-frequency testing has been proposed as a potential solution to prevent outbreaks. However, current tests are not sufficiently low-cost, rapid, or scalable to enable broad COVID-19 testing.*

*Here, we describe LEAD (Low-cost Electrochemical Advanced Diagnostic), a diagnostic test that detects severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) within 6.5 minutes and costs \$1.50 per unit to produce using easily accessible and commercially available materials.*

*LEAD is highly sensitive toward SARS-CoV-2 spike protein (limit of detection = 229 fg·mL<sup>-1</sup>) and displays an excellent performance profile using clinical saliva (100.0% sensitivity, 100.0% specificity, and 100.0% accuracy) and nasopharyngeal/oropharyngeal (88.7% sensitivity, 86.0% specificity, and 87.4% accuracy) samples.*

*No cross-reactivity was detected with other coronavirus or influenza strains. Importantly, LEAD also successfully diagnosed the highly contagious SARS-CoV-2 B.1.1.7 UK variant. The device presents high reproducibility under all conditions tested and preserves its original sensitivity for 5 days when stored at 4° C in phosphate-buffered saline.*

Wang, U., et al (2021) **Ultrapotent antibodies against diverse and highly transmissible SARS-CoV-2 variants.** SCIENCE 373:doi.org/10.1126/science.abh1766 (available as a free pdf)

Authors' abstract: *The emergence of highly transmissible SARS-CoV-2 variants of concern (VOCs) that are resistant to therapeutic antibodies highlights the need for continuing discovery of broadly reactive antibodies.*

*We identified four receptor binding domain-targeting antibodies from three early-outbreak convalescent donors with potent neutralizing activity against 23 variants, including the B.1.1.7, B.1.351, P.1, B.1.429, B.1.526, and B.1.617 VOCs.*

*Two antibodies are ultrapotent, with subnanomolar neutralization titers [half maximal inhibitory concentration (IC<sub>50</sub>) 0.3 to 11.1 nanograms per milliliter; IC<sub>80</sub> 1.5 to 34.5 nanograms per milliliter].*

*We define the structural and functional determinants of binding for all four VOC-targeting antibodies and show that combinations of two antibodies decrease the in vitro generation of escape mutants, suggesting their potential in mitigating resistance development.*



LETTERS TO THE EDITOR

[Editor’s remarks in square brackets. Please include your name and town when sending a comment. Email to opuntia57@hotmail.com]

FROM: Lloyd Penney  
Etobicoke, Ontario

2021-08-09

OPUNTIA #504: Here, we may be hitting the peak of temperatures for this year. Current temperature as I type is 31°C, 41°C with the humidity. Our air conditioner is working overtime, hurray for that. I’ve experienced temperatures near the 40°s, but can barely imagine what it was like in British Columbia once it hit 45°C.

[I’ve never had experience at or above 40°C. Alberta is a dry country so humidity is not a factor, but that first heat wave we had was hot enough. There was then a gap with a bit of rain, and we are now in the second heat wave. However, it isn’t as bad, mostly in the high 20s and low 30s, because the forest fire smoke from British Columbia has drifted into Alberta. The constant haze reflects sunlight and keeps us cooler.]

I think my favourite weird western television show was THE WILD, WILD WEST. Those episodes were a lot of fun, and were western steampunk before the term had been invented. I’d like to get the full run of TWWW on DVD, and enjoy them again.

My previous letter: We did go for our second shots on Canada Day, but at the last minute, the promised Pfizers were switched out for Modernas, which put us in bed for another day.

[I never had any reaction to my vaccine shots, Pfizer, then Moderna. I did have a sore arm for a day but that was from the jab, not the vaccine.]

With building on Highway 427, not only is there several condo projects on the go, but one office building southeast of us will soon be demolished for, guess what? More condos.

[Calgary’s commercial vacancy rate is officially 30%, worse than the Great Depression. Some office towers are being converted to residential condominiums.]

Yvonne and I are still wearing our masks, as should most people, but we expect to be among the few masked left in a few weeks. I think we will wear them into September, at least.

[In Calgary, masks are no longer required except on public transit. I still wear my bandanna when walking through malls. It is surprising and refreshing to see how many other people are also wearing masks voluntarily.]

OPUNTIA #505: I have hopes for herd immunity, but I still think our assorted politicians are moving too fast to get people moving again. Ontario’s government has announced they will not issue vaccination passports, so we have created our own; vaccination receipts are photo-reduced, and laminated together. It should do for the moment. We hope to get in the USA in October, but we may not be able to if they refused to recognize our first shots, which were Astra Zeneca.

[Canadian politicians have wimped out on vaccine passports but I think pressure from the general public and businesses will push the issue. Prime Minister Justin Trudeau has been a failure in office but since he called a federal election for September 20, he may be forced to act. Alberta Premier Jason Kenney was even worse. The pandemic clearly demonstrated that none of our politicians were capable of long-range thinking.]

[It is established in Canadian law that employers and landlords have the right to demand proof of vaccination. If a common vaccine passport was developed as an easily displayed photo ID card, then the unvaccinated would have to fall in line. There would be no compulsion to be vaccinated, but those who refused would soon discover they couldn’t go anywhere.]

OPUNTIA #506: [Re: Bowness Park miniature train] I grew up in Orillia, Ontario, and one of the few highlights of me being there when I was a kid was a miniature riding train at the edge of Couchiching Beach Park. I didn’t ride it very often, but when I did, I had a great time. Little trains like this I have tried to keep up with, beyond the charms of riding the full-sized trains.

