

OPUNTIA 438



Saint Urho's Day 2019

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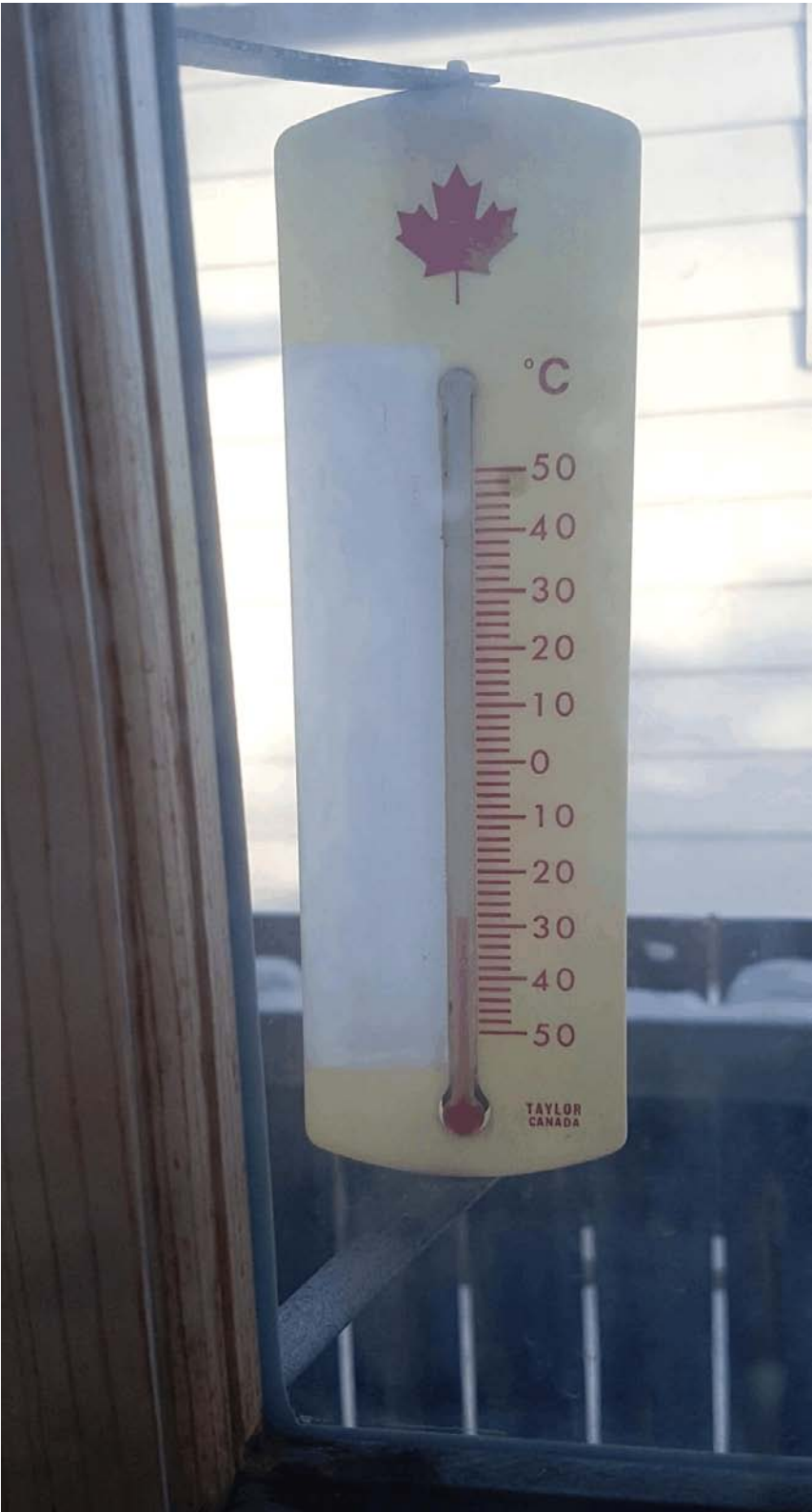
WINTER'S TRACES

photos by Dale Speirs

The cover photo was taken looking east from the Sunalta LRT station toward the west end of the downtown core. A train makes its way into the station, passing overtop the transcontinental railroad that defines the southern boundary of the core.

The photo below looks west from another part of the station. The orange lamps are infrared heaters to keep warm those waiting for the train, as none of the stations are otherwise heated.

At right is the thermometer outside the kitchen window at Chez Opuntia on March 4. The good news was that warm weather finally arrived in time for St. Urho's Day on March 16, and temperatures have since fluctuated between -10° and +10°C. Spring has sprung on winter's traces.



FROM THE BARGAIN BIN: PART 3

by Dale Speirs

[Parts 1 to 2 appeared in OPUNTIA's #367 and 368.]

Scientifiction.

From the 50-DVD set “Sci-Fi Invasion” (Mill Creek Entertainment) came the movie RAIDERS OF ATLANTIS (1983), written by Tito Carpi and Vincenzo Mannino. This was an Italian film originally titled I PREDATORI DI ATLANTIDE (“Predators of Atlantis”), then dubbed into English and released under several different titles.

The plot began with a hush-hush recovery operation in the Gulf of Mexico, with an American team trying to bring a sunken Russian submarine to the surface. Working from an oil drilling platform, they dredged up a tablet with Aztec glyphs on it. For unexplained reasons, as the submarine was lifted a cataclysm occurred and Atlantis rose to the surface. It turned out to be an island, obviously a stock shot, not a continent, about the size of a rural village.

The island was covered in lush tropical vegetation, explained by a force-field dome that had kept it in stasis for lo! these many years. The survivors of the recovery team landed on the island, which was protected by a Goth punk bike gang. There were various alarums and excursions, but the team eventually penetrated to the command centre of the island. This consisted of an altar with giant screens surrounding it, upon which appeared the visages of grim-looking Atlantis elders.

The Aztecs qua Atlanteans put up a good fight but were only temporarily stymied. The surviving Atlantis elites raised the dome again as the island sank back into the sea in an Italian version of Gotterdammerung, presumably to leave room for a sequel. The heroes barely made it off the island before the dome closed and the island sank to whence it came.

The SFX were marginal at best, with tsunamis that had large water droplets and video screen displays that used graphics only a few years out of date. The actors and the script were average. No great emoting but no wooden performances either. I had mixed feelings as to whether this movie was bad or just slightly below the average television movie of that era. Worth watching once, but only on a rainy Sunday afternoon when you have nothing better to do.

DESTINATION INNER SPACE (1966), written by Arthur C. Pierce, was a low-budget movie about the trials and tribulations of an underwater oceanographic research station. I found this in the DVD bargain bin for \$6, about fair market value. The film was in colour and was slightly above the production values of 1950s B-movies. The producers tried but were hampered by a minimal budget for SFX.

The story began when a giant USO (unidentified submerged object) began zooming around the station. At one point it passed directly overhead and was shown through a porthole as being bigger than the station. It eventually settled down about a nautical mile away.

The station despatched three people to check it out. Lots of underwater sequences of them scuba diving along the route, passing a wide variety of corals and fan algae. The problems with the SFX began with the fact that the exterior views of the station and USO were obviously miniature models.

The USO was explicitly described and pictured through the view screens as a giant flying saucer. The long shots of it resting on the ocean floor were careful to keep fish out of the scene. However the coral and algae, which the viewer saw as being breadbox size at most compared to the scuba divers, were still there. The USO hid behind one of the coral clumps, which made it appear visibly as a small model. The scuba diving was realistic though, as many of the actors were trained for it, and one of the actresses was a championship diver.

Getting back to the plot, the scientists climbed into the USO, which had a moon pool that was obviously a re-dressed set of the research station’s moon pool. They found a large capsule, the size and shape of a scuba air tank, and carried it back to the station.

Back there, it began growing and eventually burst to produce a giant rubber suit, pardon me, reptilian monster with a red mohawk. The creature was a head taller than any of the crew and weighed twice as much. One wonders where it got its mass, since its egg capsule was only the size of an air tank. It ran amok, as such creatures often do, but never ate anyone, just killed or wounded them.

The scientists concluded that the USO was a remote probe sent ahead by an alien civilization. The probe’s purpose was to release the monsters, who would disrupt humans and pave the way for an invasion force. From there were the standard alarums and excursions of monster movies.

There was much to-ing and fro-ing between the station, the USO, and the surface support ship. This enabled the director to use all their underwater footage. The soundtrack was poorly done. As the scuba divers bubbled their way along, the orchestra would work itself into a frenzy as if it were the climatic fight. One crescendo after another would erupt every time a diver swam past a clump of coral. Tiresome.

The big ending was the destruction of the USO and the monster by dynamite. It didn't seem likely that an underwater research station would carry mass explosives but there they were. The explosion was a tiny puff of sand that coated a few nearby corals, far off scale from what it was supposed to be.

Were it not for the risible rubber suit monster and the lack of proper scaling of the models, the movie might have been much better. The actors did a reasonable job, but could not overcome the off-kilter SFX. Worth watching once if you find it in the bargain bin or on a streaming service.

MISCELLANEOUS SCIENCE FICTION

by Dale Speirs

The Great White Hunter.

“Hunting The Snark” by Mike Resnick (1999 December, ASIMOV’S) is an amusing re-interpretation of Lewis Carroll’s famous poem as if it were a hunting safari. A hunting guide named Karamojo Bell (real name Daniel Bellman) was taking a group out on safari on Dodgson IV, an uncharted planet.

The preliminary survey suggested that the planet had many dangerous creatures, about which nothing was known. The most dangerous one was what the tour group dubbed the Snark, a biped tracked by its footprints but not seen. The hunters became the prey, but there was a twist ending when the Snark revealed itself and its motives were explained. Resnick did a nice job of matching verses of the poem to the story, and providing a fresh look at what the poem was really about.

What Might Have Been And What Really Was.

THE CLOCK STRUCK NONE (2014) is a collection of alternative and secret history short stories written by Lou Antonelli. I won’t review all of them but the book in general was good reading.

“Great White Ship” began in 1974 during a vicious thunderstorm in East Texas, through which an American Airlines passenger Zeppelin sailed into our timeline via a temporary rift between universes. The USAF was called in, impounded the 126 crew and passengers, and put a lid on the event.

The politics of the alternative timeline were interesting, with a logical explanation based on the divergence of Huey Long never having been assassinated, which led step by step to a very different World War Two without the atomic bomb.

“Meet Me At The Grassy Knoll” is a secret history about what really happened on that fateful day in Dallas. A clever story about who was the second gunman and why he was never found. He wasn’t firing at Kennedy but aiming at Oswald.

“Damascus Interrupted” supposed that Saint Paul never founded the Christian Church, and Christianity remained a minor religion among many. What most people don’t understand is that while Jesus founded the religion, he did not build the Church. It was Saint Paul’s work that established it.

The future world became a swarm of various religions after Saul of Tarsus took a bad fall from his donkey while on the road to Damascus and broke his neck, never becoming Paul the church builder.

The jarring note was that the story took place millennia later in Dallas, Texas. Really? The city might be there but the name would be different. Nonetheless an interesting story.

“Pirates Of The Ozarks” was based on a plausible geological alternative. The New Madrid earthquakes of 1811-12 were stronger than in our timeline, as a result of which the adjacent land subsided from liquefaction and created the Great Inland Sea. The Ozarks became islands favoured by pirates, which caused no end of trouble for the young American government.

Brave New World.

Anyone who blithers about the joys of a network of autonomous vehicles and smart things hasn't thought it through. Like the cashless society, it will bring new horrors with each software update. An example is machine ethics, that is, does an autonomous car swerve to avoid hitting three old ladies or not if it would mean it instead ran over a small child. (See OPUNTIA #428, pages 24 and 25.)

“Negotiating Traffic” by Brad Preslar (2019 Mar/Apr, ANALOG) considered the reverberations when someone using smart glasses wasn't paying attention to his surroundings. Jeff stepped off a curb into the path of an autonomous car because he was teleconferencing on his smart glasses instead of watching where he was going. The car swerved onto the sidewalk to avoid him, destroyed a hot dog cart, and crushed a homeless man on the other side slumped against a building and thus unseen by the car.

Jeff was liable for \$60,000 for causing the accident, but the story didn't end there. It gave him the idea for the perfect crime, how to murder his boss using someone else's autonomous car.

Androides And Robots.

The word ‘robot’ was introduced into the English language in 1921 from a play by Karel Capek (pronounced ‘chop-ek’) and replaced the previous word ‘android’, which, however, was to be revived in 1977. I discussed the etymology of those two words in OPUNTIA #4, and reviewed the Capek play ROSSUM’S UNIVERSAL ROBOTS in issue #21.1, both of which are available online.

Now for a momentary jump. Fred Allen is forgotten today except by old-time radio fans, but in his time he was considered the greatest ad-libber there ever was and one of the best stand-up comedians. He started out in vaudeville and moved into radio in the early 1930s.

From the 1930s until the late 1940s, it was customary for a radio series to be named after the sponsor. Allen went through a number of sponsors; in 1933-34 his show was THE SAL HEPATICA REVUE. It was actually sponsored by Bristol-Meyers for their laxative Sal Hepatica. (This and other OTR shows are available as free mp3s from www.otrlibrary.org.)

In a 1934 episode titled “Mechanical Robot”, Allen was managing a Florida hotel and dealing with all sorts of characters. The first half of the show was random gags. In the second part, an inventor brought in a robot named Rodney, suggested that Allen buy it for use as a house detective. He insisted on a trial first with actual call-outs.

The robot was programmed with a plethora of responses for almost any situation. As Allen and the inventor watched from a distance, it answered the first call-out with an inappropriate response. The second call was no better. Third time was not lucky.

Allen was enraged, grabbed the controls from the inventor, and chose the option “Bum’s rush” for the robot to deal with the guest. The robot responded by seizing Allen and throwing him out of his own hotel. Today we would say it needed a software update.

FOOD COZIES: PART 5

by Dale Speirs

[Parts 1 to 4 appeared in OPUNTIA's #432, 433, 434, and 436.]

Cozy mysteries are Miss Marple style novels, very popular. Most are worth reading once if you like mysteries, although it is doubtful any of them will stand the test of time. Like zines and Websites, there numerous specialized cozies.

I have learned from experience to read these novels on a full stomach. Recipes are generally included, if not at the back of the book, then in between chapters or sometimes integrated into the text. It can be very dangerous to read these books if you have an appetite.

Bakeries.

CINNAMON ROLL MURDER (2012) by Joanne Fluke was a novel in a lengthy food cozy series set in Lake Eden, Minnesota. The village Miss Marple was Hannah Swensen, who owns the bakery.

Now that April's here, the Weekend Jazz Festival was not far behind. One of the bands booked for the event was the Cinnamon Roll Six. Unfortunately their bus was in a multi-vehicle pileup en route, and the band members arrived in ambulances. Keyboardist Buddy Neiman received minor injuries. The accident took place on black ice. Swensen was in the midst of it but escaped, as described in great detail.

After a cinnamon rolls recipe at the end of Chapter 3, the narrative resumed in the hospital waiting room. Triage was underway by the medical staff on the incoming flood of victims. Swensen was there to offer succor in the form of cocoa cookies for the survivors. The delicious treats turned to ashes in their mouths immediately after the cookie recipe when someone stuck a pair of surgical scissors deep into Neiman's chest as he lay on a gurney.

There were suspects among both the medics and the band. Pausing only for recipes, Swensen plunged into her sleuthing. Every character ate so much in every chapter that the reader will conclude that morbid obesity is endemic in Lake Eden.

It was astonishing how much they packed away. There were recipes for hamburger bake, butter cake, cardamon cookies, tapioca pie, apple muffins, lemon cake, oatmeal cookies, and bacon pancakes.

The denouement took place in the hospital, where Swensen was chased hither and yon by a murderous doctor. So serious was her situation that no recipes were interleaved between the chapters. Swensen escaped by a fluke. All ended well with a recipe for chocolate caramel pecan bars.

BANANA CREAM PIE MURDER (2017) began with Swensen's honeymoon, she now being Hannah Swensen Barton. She and her husband Ross returned from a cruise ship voyage to find her mother Delores mixed up with the death of a neighbour, stage actress Victoria Bascomb.

Swensen's staff were running the bakery while she was away, and on the table of the deceased was one of the bakery's banana cream pies. Apparently that made her a suspect, not that any court would allow such a ridiculous supposition to be introduced as evidence. It was, however, enough to start her Marpleing through the village.

The chapters and recipes flow by in a steady stream as the family backgrounds of the happy couple were explained. Of greater relevance are the catfighting and politicking going on at the community theatre, where Bascomb had waded into the fray with great zest. There was also an embezzlement to muddy the waters.

Much of the narrative was taken up by characters preparing food, eating gourmet meals while discussing the ingredients, or contemplating their next go-around in the kitchen. Do not read this book on an empty stomach, or it will kill you.

The murderer was an actress seeking revenge for something that happened years ago. That turned out to be a minor climax, for Swensen was stunned a few pages later when Ross left her after only two weeks of marriage. To be continued in a future installment. Most cozies are zero-reset novels, but this series became an open-ended saga about the romantic perils of Swensen.

CRUST NO ONE (2018) by Winnie Archer was a novel in a food cozy series about Ivy Culpepper, an apprentice baker in the village of Santa Sofia, California. She worked in a Mexican bread shop called Yeast of Eden, owned by Olaya Solis. She had an on again/off again relationship with local restaurateur Miguel Baptista.

As the novel opened, the relationship was off again. One of Baptista's produce suppliers Hank Riviera went missing, so Culpepper became involved in Marpleing the case. She was assisted by a group of old biddies known as the Blackbird Ladies, the worst gossips in the village.