SEEN IN THE LITERATURE

Hermes, J.J., et al (2021) **8.9 hour rotation in the partly burnt runaway stellar remnant LP 40-365 (GD 492).** ASTROPHYSICAL JOURNAL LETTERS 914(1):L4

Authors’ abstract: *We report the detection of 8.914 hour variability in both optical and ultraviolet light curves of LP 40-365 (also known as GD 492), the prototype for a class of partly burnt runaway stars that have been ejected from a binary due to a thermonuclear supernova event.*

*We first detected this 1.0% amplitude variation in optical photometry collected by the Transiting Exoplanet Survey Satellite (TESS). Re-analysis of observations from the Hubble Space Telescope at the TESS period and ephemeris reveal a 5.8% variation in the ultraviolet of this 9800 K stellar remnant.*

*We propose that this 8.914 hr photometric variation reveals the current surface rotation rate of LP 40-365, and is caused by some kind of surface inhomogeneity rotating in and out of view, though a lack of observed Zeeman splitting puts an upper limit on the magnetic field of <20 kG.*

*We explore ways in which the present rotation period can constrain progenitor scenarios if angular momentum was mostly conserved, which suggests that the survivor LP 40-365 was not the donor star but was most likely the bound remnant of a mostly disrupted white dwarf that underwent advanced burning from an underluminous (Type Iax) supernova.*

Hsiao, T.Y., et al (2021) **A Dyson sphere around a black hole.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 506:doi.org/10.1093/mnras/stab1832

Authors’ abstract: *The search for extraterrestrial intelligence (SETI) has been conducted for nearly 60 years. A Dyson sphere, a spherical structure that surrounds a star and transports its radiative energy outwards as an energy source for an advanced civilization, is one of the main targets of SETI.*

*In this study, we discuss whether building a Dyson sphere around a black hole is effective. We consider six energy sources:*

- (i) the cosmic microwave background,*
- (ii) the Hawking radiation,*
- (iii) an accretion disc,*
- (iv) Bondi accretion,*
- (v) a corona, and*
- (vi) relativistic jets.*

*To develop future civilizations (for example, a Type II civilization),  $4 \times 10^{26}$  Watts ( $1L_{\text{diameter}}$ ) is expected to be needed. Among (iii) to (vi), the largest luminosity can be collected from an accretion disc, reaching  $10^5 L_{\text{diameter}}$  enough to maintain a Type II civilization.*

*Moreover, if a Dyson sphere collects not only the electromagnetic radiation but also other types of energy (e.g. kinetic energy) from the jets, the total collected energy would be approximately 5 times larger.*

*Considering the emission from a Dyson sphere, our results show that the Dyson sphere around a stellar-mass black hole in the Milky Way (10 kiloparsecs away from us) is detectable in the ultraviolet (10 to 400nm), optical (400 to 760nm), near-infrared (760nm to 5μm), and mid-infrared (5 to 40μm) wavelengths via the waste heat radiation using current telescopes such as Galaxy Evolution Explorer Ultraviolet Sky Surveys.*

Dundas, C.M., et al (2021) **Active Mars: A dynamic world.** JOURNAL OF GEOPHYSICAL RESEARCH: PLANETS 126:doi.org/10.1029/2021JE006876 (available as a free pdf)

Authors’ abstract: *Mars exhibits diverse surface changes at all latitudes and all seasons. Active processes include impact cratering, aeolian sand and dust transport, a variety of slope processes, changes in polar ices, and diverse effects of seasonal CO<sub>2</sub> frost.*

*The extent of surface change has been surprising and indicates that the present climate is capable of reshaping the surface. Activity has important implications for the Amazonian history of Mars: understanding processes is a necessary step before we can understand their implications and variations over time.*

Speirs: Many fascinating photographs in this article. Well worth downloading.



Martin, R.G., and M. Livio (2021) **How much water was delivered from the asteroid belt to the Earth after its formation?** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 506:doi.org/10.1093/mnrasl/slab062

Authors' abstract: *The Earth contains between 1 and 10 oceans of water, including water within the mantle, where 1 ocean is the mass of water on the Earth's surface today. With N-body simulations, we consider how much water could have been delivered from the asteroid belt to the Earth after its formation. Asteroids are delivered from unstable regions near resonances with the giant planets.*

*We compare the relative impact efficiencies from the  $v_6$  resonance, the 2:1 mean motion resonance with Jupiter and the outer asteroid belt. The  $v_6$  resonance provides the largest supply of asteroids to the Earth, with about 2 per cent of asteroids from that region colliding with the Earth. Asteroids located in mean motion resonances with Jupiter and in the outer asteroid belt have negligible Earth-collision probabilities.*

*The maximum number of Earth collisions occurs if the asteroids in the primordial asteroid belt are first moved into the  $v_6$  resonance location (through asteroid-asteroid interactions or otherwise) before their eccentricity is excited sufficiently for Earth collision.*

*A maximum of about eight oceans of water may be delivered to the Earth. Thus, if the Earth contains 10 or more oceans of water, the Earth likely formed with a significant fraction of this water.*

Klatt, J.M., et al (2021) **Possible link between Earth's rotation rate and oxygenation.** NATURE GEOSCIENCE 14:doi.org/10.1038/s41561-021-00784-3 (available as a free pdf)

Authors' abstract: *The rise of free oxygen ( $O_2$ ) in the Earth's atmosphere and oceans enabled the evolution of aerobic life. Oxygenic photosynthesis in microbial mats was a substantial source of  $O_2$  for the Great Oxidation Event ~2.4 billion years ago, during the stable low- $O_2$  conditions that followed and for the Neoproterozoic Oxygenation Event ~600 megayears ago.*

*The biological, tectonic, and geochemical mechanisms that determined this stepwise pattern of oxygenation are still debated. Here we explore a previously unconsidered link between Earth's oxygenation pattern and rotation rate, which decelerated over geological time due to tidal friction.*