Culpepper had a photography business on the side. The bakery was her day job that paid the bills. Baptista wanted some new menus, direct mail ads, and a Website, for which he needed photos. That and the Riviera disappearance brought them together.

Riviera was recently divorced, had financial problems, and was a recovering alcoholic. Culpepper and Baptista began excavating buried skeletons around the village (figuratively, that is), finding things that townfolk would prefer to have forgotten.

The village's Winter Wonderland Festival was nigh (in California?), so Culpepper was kept busy at the bakery, which had a booth in the fete. She

picked up a fair amount of gossip about Riviera while selling croissants, scones, and brioches.

The middle two-thirds of the novel dredged up more and more about Riviera's past and his secret present life. No sign of the man himself until Chapter 20, when his body was found in a garbage bin. This forced a rushed ending in the few remaining chapters, as fresh suspects and motives were hurriedly shoved onto the stage.

Out of nowhere, came a boarding house operator who was killing tenants and then using their identities to milk their pensions. Too many pages were wasted on red herrings, and not enough on the real story. A cheat conclusion.

MEET YOUR BAKER (2015) by Ellie Alexander (pseudonym of Kate Dyer-Seeley) is the first novel in a cozy series about Juliet Capshaw of Ashland, Oregon. She had returned there after the breakup of her marriage. She had been a pastry chef on board a cruise ship and was now settling into a job at the family bakery Torte, owned by her mother Helen.

The Shakespeare Festival was ongoing, always good for the tourist trade. Not so good was the death of Nancy Hudson, newly appointed to the board of directors of the Festival. Nothing in her life became her like the leaving of it. She was commonly compared to Lady Macbeth and was not widely mourned.

Capshaw found her body in the Torte kitchen. Hudson was killed by a blunt instrument, after which the murderer went into a wild rage and smashed dozens of large jars of raspberry jam. After the police were done, Capshaw cleaned up the jam but had trouble washing her hands clean. The damned spot would not come out.

There were some obvious suspects, and something was whispered about the Festival's finances. The Torte wasn't doing that well either. The back stories came to light. There were dramas behind the stage, illegitimate children, family problems, and Capshaw herself was an emotional mess. People were physically assaulted and other alarms kept the pot stirred.

The final confrontation with the killer revealed it was a woman driven psychotic by financial woes and threats from Hudson. Capshaw barely survived a stabbing. It ended with recipes in the appendix for Raspberry Danish, Chocolate Hazelnut Torte, and assorted others.

ON THIN ICING (2016) continued the saga of Juliet Capshaw, whose ex-husband arrived in Chapter 4 to complicate the plot.

Torte got an order to cater the board meeting of the Oregon Shakespeare Festival, held at a nearby fishing resort. Capshaw and her staff used the resort's kitchen, convenient until she found a body in the freezer. It was the bartender, a ladies man and all-around boor, who apparently offended someone past the breaking point. The good news was that the murder wouldn't be tallied on Ashland's score.

The remote location gave Capshaw free reign to investigate, without any of those annoying police detectives tramping around. She was still mooning about her ex, wondering if she should take him back. The catering had to go on.

After a variety of red herrings had been fished out of the lake, the denouement was that a hired hand had been stealing cash from the resort operations. Capshaw verified this in the usual Miss Marple tradition, by having the murderer hold her at gunpoint and explain all the details she had missed. She escaped of course, since this is a series.

Once all the "As you know" details were wrapped up, it was on to the recipes appendix. Purge your worries with orange cardamom rolls, roasted chicken, braised green beans, and double chocolate cookies. If that didn't fill you, then continue on to the beef stew, cherries jubilee, and snowflake lattes.

CAUGHT BREAD HANDED (2016) was the next installment in the series, reviving Juliet Capshaw's problem with her ex-husband. The skirt chaser was constantly pleading with her to take him back. The Shakespeare Festival had closed for the season, but Capshaw's presence as the local Miss Marple ensured the death toll would keep climbing. Pity the residents of Ashland.

Mindy Nolan opened a fast food outlet called ShakesBurgers in town but did not live long enough to book any profits. The place was garishly decorated and not part of the image the town folk wanted, but there it was. Nolan had no shortage of enemies, which explained why she was found in her store with her wrists slashed.

You will be unsurprised to learn that Capshaw found the body. At the sight, she went shaky and nauseous all over, becoming catatonic from the shock. Not believable this late in the series, as by now she had seen many bloody corpses.

Realistically, she should have just shrugged her shoulders and dialed 9-1-1 with a sigh.

Be that as it may, the police and Miss Marple investigations proceeded. Capshaw recovered her composure enough to help Torte staff begin planning for the upcoming Chocolate Festival. The main priority was not the death but getting enough chocolate eclairs and cupcakes ready for the event. Her romantic life was a mess, but she managed to sort that out, and sent her ex-husband on his way.

Oh yes, the killer was caught, a business partner of Nolan who had serious financial disagreements with her. Follow the money, as they say. The recipes in the appendix help assuage depression with Chocolate Molasses Crumble and Red Velvet Cake, among others.

FUDGE AND JURY (2017) carries on the epic of Torte. In every food cozy series, at least once the cook or baker was suspected of serving a poisoned dish, and the saga of Juliet Capshaw was no exception.

The Chocolate Festival nigh, and the Torte staff were churning out chocolate and cheese crepes at full speed. Evan Rowe, the proprietor of Confections Couture, specialized in chocolate fountains and truffles. He failed to Google about Capshaw and hadn't heard the gossip, so he accepted an invitation to visit Torte and sample the 4-layer chocolate cake. It was the last thing he ever did.

After trotting out all the suspects and histories, Capshaw once again trapped herself with the murderer and had to be rescued. The culprit had been frozen out of Confections Couture by Rowe. It was not a routine business transaction from the murderer's point of view.

The recipe section veered about wildly. It started with Chocolate Spice Cake, which given the novel's plot might be off-putting to some readers. The next item was Meat Loaf Sandwich, not exactly a gourmet choice.

Then, and this really puzzled me, Chicken Apple Sausage Quiche. The ingredients list called for 4 chicken apple sausages. This must be an American thing, as I've never heard tell of them up here. We have beef, pork, or turkey sausages in Calgary supermarkets. I suppose chicken sausages are not beyond the realm of possibility, but I have never seen any kind of sausages with fruit mixed in. Readers please advise.

BLEEDING TARTS (2018) by Kirsten Weiss is a novel in a cozy series about Valentine Harris, owner of the struggling Pie Town shop in San Nicholas, California, somewhere on the edge of Silicon Valley. She was sponsoring a pie-eating contest in Bar-X, a fake ghost town nearby which catered to the more exclusive tourist trade. Her hope was to get a regular contract as a supplier.

This being a cozy, and she being the Miss Marple, her arrival at Bar-X set off bloodshed. She hadn't even finished unloading her pies when someone shot one out of her hands. She took cover in an alley where she found the saloonkeeper's body. Welcome to the Wild West.

Harris dredged up some background info but was distracted by the hassles of running a shop. The expenses kept piling up, and somebody had to cook the pies. The clues also piled up, as did the bodies. It all came down to a lone gunman upset by his paternity, or lack of it rather, which was still crippling him psychologically.

After the last shot was fired, it was on to the recipes, starting with Peach Blueberry Ginger Pie and Apricot Pie. The Cauliflower Blue Cheese Pie should have been edited out, and the Banana Butterscotch Cream Pie was marginal.

Cookies.

COOKIE DOUGH OR DIE (2011) by Virginia Lowell was the first novel in a food cozy series about Olivia Greyson of Chatterley Heights, Maryland. With her partner Madeline Briggs, they operated The Gingerbread House bakery, which specialized in cookies.

Clarisse Chamberlain had the honour of being victim #1 of the series. She was a businesswoman who had been Greyson's mentor and helped her open the shop. Chamberlain's will left Greyson a good sum of money and a set of antique cookie cutters. When a postman fell ill after eating one of Greyson's cookies, the Deppity Dawg was suddenly suspicious, so she had to do some Marpleing to save her business.

The Chamberlains had various soap operas going among the branches of their family. Greyson noticed the cookie cutter collection, a room full, not just a drawer or box of them, had some cutters shaped like real people or designs associated with them.

Greyson decided that she would catch the conscience of the murderer not with a play but by arranging a display of the cutters in her shop. She laid out the cutters in a pattern that would seem random to an outsider but tell a recognizable story to the killer. It worked.

Chamberlain had learned that she had a granddaughter she never knew about, and the killer wanted any connection kept quiet. It was a revelation that cost her life. No recipes appendix, unusual for a food cozy.

A COOKIE BEFORE DYING (2011) was the sequel, a chronicle of Olive Greyson and her cookie shop versus Charlene Critch, a fanatical vegetarian who owned The Vegetable Plate. Critch’s store was vandalized and she blamed Greyson. Matters were not helped when The Gingerbread House had a special on cookies shaped like fruits and vegetables.

The body, and there was one, was Critch’s ex-husband Geoffrey King. Worse yet, Greyson’s brother Jason confessed to the crime, trying to cover up for the woman he loved, Charlene. Lots of back stories, so many that Greyson hardly had time to work in her shop. She did have one other mystery though, as someone was pilfering her antique cookie cutters.

The denouement came out of nowhere. King had been an abusive boyfriend and husband. One of his ex-girlfriends had finally worked up the courage to do something about him. Everything was explained over a hearty meal of eggs and sausages. Not a cookie in sight.



Calgary Co-op, 2018

The third novel in the series was WHEN THE COOKIE CRUMBLES (2012). The village of Chatterley Heights was celebrating its 250th anniversary. Greyson and Briggs made a gingerbread house modeled after Chatterley Mansion. Trouble developed when the heir to the manor, Paine Chatterley, was murdered.

The investigation garnered a number of dramas dating back decades, including a faked death. The two Miss Marples weren’t much better with all their criminal trespass, break-and-enter, and violation of privacy laws. At the centre was a missing collection of cookie cutters that the original Chatterleys had brought over from England during colonial times.

A local historian had become obsessive over the thought they might be hidden in the mansion. He quarreled with Paine Chatterley and killed him. All was explained during a hearty meal of roast beef, but this time with a dessert tray of cookies.

ONE DEAD COOKIE (2013) brought soap opera actor Trevor Lane to the village. Page 2 had the hilarious line: *Chatterley Heights considered itself safe from big-city crime, despite evidence to the contrary.*” The plot took a while to get going because the back story about Lane had to be set up first.

Lane didn’t appear on stage until the middle of Chapter 6, then departed this vale of tears in Chapter 9. The manner of his leaving was unusual. His body was left on the porch of The Gingerbread House, cookies were stuffed into his mouth, and a red-hot cookie cutter used to brand his face. Someone really disliked both him and Greyson.

Olivia Greyson worked in her sleuthing between running the shop and helping her partner Madeline Briggs, who was getting married. The engagement party required cookies, lots of them, so the kitchen was working overtime. In between discussing recipes for rose and lemon cookies, the two women tried to work out the social dynamics that led to the murder.

Everything came out related to a murder decades ago. The victim’s sister used an elaborate plan to bring the killer down, while he himself was trying to implicate others by leaving false clues. Among others things, he was distributing cookie cutters anywhere near a crime, not excluding illegal parking. A complicated and tangled ending.

COOKIES AND SCREAM (2014) continued the saga of The Gingerbread House. Olivia Greyson and Madeline Briggs had been entrusted by Greta Oskarson to broker the sale of her set of antique cookie cutters. Unfortunately Oskarson did not live to see a single cutter sold. She did make it as far as Chapter 10, an unusual length of time for a cozy murder victim #1. Her death might have been natural causes or it may have been murder. Naturally the two Miss Marples from the cookie shop began sleuthing.

Oskarson had spent much of her life in Europe before returning to her childhood home in Chatterley Heights. She had married a series of elderly but rich European men. They died not in due course but ahead of their time, each leaving her an inheritance.

Her antique cookie cutters had a doubtful provenance and had some fakes mixed in. Two of her husbands had died by falling off their yachts and drowning. She was, as the saying goes, known to police, in both Britain and France.

The killer was a granddaughter by a previous wife on one of those rich old men. She not only wanted revenge but also the return of her family's heirloom cookie cutters. There was a final held-at-gunpoint confrontation, followed by a wimpy ending. The weak ending was followed by an equally weak recipe section, that is, only one recipe, for Tangerine Cardamom Shortbread.

DEAD MEN DON'T EAT COOKIES (2015) was the next installment about The Gingerbread House. Olivia Greyson's mother Ellie was converting an old boarding house into an arts-and-crafts school, with a commercial kitchen for baking classes. It would never be that simple, and it wasn't.

Construction workers tearing out the old drywall found a pile of bones. Within the bones was a silver necklace with a cookie cutter charm. Don't act surprised. Greyson and Madeline Briggs leaped into the cold case.

Alicia Vayle, one of the workers, thought the bones might be those of her father, missing for many years. To spice things up, an elderly woman, whose past acting career was little noted then or now, decided to produce a play about the bones, based on the premise that Peter Pan had been walled up for decades but was now free again. There's never a dull moment in Chatterley Heights.

Since Greyson and Briggs were known around the village as murder magnets, that helped boost sales at The Gingerbread House. It was stated that tourists

came by to see the crime venue and indulge in a cookie. There was a bit of contradictory copy editing, as further on in the novel Greyson fretted over poor sales in the shop, then another leap further on was pleased at how sales were holding.

The pile of bones turned out to be the intermingled remains of two men, one skull of which had a bullet hole in it. The Vayle family had several different soap operas in their past and present, and were the type who define the term "white trash".

They enacted an entirely new drama in the basement of the boarding house, with Greyson and Briggs starring as hostages. It transpired that the assorted Vayles were searching for a treasure, said to be antique cookie cutters. Yeah, right.

The ending was a complicated mess that even after re-reading was still confusing. The recipe appendix was much simpler, with only one recipe, for meatloaf. One gets the impression the author wasn't really paying attention to her novels.

WORLD WIDE PARTY ON JUNE 21

Founded by Benoit Girard (Quebec) and Franz Miklis (Austria) in 1994, the World Wide Party is held on June 21st every year. 2019 will be the 26th year of the WWP. Mark your calendars now!

At 21h00 local time, everyone is invited to raise a glass and toast fellow members of zinedom around the world. It is important to have it exactly at 21h00 your time. The idea is to get a wave of fellowship circling the planet. Rescheduling it to a club meeting or more convenient time negates the idea of a wave of celebration by SF fans and zinesters circling the globe.

At 21h00, face to the east and salute those who have already celebrated. Then face north, then south, and toast those in your time zone who are celebrating as you do. Finally, face west and raise a glass to those who will celebrate WWP in the next hour. Raise a glass, publish a one-shot zine, have a party, or do a mail art project for the WWP. Let me know how you celebrated the day.

BOTANICAL FICTION: PART 11

by Dale Speirs

[Parts 1 to 10 appeared in OPUNTIA's #316, 317, 320, 323, 325, 334, 369, 380, 402, and 412.]

How Green Was My Planet.

ALL FLESH IS GRASS (1965) by Clifford Simak begins with the town of Millville, Wisconsin,** being surrounded by a force field set up by aliens. The barrier stopped humans or any vehicle containing humans from going through, but unmanned vehicles could still penetrate it. The telephone lines were unaffected, so there was communication with the outside world.

The narrator is Brad Carter, a hometown boy whose business was going belly-up. That proved to be the lesser problem when aliens made him their spokesman. The aliens contacted Carter by telephone, so at first he didn't know what they looked like.

Years ago, Carter's father, an avid gardener, had found some strange purple flowers over yonder in Dark Hollow and transplanted them to his yard. He was generous with offsets, and now the purple flowers were established all over the village. Carter found out from another villager that the purple flowers were the aliens. They could assume any plant shape and had over the past centuries, the better to be inconspicuous as they studied Earthlings.

They were a hive mind, connected by their interlinking root systems. The Flowers came from the Earth of a parallel universe, and were stepping their way from one Earth to another. They wanted lebensraum, and were do-gooders, come to show other Earths the way. A dangerous combination.

The Flowers told Carter they were bred by another alien species about a billion years ago as a living computer database within which to collect, store, and analyze data. Now they were ready to bring sunshine and peace into the lives of all humans, whether or not it is wanted.

This included a demand by the Flowers that all fissionable material be dispersed and there be an end to war. (Remember that this novel was written at the height of the Cold War.)

** An actual town which was Simak's birthplace. He worked it into many of his stories.

The villagers went berserk at such unreasonable demands and so did the Pentagon, which planned to drop an H-bomb on Millville to eradicate the aliens. 300 villagers would also die. Regrettable, but as was soon to be said in Vietnam, it was necessary to destroy the village in order to save it.

The novel fizzled out with an expressed hope of negotiations instead of the Bomb. The story may have lost its relevance temporarily after the fall of the Berlin Wall, but with the rise of Al Qaeda and Daesh, it is worth reading today.

How Does Your Garden Grow?

"Rappaccini's Daughter" is an 1844 story by Nathaniel Hawthorne, available in his collection MOSSES FROM AN OLD MANSE, which can be downloaded for free in a variety of formats from www.gutenberg.org

The story is about mad scientist Giacomo Rappaccini, who specialized in developing medicines made from poisonous plants. He had bred some plants so poisonous that just to breathe their scent could be fatal. His daughter Beatrice had worked for him since she was a young girl. She developed an immunity to all the poisonous plants.