*We establish a mechanistic link between daylength and export fluxes of solutes from microbial mats. Experimental measurements and models of Proterozoic cyanobacterial mat analogues show that longer daylength increases benthic  $O_2$  export, changes the balance between aerobic and anaerobic remineralization, and thus enhances the diel organic carbon ( $C_{org}$ ) burial.*

*We then investigated the remarkable similarity between the timing and pattern of increase in atmospheric  $O_2$  ( $pO_2$  as a fraction of the present atmospheric level) and daylength. We found that increases in daylength could plausibly have influenced Earth's oxygenation, particularly around key oxidation events, and thus helped to pave the way for the evolution of plants and animals of the modern world.*

*Longer days increase net benthic  $O_2$  export fluxes Earth's rotation period is 24 hours at present, but may have been as low as 6 hours at ages older than 4 gigayears ago. Thus, daylength (that is, one rotational or diel period) and the illumination period may have increased more than threefold since the evolutionary origin of photosynthesis.*

*This implies that the dynamics of illumination (rate of increase and decrease) within the diel period changed substantially. The rate of gross photosynthetic production (GPP) is governed by the instantaneous photon flux, irrespective of illumination dynamics and daylength.*

*The net production rate, equivalent to diel  $C_{org}$  burial, is the result of this GPP and the rate of  $C_{org}$  consumption. ... Thus, import, export and accumulation of metabolites should be sensitive to daylength due to the interaction between illumination dynamics and diffusive mass transfer.*

Yoshida, F., et al (2021) **Photometric observations of the potentially hazardous asteroid (99942) Apophis from Kawabe Cosmic Park.** PUBLICATIONS OF THE ASTRONOMICAL SOCIETY OF JAPAN 73:doi.org/10.1093/pasj/psab072 (available as a free pdf)

Authors’ abstract: *Asteroid (99942) Apophis is a potentially hazardous asteroid. The Korea Astronomy and Space Science Institute (KASI) recently proposed a rendezvous mission with Apophis, with a planned asteroid observation campaign to help determine the mission strategy in advance. In this study, we performed multicolor photometric observations of Apophis using the 1.0m telescope at Kawabe Cosmic Park on 2021 March 10.*

*Asteroid (99942) Apophis is recognized as the most potentially hazardous near-Earth asteroid. Belonging to the Aten group, it was discovered in 2004 June and was predicted to impact Earth in 2068. However, recent observations via powerful radio antennas during the approaching passage of Apophis on 2021 March 5 provided an opportunity for the re-estimation of Apophis’s orbit, which subsequently ruled out the possibility of an Earth impact in 2068.*

*Diameter: The equivalent diameter is  $0.34 \pm 0.04$ km according to Goldstone and Arecibo radar observations and the light-curve-derived shape. In contrast, diameters of  $375 +14$  or  $-10$  metres have been reported based on infrared observations.*

*Rotation period: The rotation period is  $30.56 \pm 0.01$  hr; however, the asteroid is in a state of non-principal axis rotation (tumbling). The amplitude of the light curve is approximately 1 magnitude; thus, an elongated shape model has been proposed.*

Naish, D., et al (2021) **Powered flight in hatchling pterosaurs: evidence from wing form and bone strength.** SCIENTIFIC REPORTS 11:doi.org/10.1038/s41598-021-92499-z (available as a free pdf)

Authors’ abstract: *Competing views exist on the behaviour and lifestyle of pterosaurs during the earliest phases of life. A ‘flap-early’ model proposes that hatchlings were capable of independent life and flapping flight, a ‘fly-late’ model posits that juveniles were not flight capable until 50% of adult size, and a ‘glide-early’ model requires that young juveniles were flight-capable but only able to glide.*

*We test these models by quantifying the flight abilities of very young juvenile pterosaurs via analysis of wing bone strength, wing loading, wingspan and wing aspect ratios, primarily using data from embryonic and hatchling specimens of Pterodaustro guinazui and Sinopterus dongi. We argue that a young Sinopterus specimen has been mischaracterised as a distinct taxon.*

*The humeri of pterosaur juveniles are similar in bending strength to those of adults and able to withstand launch and flight; wing size and wing aspect ratios of young juveniles are also in keeping with powered flight. We therefore reject the ‘fly-late’ and ‘glide-early’ models. We further show that young juveniles were excellent gliders, albeit not reliant on specialist gliding.*

*The wing forms of very young juveniles differ significantly from larger individuals, meaning that variation in speed, manoeuvrability, take-off angle and so on was present across a species as it matured.*

*Juveniles appear to have been adapted for flight in cluttered environments, in contrast to larger, older individuals. We propose on the basis of these conclusions that pterosaur species occupied distinct niches across ontogeny.*

*Among the more surprising conclusions of these studies are that even embryonic pterosaurs were well-ossified and adult-like in skeletal proportions, differing only in a few aspects of bone fusion and proportions. Furthermore, soft tissues preserved in embryos show that flight membranes were present even before hatching.*

*These lines of evidence indicate that juvenile pterosaurs were capable of powered flight early in life, plausibly within days or hours of hatching. Overall, their development recalls that of precocial sauropsids rather than the altricial offspring of neo-avian birds, and it seems reasonable to interpret juvenile pterosaurs as neither nestbound, nor helpless and dependent upon their parents.*

[Image on the next page is from this paper.]







**WHEN WORDS COLLIDE 2021**

by Dale Speirs

Morning has broken, like the first morning, if I may borrow from Eleanor Farjeon’s hymn made famous by Cat Stevens. Conventions will begin returning to normal, and people can gather in a room without masks or social distancing.

A goodly portion of Canada has been vaccinated and Alberta has lifted pandemic restrictions. Nonetheless, this year’s rendition of Calgary’s annual readercon was still virtual due to ongoing travel restrictions. Most of the WWC membership is from outside Calgary, so travel to our fair city would not be easy.