Giovanni Guasconti, a university student, rented an apartment overlooking the deadly garden, saw Beatrice tending the plants, and was attracted to her. He tried to court her but it was a doomed romance. He attempted to cure her with an antidote but it killed her instead.

The story is slow reading for a modern reader. The language is verbose, and the sentences tend to wander about before finally reaching the period. Nonetheless, it was an interesting concept.

Flowers as tactical weapons were used in "Agnes Joaquim, Bioterrorist" by Ng Yi-Sheng (2016, ON SPEC #102). The lady of that name found a strange orchid which had the power to change human behaviour, and she applied it for social reform.

The story is steampunk, where Queen Victoria traveled about by airship. Joaquim carried out attacks with her plants, both assassinations and rousing the rabble to social reform. Beware of hybrid *Vanda* orchids; they may be the death of you.

Cozy Mysteries.

DRAGONWELL DEAD (2007) by Laura Childs (pseudonym of Gerry Schmitt) is a novel in a cozy series about Theodosia Browning, proprietor of the Indigo Tea Shop. It began at a plantation mansion in Charleston, South Carolina, where an open house was being held for the rabble so they can see how their betters live. Just the gardens though. No one was allowed inside the big house. Browning poured tea and murder.

Among other activities, the open house had a plant auction. Bidding was spirited for a rare orchid, which commodities broker Mark Congdon won for \$900. He didn't get to carry it home to his greenhouse, dying in Chapter 1 from poison in the tea he just drank. Supplied by Browning, of course. Where's Nero Wolfe when you really need him?

He not being available, nor Archie Goodwin, it was Browning who did the investigating. The deceased was not popular with some people, including a woman scorned, and rival orchid fanciers. His widow's house was torched a few days later. Browning served tea and cake to the firefighters. None of them were poisoned thankfully.

Browning went orchid collecting with a friend in nearby woods. A sniper opened fire and they barely escaped. Other melodramas developed, including one from out of Browning's past. The local Orchid Society was none too happy.

There was the standard near-fatal confrontation with the murderer. He had killed Congdon to cover up a fraud at the brokerage. She escaped him via a very improbable rabbit hole, and not just figuratively. All ended well, for her at least. She celebrated with a nice cup of tea. Too many giant leaps of faith required for this novel.

THE BEGONIA BRIBE (2013) by Alyse Carlson is a novel in a cozy series set in Roanoke, Virginia. The protagonist was Camellia Harris, who was promoting a garden affair called the Little Miss Begonia Pageant. Like all beauty pageants, there was a fair amount of drama on the catwalk and at the judges' table. Local newscaster Telly Stevens got mixed up in a love triangle and was poisoned by an unknown plant extract.

The Roanoke Garden Society was hosting the pageant. It was held in a local park in late July, after most of the blooming season was over, so large quantities

of paper flowers were brought in and tied to the shrubbery. Someone was trying to sabotage the pageant, such as hosing the paper flowers with water to ruin them, and hacking an organizer's computer.

Harris's Marpleing brought forth the accusation that Stevens was fathering out-of-wedlock babies, including one still on the way at his death. However, the culprit changed with every chapter, both for the pregnancies and the murders. The reader will get whiplash over the last three chapters. Justice of a sort was served in the end. One valuable hint: never grow oleander in your garden.

PLAYED BY THE BOOK (2015) is a novel in a cozy series by Lucy Arlington, which was a pseudonym of Susan Furlong, and/or Jennifer Stanley aka Ellery Adams and Sylvia May. It's complicated. As near as I could figure from Googling, this is a franchise whose authors changed in mid-stream.

The protagonist of the series is Lila Wilkins, who was a slush pile reader for the Novel Idea Literary Agency in Inspiration Valley, North Carolina. Yes, the very thing a off-track rural village needs, and somehow it was thriving better than its New York City rivals.

Be that as it may, Wilkins was put in charge of a garden party for a book signing by Damian York, host of a garden show on cable television. The annual village garden competition was underway, and York's visit was part of the festivities.

The agency boss decided that Wilkins' garden, as decrepit as it may be, was the perfect spot for the signing, and much cheaper. Chapter 1 concluded with her saying: *"This event will be like a walk in the park, or should I say garden. After all, it's just a signing and dinner. What could possibly go wrong?"* Indeed.

Since this was a novel and not a 14-page vignette, the plot moved on. In the second chapter, Wilkins' son Trey dug up a human skull while working in their garden trying to get it ready for the book signing. A new location had to be found while the police dug up the yard.

In between rushing about with the event planning, Wilkins began her own snooping by going to the real estate agency that had sold her the house to find more information about the history of the place. The agency was called Sherlock Holmes Realty.

I pride myself on being a self-controlled man, so instead of throwing the book across the room after that line, I calmly turned the page and kept reading. The real estate agent was Ruthie Watson, a devout Sherlockian, who decorated her office in the style of 221B Baker Street. She advised Wilkins that the house had been previously owned by the Cobbs.

Meanwhile, back at the garden club competition, Fanny Walker was found dead in her rose garden. Wilkins didn't find the body, much to the villagers' surprise, as they had taken to referring to her as a murder magnet.

She spent much of the novel suspecting a vicious competitor who wanted to thin out the field, so to speak. Not entirely implausible, as a few garden club shows in the real world have involved sabotage, although not murder to my knowledge.

Walker may have been murdered by her greedy stepson, who wanted her land to sell to York, who was thinking of settling down in the area. More alarms and excursions, including threatening letters and someone cutting the power steering line on Trey's car.

The skull was finally identified as York's long-lost sister. Walker had been a social services worker way back then who had placed her with the Cobbs, who were abusive foster parents. York got his revenge, but never made it to his book signing. The garden competition was a success though.

MURDER IN THE SECRET GARDEN (2016) by Ellery Adams (pseudonym of Jennifer Stanley) is a novel in a cozy series about Jane Steward, who operated a resort called Storyton Hall. She was a single mother with young twin sons. The big house was now her hotel, and she lived in a cottage that once was a hunting lodge. Attached to the cottage is a private garden of herbs and medicinal plants.

The garden was of particular interest to a group staying at Storyton Hall, the Medieval Herbalists. They had come for the botany, but one of them also came for murder. The body of Kira Grace was found floating in the river, dead by poison. Not on Storyton Hall property fortunately, but as usual Steward found the corpse.

She was not pleased at always being the one who finds the body. *She didn't want to dwell on the tragic events of the past. Even though those events had brought the media flocking to Storyton Hall and had increased their bookings*

by 200%, Jane didn't want the resort to flourish because people had met their untimely end under its roof.

Grace may have been a blackmailer. Her possible murderer was the next victim, a drug dealer who dealt in marijuana on the side but did his main business in poisonous and hallucinogenic herbs. No synthetics for him.

The plot was complicated by several interconnected families, medicinal drug dealing by both growers and pharmaceutical corporations, and now-grown children acting out. It all ended up in lawyers. A good reason to stay on friendly terms with people who grow nightshade and foxglove in their gardens.

When Murder Was In Full Flower.

Running a flower shop isn't the quiet complacent business many think, mainly because of the bridezillas. And, of course, if you live in a rural village with its own Miss Marple, expect the blood to flow like sap.

MUM'S THE WORD (2004) by Kate Collins (pseudonym of Linda Tsoutsouris) was the first novel in a cozy series about Abby Knight of New Chapel, Indiana. She flunked out of law school and opened a flower shop but quickly developed a sideline as a Miss Marple. She had problems with a competitor undercutting her prices, but things got worse when a hit-and-run driver bashed in her parked car.

That put Knight into detective mode, assisted by an ex-cop Marco Salvare. Remember his name; he'll show up again later in the series. The driver might have been a murderer fleeing the scene of the crime. She quickly became immersed in a variety of ugly matters ranging from political corruption to wife beating to road rage.

Knight still had to sell flowers though since there were bills to be paid. A good customer was an elderly woman who wanted to order flowers for her funeral in advance. Knight had to deal with a greenhouse supplier who did vicious business, and a corrupt inspector who tried to shake down her flower shop.

It all ended in the standard trapped-in-the basement scenario with the killer. There were so many motives and machinations going on that it took several pages to sort them out. The quiet life of the flower shop resumed, at least until the next installment.

Which was a week later in SLAY IT WITH FLOWERS (2005). Other cozies try to space out the murders at several months intervals, but this series didn't even wait for the funerals to be over. Abby Knight's cousin Jillian was getting married again. It was an annual event, although Jillian never quite made it to the altar each time. She was a rich heiress, so Abby was anticipating supplying a carpet of flowers from the shop, starting with a vanload of callas.

This go-around was messier though, as one of the groomsmen disappeared and the body of another was discovered on a beach. Not even a week since the last murder. Is this a record for Miss Marples?

The bridesmaids and groomsmen had a history with each other, not the pleasant kind. They, and Abby, all started Marpleing, although she had to earn a living. One of her customers was hosting a July 4th party and wanted to cover her back yard with a giant flag made from flowers. The rich live differently from you and I. But pay attention to that because it will re-appear.

The plot bloomed into a variety of alarums and excursions, one of which was a Chinese brothel the dead man had frequented. Abby was trapped in that mess but since she was the protagonist of the series she survived. The prostitution slave ring was broken. Jillian went back to worrying about which flowers go best with taffeta.

The third novel was DEARLY DEPOTTED (2005) which opened just before the July 4th celebrations. Abby Knight was an extremely busy woman. She had to plant that back yard with the floral flag, plus cousin Jillian choose the holiday for her wedding. Abby not only provided the wedding flowers but was a bridesmaid. All on that day.

She was now firmly established as a murder magnet, so on to the wedding. Just before the ceremony started, there was a brawl between two guests from the bride's side of the family, followed by one of the combatants being murdered behind the pulpit during the reception. But the flowers were beautiful.

The bride's family were rich but they were still white trash who didn't pick their friends any too carefully. Abby had lots of scandals to uncover, and plenty of angry and violent suspects roamed about. The murderer had settled accounts with the victim because he had been cheating on her. She then came after Abby because the little snoop wouldn't leave well enough alone.

Normally at this point the cozy would conclude with an all's-well ending for everyone except the dead and the culprit. Jillian and her husband, married only hours, broke up before they even started their honeymoon.

Carrying on the travails of Abby Knight, the next installment was SNIPPED IN THE BUD (2006) and went to a campus, the university where Knight had flunked out and forced her career change.

Someone ordered a black rose to be delivered by Knight to Professor Z. Archibald Puffer, her old nemesis who had flunked her. She got into a tangle with him, and on the way out tangled with another professor Carson Reed, who also had bad blood with her. When Reed was found murdered a few moments later, Knight became the prime suspect.

She had to spend her time hiding in her flower shop processing orders in the back room, while news reporters hung about outside. Reed's students picketed her shop. In self defense, she had to a-Marpleing go. The good news, her sales assistant told her, was that flower sales were up. There is no such thing as bad publicity.

Many diversions and guilty secrets later, Knight found the murderer, a disgruntled student who had been turned down for a prestigious position and who blamed Reed. The usual held-at-gunpoint routine followed, with the equally usual last-second rescue by the police.

NIGHT OF THE LIVING DANDELION (2011) by Kate Collins had Abby Knight and her now-fiancé Marco Salvare trying to exonerate his friend Vlad Serban. Local nursing home director Lori Willis was found dead, her body drained of blood.

Serban was a Transylvanian Romanian, dressed in black, grew poisonous plants and dandelions as a hobby, and had prominent canines. Since most of the villagers were convinced he was a vampire, that made him the prime suspect.

Lots and lots of melodramas, hidden pasts, and soap operas. Knight hardly had time to set foot in her flower shop. By now she was an experienced and relentless Miss Marple, grilling people in detail, not necessarily under hot lights. It all came down to a murderer who was just plain psycho. He trapped Knight in the flower shop, where there was a battle to the end with pruning knives and sacks of potting soil.

After it was all over, everyone relaxed with a glass of Serban’s dandelion wine. For that indeed was the reason he collected them. Pause for a digression: I worked 31 years for the City of Calgary Parks Dept. as a Park District Foreman and later Trouble Calls Supervisor. Occasionally we would get a breathless telephone call from some homeowner that she had seen someone picking dandelion leaves in a park and would we please rush the police over.

Our response was that if someone actually wanted to eat dandelion leaves in a salad, that was fine by us. Anything to cut down on the number of dandelions in the turf. (Does anyone remember Ewell Gibbons?)

One problem with long-running series is that eventually the theme recedes into the background, in this case the flower shop, and the novels become straightforward Miss Marple stories. When that happens, I drop the series. So the last one I’ll review here is TO CATCH A LEAF (2011), where Abby Knight hardly had time to set foot inside her shop.

She was busy planning her wedding to Marco Salvare. Someone dented her Corvette, and her future mother-in-law was an interfering busybody, so the murder was a welcome distraction.

The wealthy dowager Constance Newport suddenly departed this vale of tears after falling down a flight of stairs. Did she trip or was she pushed? She left Knight’s shop assistant Grace Bingham a goodly sum of money, who thus became a suspect. They had a wedding to plan, but that didn’t stop Knight and Salvare from sleuthing about.

Where there’s a will, there were way too many claimants to the estate, most of whom had pasts they preferred to remain past. These included the chauffeur, ne’er-do-well relatives, and a cat named Charity, who inherited most of the estate.

More news came from an appraiser hired to assess Newport’s art collection. Forgeries, the lot of them. It transpired there were two separate crimes, the art theft and substitution of fakes by a family member, and the murder by a disgruntled servant. Little or nothing about flowers.

Another flower shop series began with BLOOM AND DOOM (2014) by Beverly Allen. It was the first novel in a cozy series set in Ramble, Virginia. Audrey Bloom is the protagonist of the series, who co-owned a flower shop

Rose In Bloom with her business partner Olivia Rose. Their shop assistant was named Amber Lee. I’m glad the author resisted the temptation to name her Flora Bell or Lily Ponds.

The rather ordinarily named Jenny Whitney was a bride-to-be who bought her bouquet from Rose In Bloom. Her fiancé Derek Rawlings, wealthy young man about town, did not solve crimes but was a skirt chaser and sharp practice operator who didn’t make it past Chapter 3 and not a page too soon. The crime scene contained a bouquet and cutting knife from the flower shop, last seen in the possession of Whitney.

Rawlings was from an old-money family who did funerals in a big way, so that generated a lot of business for decorations from the flower shop. It’s an ill wind that blows no good. Notwithstanding that, Bloom went into the amateur detective business. She brought to light that both the Whitney and Rawlings families had their melodramas.

The killer was a jealous girlfriend who got her revenge. Bloom, in keeping with Marpleian tradition, blundered into the embraces of the murderer in the flower shop and was rescued in the nick of time by Rose. As the Deppity Dawgs swept up, some good news arrived. Rose In Bloom was to be featured on a reality television show about weddings.



FOR WHOM THE BLUEBELL TOLLS (2015) picked up the series with the arrival of the film crew from the reality show FIX MY WEDDING.

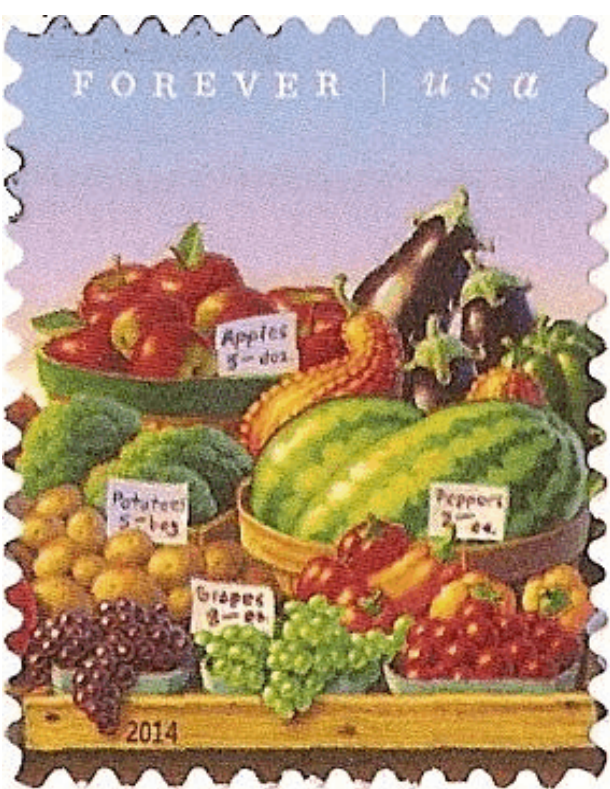
The good news was that Rose In Bloom was to be the wedding florist. The bad news was that Audrey Bloom’s ex-husband Brad was on the film crew.

The bride liked bells, so her bouquet design was obvious. Not so obvious were the behind-the-scene dramas, one of which was a bipolar television producer Gary Davoll. Someone hanged him in the belfry from the bell rope. Brad was a suspect. As much as Audrey disliked him, she was forced to do some Marpleing.

The village folk began to notice that Audrey seemed to be a murder magnet. Opie, one of her shop girls, told her: *“My dad wasn’t too happy about me coming. ‘Cause of the murder. He’s saying Ramble is becoming a dangerous place. But I told him I wouldn’t miss this for anything. Still, I have to text him every two hours.”* Smart man, her father.

The plot resolved itself around a long-ago child kidnapping and assumed identities. The denouement was a gunfight at the wedding reception where Messrs. Glock, Smith, and Wesson were uninvited guests. Great television though. Davoll had discovered the murderer’s secret and being a true reporter at heart was about to expose him on television. Never send to know for whom the bell tolls.

Market Gardening.