Once more to the screen for panels, from August 12 to 15. As every convention member knows, there are always two or more panels you want to see that are opposite each other. Instead of room hopping to get a bit of each, I screen hopped. Frustratingly, the majority were on Friday, which made for a full day staring at the screen.

On the one hand, Zoom meetings helped break the isolation of the pandemic, but conversely, staring into a screen sitting in my basement den emphasized my isolation not only from the speakers but the rest of the audience. Panels aren’t just people yapping up at the front table. Those sitting beside you in a hotel ballroom are evidence that we are not alone.

Validation of beliefs and interests requires social interaction. During the 1930s, it was a proud and lonely thing to be a science fiction fan, so they formed clubs. When prosperity returned after the war, fans could afford to travel and thus conventions came to the fore. Fanzines were an integral part of fandom from the beginning but they are the Papernet’s version of Zoom meetings.

The panels I viewed are here arranged thematically rather than in chronological order. The blurb from the programme book is in italics, and my remarks in plain text. Screenshots were done from a Samsung smartphone, as my 2006 laptop has never been online. I transfer files back and forth via a memory stick.

**The Pandemic.**

This will be an obvious subject for conventions for the next few years as society gets back on its feet. It will be interesting to see how many genre novels are published using it as a subject.

*“Publishing Two Debut Novels In The Middle Of A Pandemic: A Retrospective, One Year Later”*

J.R.H. Lawless

[no blurb but the title said it all]

Lawless never showed but Lou Rider filled in on the subject. She had completed a novel in March 2020, then had to move to Ontario for a year to settle her aunt’s estate. Her daughter worked for a publisher and was able to help her through the electronic process.

Rider had to do much of the editing herself. She had an online editor who gave her 22 pages of comments. These were mostly little glitches and continuity errors that Rider missed because her mind’s eye had filled in the details that the reader wouldn’t know.

*“Not The First, Won’t Be The Last”*

Stephen B. Pearl, Allan Weiss, Beth Wagner

*Plague has been with humanity from before we were human. What are some lessons we can learn from current plagues and what role can fiction play in preparing the populous for the current and next inevitable wave of contagious disease?*



Left: Stephen Pearl  
Below left: Allan Weiss  
Below right: Beth Wagner





Stephen Pearl said the culprits who let COVID-19 get away on them won't be proven for fifty years until after they are safely dead. With modern air travel, by the time a disease is noticed, it will be worldwide.

Allan Weiss said we learned little from the SARS outbreak. The lessons learned were never applied and soon shelved. COVID-19 will eventually be forgotten after the current generation is gone. Science fiction didn't affect the world, but the world did affect science fiction.

Beth Wagner mentioned overcrowding is the best way to spread a plague, which is why China is so often a source. Writers are now able to write plague stories from personal experience. As a result, anthologists are being buried under a flood of pandemic stories.

**The Craft Of Writing.**

*“Cross Genre Writing”*

*Su J. Sokol, Lee Gowan, Ira Nayman, Allan Weiss, Caro Soles*  
*What happens if your book falls within multiple genres? Authors are pushing boundaries and challenging labels. What are the advantages? What are the drawbacks? Join us as our panel discusses this highly relevant topic.*

Clockwise from upper left: Su J. Sokol, Lee Gowan, Caro Soles, Ira Nayman



Su J. Sokol said genre categories are all about marketing. Some readers prefer character-driven stories and don't care about the genre. Many non-genre authors who write science fiction will claim it isn't, not wanting to lower themselves.

Lee Gowan crossed Canadian prairie fiction with science fiction. The injection of a science fiction element into a story doesn't necessary make it science fiction unless the element was essential. Plot points can move a story from one genre to another if they are important.

Ira Nayman wrote about multiverses where they cross over and what is fantasy in one universe was science in another. He used humour as the overall glue to hold the story together. If he had to categorize his books, then he would call them humour, not genre.

Allan Weiss said some readers are unhappy if a story veers across genres. Any crossover must be essential to the story. If it has dragons, it's fantasy, but if the dragons are given an evolutionary history, then it is science fiction.

Caro Soles said she didn't like being in a box, viewed from a marketing angle. She writes fantasy that uses science, so her novels were classified as science fiction. As time goes by, the emphasis in her novels has shifted, and thus whether or not they are a given genre.

*“Writing Alternative Histories”*

*Chris Patrick Carolan, Robert Dawson, Marie Powell, Den Valdron*  
*Based on elements stemming from real life, Alternative History can mix elements of sci-fi, fantasy and historical fiction. Writing them requires impeccable research, and scrupulous attention to detail. Our panellists will share what makes a great alternative history and how to write them.*

First of all, well done for using the correct term 'alternative' instead of 'alternate'. Den Valdron said much alternative history uses magic, to which Chris Carolan replied that many steampunks object to fantasy, as they prefer logical extrapolation of technology in a different direction than our timeline.

Chris Carolan said put the robot on the first page to set the expectations. The realism can then follow, and the robot brought back later. Magic must have rules, otherwise it is unbelievable. He hoped television shows on historical or fictional history might bring some readers in alternative history books.

Robert Dawson mentioned that some stories were more apropos now because of the pandemic.

Marie Powell said she did massive amounts of research for her alternative histories. Much easier these days because libraries and museums are putting considerable amounts of information online. She really got into her subjects, visiting Wales and Russia for on-the-ground impressions. She mentioned driving a car on Roman roads in Britain, which gave her an appreciation of how narrow they were.

Den Valdron said that if alternative history was really honest, everything would be unrecognizable after one generation. People famous in our timeline would not be identical in another. Basic factors such as demographics and science should not be trifled with just to throw in a divergence.

Clockwise from upper left: Chris Carolan, Robert Dawson, Den Valdron, Marie Powell.