A TINE TO LIVE, A TINE TO DIE (2013) by Edith Maxwell was the first novel in a cozy series starring Cameron Flaherty near Westbury, Massachusetts. She was a novice organic farmer who had a market garden.

She got off to a rough start, in more ways than one. By page 3 she had fired her hired hand Mike Montgomery for just cause. By page 18, he

was dead in her barn with a pitchfork in his neck. Flaherty and the police began their investigations. She was a suspect but the rural county had its share of eccentrics, not to mention neighbouring farmers competing with her in the locavore market. (People who try to eat only locally raised food are locavores.)

Since Flaherty was now the sole person working on the farm, her Marpleing was severely crimped by having to do all the chores. A market garden cannot be put on hold after the police yellow-tape the barn. New-seeded vegetables have to be watered. Time and weeds wait for no one.

Once all the back stories and soap operas were worked out, it all came down to a man who didn’t like Montgomery moving in on his girlfriend. The murderer even less liked Flaherty exposing him. He trapped her inside the barn. The ending was a barn burner, actual not figurative, when he torched it with Flaherty still inside. She survived to carry on the series.

TIL DIRT DO US PART (2014) was the sequel. Cameron Flaherty had a new barn built and was now hosting a Farm-To-Table Dinner. The victim was Irene Burr, who had a lot of enemies for a lot of reasons. Fortunately she was murdered on someone else’s farm.

The vegetable harvest was underway, so Flaherty had to fit her sleuthing in between the digging and washing. Farm life takes no account of distractions, and the crops had to be brought in regardless of what else might be.

Flaherty and most of her neighbours were conscientious about farm duties, but not so another farmer whose operation was failing. It had gotten worse when Burr had pushed him too hard on something and paid for it with her life. Flaherty was the next target because she wouldn’t let up with her nosiness, but since she was the protagonist of the series, she survived. Market gardening isn’t as easy as it looks.

Nor was the recipes appendix. Only two of them, one for Brussels Sprouts And Shallots In Red Wine, and the other for Sweet Potato Empanadas. I’d sooner eat at Timmie’s.

The third novel was FARMED AND DANGEROUS (2015) which took Cameron Flaherty into the winter season with worries about providing produce to customers and a greenhouse that might not withstand the heavy snows. She catered to an old-folks home where one of the residents, Bev Montgomery,

keeled over after eating produce from the Flaherty farm. It was poison. Montgomery was a cranky old biddie with plenty of enemies. Her daughter was a real estate developer trying to get her farm for condos, and the care providers didn't like her verbal abuse.

Flaherty was learning from her previous experiences as a murder magnet. She had installed a security system for her house and new dead bolts on the doors. Trying to operate the farm single-handed was not easy; there is a reason why farms are generally run by families. She had chickens now, which needed constant care no matter what. Produce in cold storage or in cold frames still had to be sold if she wanted any income.

Montgomery had complications in her family life. She wanted to stop her daughter from destroying her farm, so she named an apple farmer next door as her heir. He would have kept the land green but got tired of waiting to inherit, so he had decided to speed up the process by poisoning Flaherty's produce. He forgot that a murderer can't inherit.



MURDER MOST FOWL (2016) took place in the spring when the chicks were hatching and the murderers were dispatching. Cameron Flaherty's neighbour Wayne Laitinen was a chicken farmer with troubles.

Another real estate developer had appeared, wanting his land, while animal rights activists vandalized his property. His marriage was in trouble due to financial problems. An old scandal from three decades ago was haunting him, when a young Irish woman visiting the village went missing.

All that ceased to worry Laitinen after somebody murdered him at his breakfast table. Never mind the police, it was Flaherty to the fore. She complained her market garden was a burden for one person, but if she had time to go Marpleing,

she couldn't have been that busy. Feeding the chickens twice a day, pruning the apple trees, and weeding the vegetables should have made more than enough work.

Flaherty decided to turn over her compost pile. She also turned up a human bone and a gold bracelet, which she quickly tied in to the old scandal. They belonged to the missing Irish woman. More trouble and strife, and then the usual encounter with the murderer, the widow. Mrs Laitinen wasn't aware of the old Chinese saying that before you go out seeking revenge, first dig two graves.

And so to the recipes, beginning with Irish Beef Stew With Stout. *"Makes 8 servings. Use as many local organic ingredients as possible."*

MULCH ADO ABOUT MURDER (2017) carried on the saga of Cameron Flaherty. May had arrived and so had her parents on an extended visit. Almost as bad as a murder. It was a hot dry spring and Flaherty was worried about her gardens.

It was worse for Nicole Kingsbury, who operated a hydroponic greenhouse. A lawful occupation, but Flaherty's mother was a holier-than-thou environmentalist who led a protest against it. That made her a suspect when Kingsbury was murdered in a vat of hydroponic slurry. The defunct's ex-husband and her boyfriend were also on the short list.

Flaherty inserted herself into the war between the organic farmers and the hydroponic operators. (The two are not compatible despite what some people think.) At the same time she had to deal with her father wanting to be helpful around the farm and botching things up. Somewhere in the middle of all that she did her sleuthing, but was hampered by having to keep running back to her farm to look after the chickens.

The final confrontation had its moments. The murderer, holding Flaherty and her mother at gunpoint, wouldn't follow the standard cozy script. *"You're not pulling that trope of getting a bad guy to confess at the end of the book so the heroine can stall for time."* Which, nonetheless, was exactly what happened.

It all had to do with Kingsbury being killed before the divorce was finalized so that her ex-husband could inherit. The good news was that the spring rains finally came, assuring Flaherty of a good crop.

Dramatizations.

CAVALCADE OF AMERICA was an old-time radio series that dramatized events in American history, not just the ones that made the newspaper headlines but those that were otherwise forgotten. (This and other OTR shows are available as free mp3s from www.archive.org.) “Black Rust”, written by Robert Tallman, was a 1941 episode based on a true story about Mark Carleton.

He was a farm boy who had been a university researcher. His family farm, as in most of the Great Plains in the 1890s, had their wheat crops destroyed by black stem rust. Carleton noticed that a few plants in every field managed to survive, and became obsessed with finding and developing resistant cultivars (cultivated varieties).

His Mennonite neighbours, who grew a different set of cultivars than other farmers, had better crops. They told Carleton that their seed was from the Old Country, where black stem rust was not a problem. He went off on an epic search across eastern Europe for resistant cultivars and eventually succeeded.

The basic facts are rather dull, even for someone like me who was both a farm boy and a professional horticulturist. The story is therefore spiced up with melodrama. Carleton trekked across the Russian steppes in search of healthy wheat plants. He argued with USDA bureaucrats whose mills ground slower than any grain elevator.

He struggled with grain companies whose mills couldn’t handle the hard wheat cultivars and didn’t want to spend the money buying stronger grindstones. There was a confrontation in a boardroom where he showed grain executives some loaves of bread made from the hard wheat using better grindstones.

Carleton had to convince farmers to change to the new cultivars. The drama was spiced up with impassioned pleas, followed by a sudden rush to success. Cue the orchestral crescendo and audience applause. The episode worked reasonably well, and managed to retain interest in what would otherwise be a dull subject. If you sneer at the idea that black rust would be of interest to anyone at all, remember where the flour comes from for your bread and pastries.

THE GREATEST INVENTION OF ALL: PART 3

by Dale Speirs

[Parts 1 to 2 appeared in OPUNTIA #50.1A and 393.]

Language is what separates humans from other animals. It often separates humans from humans, even if they are speaking the same language.

Tense Situations.

The comedy television series THE BIG BANG THEORY is considerably more literate than most sitcoms. It is about a group of nerdy physicists and their friends. Readily available on DVD; I have the complete set. Episode 5 of Season 8, aired in 2014, is entitled “The Focus Attenuation”, written by six people.

The boys, for that is what the physicists were at heart, got into an argument about time travel paradoxes in the movie BACK TO THE FUTURE 2. Not just drawing the time lines of who went where, but also arguing the correct tenses to use while arguing. The past is not dead in grammar. I had to start and stop the DVD many times to transcribe their argument, but here is the dialogue.

Leonard:
If future Biff goes back to 2015 right after he gives young Biff the almanac he could get back to the 2015 with Marty and Doc in it. Because it wasn’t until his 21st birthday that 1955 Biff placed his first bet.

Sheldon:
Whoa. Is ‘placed’ right?

Leonard:
What do you mean?

Sheldon:
Is ‘placed’ the right tense for something that would have happened in the future of a past that was affected by something from the future?

Leonard:
“Had will have placed”?

Sheldon:
That's my boy.

Leonard:
Okay, so it wasn't until his 21st birthday that Biff had will have placed his first bet and made his millions. That's when he altered the timeline.

Sheldon:
Yeah, but he had will haven't placed it. Unlike HOT TUB TIME MACHINE, this couldn't be more simple. When Biff gets the almanac in 1955, the alternate future he creates isn't the one in which Marty and Doc Brown ever use the time machine to travel to 2015. Therefore, in the new timeline, Marty and Doc never brought the time machine ...