*“Character Motivations: They Must Have A Reason For What They Do”*  
Angela Ackerman, Krista Wallace, Jennifer Gordon, B.G. Cousins  
People act and react according to their experiences. Anything else is out of character. The panel will discuss how they keep their characters grounded and believable.

Clockwise from upper left: Angela Ackerman, Krista Wallace, B.G. (Bret) Cousins, Jennifer Gordon



Angela Ackerman said characters must be trying to achieve something for reasons of their own. Random actions with no background explanation discourages readers. Abraham Maslow’s pyramid of human needs is a basic tool to direct how characters are motivated.

Krista Wallace said a character’s motivations must cover an entire series. A story is a promise to the reader that a question will be answered about the characters. A character needing redemption for past mistakes will not take the obvious route but one based on motivations.



Jennifer Gordon develops five core memories for each character and builds from there. The characters interact with others on the basis of how they see the world and move the story from there. Don't show emotional events and then do nothing with them, like Chekhov's gun.

Bret Cousins uses honour, love, loneliness, experience, and anger to build up his characters. How the characters reach a goal is determined by their background. Each takes a different route depending on their motivations. He said that as a result of this, he found his main character in one novel suddenly switched to another as the circumstances surrounding them changed.

**The Business Of Publishing.**

*“Also Known As ... ?”*

*Edward Willett, Monica Zwikstra, Su J. Sokol, Lisa Wilde*  
*So you’ve finished your novel, it’s been edited and it’s ready for publication. The question is: what should the byline be? Use your real name, or some form of it, or go for a completely different pen name? This panel will discuss the pros and cons and whys and why nots of using a pseudonym vs your actual name.*

Edward Willett was Eddie Willett when he began as a newspaper reporter. His pseudonyms are the middle names of himself and his brothers. Publishers asked for pseudonyms to separate the style of his books and give him a fresh start for a new audience. He also writes for one publisher under a house name.

He said that the easiest way to uncover a pseudonym is to check the copyright notice on the colophon of the book. (That is how I check for pseudonyms in my reviews of cozies.) As a Willett, he noticed his books were usually at the bottom of the shelves in bookstores.

Monica Zwikstra said hear!, hear! to that last remark. She noted that authors who keep publishing will build up an audience who have expectations of what a new book should be like. Suddenly changing styles but keeping a name will cause problems.

Su J Sokol said that much to her surprise there were lots of Susan Sokols online, one of whom owned a winery and buried her references far down the Google results. Su J was more distinctive. She used other pseudonyms to sort out her edgier books so as to distinguish them by their themes.



Lisa Wilde said that authors now have to be proficient in all forms of online media. She said that women should not use married names because divorces can create some nasty problems.

George Elliott is an example of gender switching in order to be published. Harlan Ellison used Cordwainer Bird whenever he disagreed with how his stories were adapted for the screen, which was usually often.

Top left is Edward Willett, top right is Monica Zwikstra, and Lisa Wilde at lower left.

*“Passive Marketing For Self-Published Authors”*

*Ella Beaumont, Beth Wagner, P.L. Stuart*  
*Passive marketing is the catch-all term for anything that you create, brand, or put on display for your customers to find. If active marketing is the post you put up on Facebook or the ad campaign you run on Amazon, then passive marketing includes things like the content of your sales page and the branding on your covers. Join a panel of self-published authors as they discuss passive marketing, how you can leverage it, and why it can be your best friend.*

Ella Beaumont said the title, cover art, and series designation are the biggest steps in passive marketing. A series title is important so that readers can find other books in a series. Correct branding is essential so that readers know what

to expect from the author. Publishing sites don't want multiple links on their sites that connect to competitors. Don't post an Apple link on your Amazon page.

P.L. Stuart said some active work is required such as announcing new books on social media or podcasts. Pay attention to international platforms that North Americans don't see but which Europeans use.

Beth Wagner said an author should be out and about to establish a presence. Not walking up to people and asking them to buy the book, but just keeping the name recognition going without any high-pressure selling.

Below left: Ella Beaumont



Below right: P.L. Stuart



**Genres.**

*“Horror: Future Scares”*

*Nancy Kilpatrick, Colleen Anderson, Konn Lavery, Beth Wagner*  
Horror literature reflects the age in which it is written. This panel briefly touches on the themes and tropes which have been utilized by writers over the last 4 centuries. Panellists speculate and brainstorm with the audience on what new horror fiction will emerge in a post-pandemic world.

Colleen Anderson said most horror is the fear of others. The traditional vision of Hell is where the torment goes on forever, to which the pandemic seemed analogous. The isolation of lockdowns was part of the pandemic horror. She said publishers told her they did not want any COVID-19 stories.

Beth Wagner said horror was fear of the unknown, of which the initial stages of the pandemic was an example. Part of horror is when a slight change veers the characters off the road and takes them further and further away from normality.

Konn Lavery said fiction has become faster over the decades. Older fiction seems slow paced and becomes unreadable. The other panelists agreed that horror is becoming faster paced because much background no longer has to be explained.

Nancy Kilpatrick said the pandemic dragging on and on was horror. It was not understandable in the early stages. In the past, people had lots of time to read, so they put up with slow pacing. Geographical information had to be unloaded because few people knew much about the world beyond their village. Today authors can take for granted that if, for example, a story is set in Paris, the city's geography doesn't have to be described.



At left: Nancy Kilpatrick  
Below left: Colleen Anderson  
Below right: Konn Lavery





*“Where History Meets Mystery”*

*Shirlee Smith Matheson, Jacqueline Guest, Loraine Fowlow, Bill Prentice*

*Our authors explore how historical events have inspired their writing; the challenges of researching the past; and how we walk a fine line between mystery and history when writing.*

Clockwise from upper left: Shirlee Smith Matheson, Jacqueline Guest, Loraine Fowlow, Bill Prentice



Shirlee Matheson said the facts have to be correct but can't overwhelm the story. When writing such stories about recent events, one has to be careful about libel and privacy laws. Those involved may still be living and inclined to sue, even if the names were changed. The dead can't sue.

Mistakes are not always the author's fault. She published a book on unsolved aviation mysteries. The publisher used a cover which showed a civilian bush plane with an RCAF roundel.

Jacqueline Guest wanted kids to learn Canadian history in a fun way, and to preserve the personal stories that otherwise might disappear. She changed names of people and towns as well, such as Pincher Creek, Alberta, becoming Hopeful. In a story about Calgary in 1943, her editor dissuaded her from naming all the stores in the downtown. If using your family as models, don't kill off the wrong relative.

Loraine Fowlow has published a series on building collapses. They don't all make the headlines like the Surfside condo collapse. She said she followed the money to see who got greedy. Canadian engineers wear an iron ring on their pinkie finger made from the collapse of the Québec bridge to constantly remind them of their responsibilities.

Bill Prentice researched money laundering in Canada and from that did some writing. He did some research for a 17<sup>th</sup>-century story and got so wrapped up in the data that he didn't get around to writing the book. One has to be careful not to bury the story under irrelevant details.

Mistakes, however, can break the fourth wall. He mentioned one of the Bourne conspiracy books where a woman said she grew up on a ranch in Ontario. As every Canadian knows, that province has farms but no ranches. That mistake pulled every Canuck reader out of the story, like saying Times Square is in Brooklyn.

*“Bring On The Goths”*

*Chris Marrs, Jennifer Gordon, Valerie Estelle Frankel*

*Victorian, American, Prairie, and Southern Gothic are all facets of the Gothic Horror genre. They may often share some elements like creepy houses, and desolate settings but what are the differences? Panelists will discuss writing in the variations of the Gothic Horror tradition.*

Chris Marrs said atmosphere is a big part of gothics. She pointed out that the traditional gothic, commonly attributed to the Victorian era, was actually a revival of gothics from the 1700s. Romance gothics existed before Frankenstein.

Jennifer Gordon, a ballroom dancer by trade, has several gothic novels published. Most readers think of gothics as vampires in a castle. A lot of deluded or mentally ill characters in gothics, who lose touch with reality.

Valerie Frankel said there are now a wide variety of subgenres in gothic, such as suburban or Harry Potter. She preferred the traditional woman in a white nightgown running from a manor house. The woman knows something but no one believes her.

The three panelists discussed the television series BUFFY at length. It wasn't gothic per se but used many elements from the genre. Some individual episodes were indeed outright gothic.

Left to right: Chris Marrs, Valerie Estelle Frankel



*“Cozies On The Edge”*

*Cathy Ace, P.D. Workman*

*While some cozies nail the form, others are constantly pushing the envelope with unconventional protagonists, darker subject matter, complex relationships, and even a little snark.*

Cozies are the Miss Marple type of mysteries, where a woman, usually middle-aged and owning a small shop or restaurant in a village, continually becomes involved in murder mysteries. If it is a long series, the village will have a murder rate that would make Chicago look like a walk in the park.

Cathy Ace, a Brit, said North Americans tended to define cozies differently, more to themes such as food cozies. Semi-professionals, such as retired police, may behave like Miss Marples but take the story out of cozydom. Cozy detectives must be true amateurs. They have the Typhoid Mary syndrome, for wherever they go, a murder will happen.

Ace's protagonist in her series narrated in the first person. She had snarky thoughts the reader was privy to but not the other characters. Interior dialogues allow the boundaries of the subgenre to be pushed out while still keeping the outward trappings of a cozy.

P.D. (Pamela) Workman has a paranormal cozy series that is slightly off the usual run. The edgier stuff is questionable as to whether it is still a cozy or became a traditional amateur sleuth mystery. The problem with writing a long series is trying to think of a new variation, which may lead to drifting across the subgenre line.

Left to right: Cathy Ace, Pamela Workman



**Science Fiction.**

*“The Synergy Between Science Fiction And Science”*

*Ron Friedman*

*From genetic engineering, artificial intelligence, satellites, sliding doors to cell phones. Ron S. Friedman, a science fiction writer and a blogger will explore how science fiction inspired new technology innovations and how new scientific discoveries ended up as bestselling stories.*

Ron Friedman set out the case that science fiction is the most important genre because it inspired technology and vice versa. Public perception and adaptation to the new technologies is helped by science fiction preparing the way.

Examples are artificial intelligence, blockchain software, genomics, autonomous devices, and non-fungible tokens. Many problems along the way, such as anti-vaxxers and Moon landing deniers. Greater emphasis need for STEM training in schools.

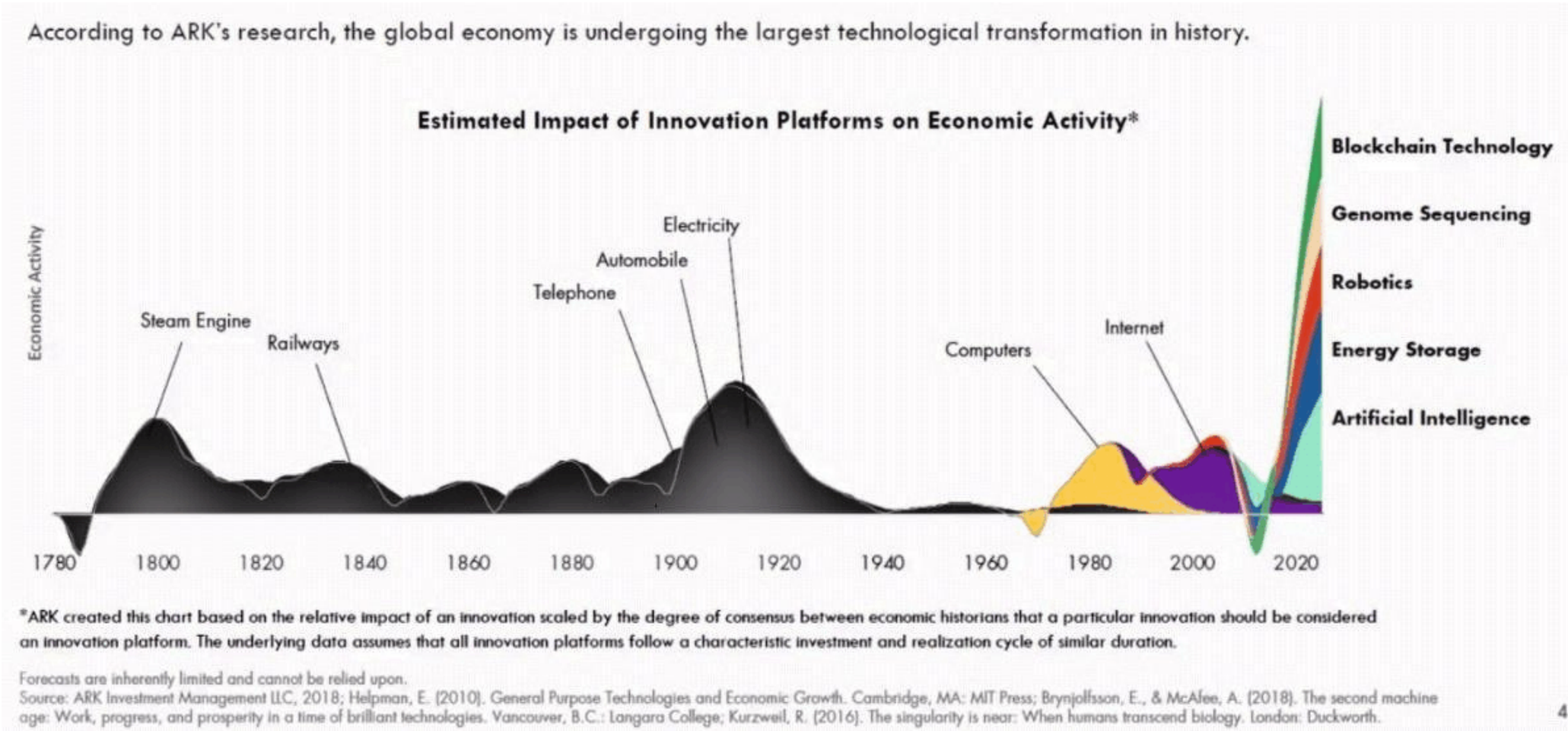


Most famous inspiration was the Star Trek flip phone. Tablets, sliding doors, voice recognition, flat-screen televisions, video chats, Roombas, and space tourism all came first in science fiction. Humans will eventually become a multi-planet species.

The movie ARMAGEDDON is used by NASA as a training film. Staff are asked to spot the scientific errors, of which 168 have been found. Michael Crichton read a science article about reviving extinct species, which resulted in the Jurassic Park franchise worth billions.



Below: Screenshot of a chart shown by Friedman.  
At right: Ron Friedman



## *“Translating Real Science Into Gripping Fiction”*

*Claire McCague, V. S. Holmes, Julie E. Czerneda, Stephen B. Pearl*

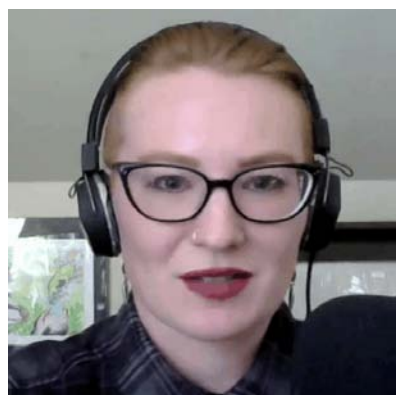
*Fiction authors discuss using hard science as a source of inspiration, and sometimes a basis, for their fiction.*



At left: Claire McCague

Below left: V.S. Holmes

Below right: Julie Czerneda



Claire McCague wished she could come up with a way to roll trees up to buildings with no air conditioning so as to cool them. That would enable plot points such as the problem in watering the trees.

V.S. Holmes writes gothic horror and is looking for a way to make fungal mycelia analogous to nervous systems for one of her stories. She is a visual person and likes to research on YouTube and Curiosity Stream (documentaries). When trying to figure out how a gadget or process would work, there is always Google.

Julie Czerneda uses three zeros in a row while typing her text to mark spots where she has to come back and fill in the scientific details. She is old enough to have used typewriters, in which case she marked unclear spots with Post-It

notes. She likes SCIENTIFIC AMERICAN and SCIENCE NEWS as sources for breaking news.

Stephen Pearl had a character in a post-apocalyptic world installing wind turbines on his wagon to generate electricity. Pearl saw a documentary about wormholes in which it was mentioned the only way they could use them for faster-than-light travel was by exploding stars to provide the energy.

The wormholes would be routed through a telephone switchboard. At that point he had to stop and explain to the younger generation watching on Zoom what a telephone switchboard was. Geez, now I feel old.

## *“Science Fiction As A Critical Tool For Understanding Social And Political Issues”*

*Ron Friedman, Nina Munteanu, V. S. Holmes, Claire McCague*

*“Art plays a key role in shaping people's view of the world, and on the twenty-first century science-fiction is arguably the most important genre of all, for it shapes how most people understand things such as AI, bioengineering, and climate change. We certainly need good science, but from political perspective, a good science-fiction movie is worth far more than an article in Science or Nature.”* - Yuval Noah Harari, *“21 Lessons for the 21st Century”*

Ron Friedman is an Israeli-Canadian, and remarked that Israel was founded on science fiction. Star Trek was his childhood influence, which addressed issues he understood as a child in Israel, when the Soviet Union was sponsoring Arab countries against Israel. He also mentioned books like ANIMAL FARM, BRAVE NEW WORLD, and 1984, which were warnings for what is now happening around the world. Think about China's current social credit system.

V.S. Holmes said science fiction doesn't commonly address the fact that if humans colonize space, there will be disabled people out there. She said there are now categories and support groups for authors who wanted to write beyond the standard hero or heroine.

Claire McCague mentioned first contact stories. She mentioned the aliens would not necessarily use technology the way we do, which would flummox humans expecting them to think the way we do. She once found a bookstore which had a shelf labeled “radical science fiction” and noticed all the authors were women writing in the new subgenres.





Nina Munteanu (at left) writes eco-fiction which she originally couldn't market as such. Now it exists as a subgenre, with or without cli-fi. Readers can search for that category.

As soon as we put a name to something, it gains influence. Such fiction can provide some hope by offering solutions.

She mentioned how *THE HANDMAID'S TALE* and 1984 suddenly began selling well again in 2016. Female protestors marching against Trump wore handmaid costumes to visualize for the general public what might be.

#### *"Classic To Contemporary Cli-Fi: Notes On A Genre"*

Ariel Kroon

*Cli-fi (climate fiction) sets its plot in a world irrevocably altered due to dramatic shifts in the planet's climate. Learn about the beginnings of this genre, its history from the 1960s until the present, and some examples of cli-fi from popular media, both classic and current, Canadian and American, in text and on screen. What kind of stories have been told using the cli-fi convention? Does cli-fi have to mean sci-fi?*



The chitchat just before Ariel Kroon (at left) began her talk was about the forest fire haze from British Columbia that was covering Alberta. She lives in Edmonton and had air purifiers running full blast.

Dan Bloom coined the term cli-fi in 2008. Stories on the theme date back to J.G. Ballard's *THE DROWNED WORLD* (1962) and *THE BURNING WORLD* (1964), although some of Jules Verne's books touch on the subject.

Movies include *THE DAY AFTER TOMORROW* (2004) and many other disaster films. *SNOWPIERCER* (2013) was a movie I shall look for, about an ice age that was triggered when anti-global warming measures went too far and tipped the climatic balance back in the opposite direction.

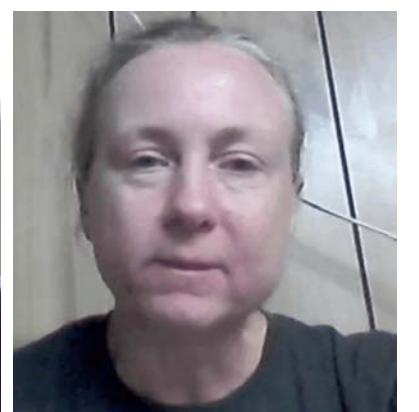
Plots in cli-fi are generally based on a protagonist dealing with the after effects of extreme climate change. The stories emphasize the consequences in economic, socio-political, and military life. Solarpunk is a subgenre.

#### *"The Cthulhu Mythos"*

Daniel Wright, Kevin Weir, J.Y.T. Kennedy, Justin Acton

*The Cthulhu mythos is a shared fictional universe created by H.P. Lovecraft which incorporates slow-creeping madness and cosmic horror along with insanity resulting from contact with the impenetrable "Eldritch Gods". Its influence can still be seen in today's Marvel and DC Multiverses. Join our panelists as they discuss the seminal world of Lovecraft's Cthulhu Mythos.*

Clockwise from upper left: Daniel Wright, Kevin Weir, Jennifer Kennedy, Justin Acton



Daniel Wright remarked that Lovecraft stories are not predictable in the way of standard vampire or monster stories. The heroes are not equipped to handle the Lovecraftian creatures. No superheroes to save the Earth. The Mythos was an open-source creation. Lovecraft encouraged others to use his aliens and settings. Wright compared the Mythos to being a type of cowboy horror stories.

Kevin Weir came into the Mythos via a board game. He said the aliens were beyond the standard of other writers. The Elder Gods and company didn't take notice of humans except when they annoyed them, like a mosquito buzzing about. Other authors used the standard invasion motif with a hero to save the world.

Jennifer Kennedy said Lovecraft went off in different directions from other writers. She said the Mythos was basically a conspiracy theory. The public didn't know and the governments were covering up. No heroes came to save the day, and the problem was still ongoing to our day.

Justin Acton said the characters didn't understand the Lovecraftian creatures, but more dangerously, some of them thought they did. The human race was put into peril by people who thought they could control the Elder Gods or shoggoths.

**When Words Collide 2022**

We certainly hope that WWC 2022 will be a live event next August. Details will be available later this year from: [www.whenwordscollide.org](http://www.whenwordscollide.org)

I'm as patriotic as the next person, but I'm getting tired of the bandana.

**ZINE LISTINGS**

[I only list zines I receive from the Papernet. If the zine is posted on [www.efanzines.com](http://www.efanzines.com) or [www.fanac.org](http://www.fanac.org), then I don't mention it since you can read it directly.]

THE FOSSIL #388 (US\$10 per year from The Fossils Inc, c/o Tom Parson, 157 South Logan Street, Denver, Colorado 80209) This publication covers the history of zines since the first national organization of zinesters was formed in 1876.

This issue was mostly housekeeping matters, such as the endowment fund which maintains the Library of Amateur Journalism at the University of Wisconsin. There was a sudden spike in FOSSIL pdf downloads after it published original research about H.P. Lovecraft, who was a zinester from way back. There is a report of a zinester convention in 1939 in New York City.



Your humble editor.