Leonard (interrupting Sheldon):
Wait, is 'brought' right?

Sheldon:
Marty and Doc never "had have had brought"?

Leonard:
I don't know, you did it to me.

Sheldon:
I'm going with it. Marty and Doc never had have had brought the time machine to 2015. That means that 2015 Biff could also not had have had brought the almanac to 1955 Biff. Therefore, the timeline in which 1955 Biff gets the almanac is also the timeline in which 1955 Biff never gets the almanac.

And not just never gets. Never have, never hasn't, never had have hasn't.

Clearly defined, isn't it? Or perhaps I should write, or should have written, wasn't it?

Rural Grammar.

Another intelligent comedy television series was CORNER GAS, which appeared from 2003 to 2009 on the CTV network and is available on DVD. It was created by stand-up comedian Brent Butt, a small-town flatlander from Saskatchewan. It was set in the fictitious village of Dog River, down in the

flattest and driest part of Saskatchewan. He played Brent Leroy, the proprietor of the Corner Gas service station and convenience store, a placid man secure in the knowledge that he had the only gas station within sixty kilometres and thus a monopoly (as he stated).

His clerk was Wanda Dollard, who liked to wear push-up bras to boost the business (as she so stated). She had a degree in linguistics with a minor in comparative religion, which ideally suited her for a job clerking in the convenience store.

The next-door neighbour was the Ruby Café, run by Lacey Burrows. The village idiot was Hank Yarbo, a local handyman who always had lots of time to lean on the counter at Corner Gas and waste it with Brent. They were at school together.

Brent lived in his own house but his parents were just down the street. His father Oscar, who had founded Corner Gas before selling out to his son and retiring, was a cranky old coot always up to something. His mother Emma was the matriarch of the group.

"Tax Man" (2003) was the second episode of the series, written by Brent Butt and Mark Farrell. Marvin Drey, a tax auditor for the CRA, appeared at the service station on official business and introduced himself to Brent.

"*Ah, the taxman*", said Brent. "A taxman" replied Drey indignantly. "*I'm not the taxman, I'm a taxman. Saying the taxman is just a little too dehumanizing.*" "*Well, this has come up before, hasn't it?*", replied Brent.

The good news was that Drey had come to audit Oscar, not Brent. Dutiful son that Brent was, he quickly pointed out his father for the sacrifice. Oscar angrily lectured Brent, "*Oh sure, there you go. Take his side, all buddy-buddy with the tax man.*" Drey corrected Oscar: "A tax man! I'm a tax man!"

Oscar and Drey walked out of the scene. Later Brent and Dollard were stock taking in the store. He warned her not to say "the tax man" if she happened to meet him. This launched her into a lecture about articles, both indefinite ('a' or 'an') and definite ('the'). From there, she went on to bore Brent with a long infodump about articles in other languages. She did have a degree in the subject.

Throughout the episode it became a running gag. As other characters interacted with Dollard or Brent, they were constantly being corrected on the proper use of ‘a’ versus ‘the’, leading to squabbles all over the village as people corrected each other’s grammar.

Oscar enlisted Hank to help him plot a workaround for the audit, a recipe for failure. It turned out that Drey was a nice guy, as long as you used articles correctly. He let Oscar off the hook, as well as dispensing free tax advice to Burrows. And so he departed Dog River. Not the Dog River, or a Dog River.

The problem of articles reappeared in the 2005 episode “Key To The Future” from Season 3, again written by Brent Butt and Mark Farrell, who would not let it go. The main plot of this episode was whether or not the village should fill in its one pothole in the street, which gives you an idea how small Dog River was.

Burrows complained she wrecked the suspension on her car when she ran over a pothole. Dollard immediately leaped into the fray: “*Do you mean a pothole or the pothole?*” Burrows chastised her: “*Okay, you know what, you really got to knock off the article stuff.*” Oscar puts in “*Hear, hear.*”

Burrows: “*Did you just say “Hear, hear”?*”

Brent: “*Actually, you know, since the town only has one, Wanda’s use of the article ‘the’, while a tad pretentious, is justified.*”

Dollard: “*And using the word ‘tad’, that’s not pretentious?*”

Oscar: “*Hear, hear*”

Brent (to Oscar): “*Do you and Mom have the Parliamentary Channel now?*”

A 2004 episode from Season 2 was “Lost And Found”, written by Paul Mather and Kevin White. It opened with a cold teaser about grammar. Dollard and Burrows were talking about a concert they would be going to in the big city, while Brent was setting out new stock. He overheard and remarked: “*I’m not up on that new stuff.*”

“*You’re not up on it or you’re not into it?*”, asked Dollard. Replied Brent, “*I might be into it if I was up on it, but I’m not up on it so I’m not into it. What I’m in to, I’m up on.*” Burrows interjected: “*I’m mostly into what I’m up on, but even though I’m not up on the new stuff, I’m sort of into it.*”

“*I’m down with that.*”, said Brent. Dollard summed up: “*Prepositions are fun, aren’t they!*”. “*What’s a preposition?*”, asked Brent. That killed the

conversation, as it would anywhere else. Dollard didn’t have the heart to lecture Brent.

Bottled Up.

I bought this orange drink at a fast-food outlet and photographed with my smartphone its claim about nothing rhyming with calcium. After I had drunk most of it, I noticed the French side (required by bilingualism laws in Canada) contradicted the anglophone side. ‘yummm’ does indeed rhyme with ‘calcium’.



SEEN IN THE LITERATURE

Gueroult, B., et al (2019-03-04) **Do pulsars rotate clockwise or counterclockwise?** arXiv:1903.01193v1 [astro-ph.IM] Preprint at www.arxiv.org

Authors’ abstract: *Pulsars are rotating neutron stars which emit lighthouse-like beams. Owing to their unique properties, pulsars are a unique astrophysical tool to test general relativity, inform on matter at extreme densities, and probe galactic magnetic fields. Understanding pulsars physics and emission mechanisms is critical to these applications.*

Here we uncover that mechanical-optical rotation in the pulsars' magnetosphere affects polarisation in a way which is indiscernible from Faraday rotation in the interstellar medium for typical GHz observations frequency, but which can be distinguished in the sub-GHz band. Besides being essential to correct for possible systematic errors in interstellar magnetic field estimates, our novel interpretation of pulsar polarimetry data offers a unique means to determine whether pulsars rotate clockwise or counterclockwise, providing new constraints on magnetospheric physics and possible emission mechanisms.

Combined with the ongoing development of sub-GHz observation capabilities, our finding promises new discoveries, such as the spatial distributions of clockwise rotating or counterclockwise rotating pulsars, which could exhibit potentially interesting, but presently invisible, correlations or features.

Szalay, J. R., et al (2019) **Impact ejecta and gardening in the lunar polar regions.** JOURNAL OF GEOPHYSICAL RESEARCH: PLANETS 124:143-154

Authors’ abstract: *The Moon is continually impacted by small particles shed primarily from comets, which impact the Moon from a variety of organized directions. These impacts kick up a significant amount of the lunar soil above the lunar surface and sustain a permanently present cloud of ejecta around the Moon. Previous work categorized the ejecta cloud in the Moon’s equatorial plane.*

Here we extend that work to understand the ejecta environment in the high-latitude polar regions of the Moon. We find that there are significant

quantities of impact ejecta generated in the polar regions. Over long periods of time, lunar material is preferentially distributed to the mid to high-latitude regions, providing a pathway to mix equatorial and polar regolith.

Additionally, we find that a polar orbiting spacecraft equipped with a dust analyzer can measure appreciable quantities of lunar ejecta near the poles to constrain the water content in the polar regions.

Airless surfaces like the Moon’s are completely exposed to interplanetary dust particles or meteoroid impacts. The lunar surface is covered with a layer of loose rocky material, including fine dust particles. This regolith has been formed and remains continually reworked by the intermittent impacts of comets and asteroids and the continual bombardment by meteoroids. Each meteoroid impact produces more ejecta mass compared to the primary impactor mass, most of which at the Moon remains bound and returns to re-blanket the surface in a process known as impact gardening.

Impact gardening is an active process occurring on all airless bodies in the solar system and may also be an important driver in the evolution of water on the lunar surface. Water is thought to be continually delivered to the Moon through geological timescales by water-bearing comets and asteroids and produced continuously in situ by the impacts of solar wind protons of oxygen-rich minerals exposed on the surface.

El Albani, A., et al (2019) **Organism motility in an oxygenated shallow-marine environment 2.1 billion years ago.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:3431-3436

Authors’ abstract: *The 2.1 billion-year-old sedimentary strata contain exquisitely preserved fossils that provide an ecologic snapshot of the biota inhabiting an oxygenated shallow-marine environment. Most striking are the pyritized string-shaped structures, which suggest that the producer have been a multicellular or syncytial organism able to migrate laterally and vertically to reach for food resources.*

A modern analogue is the aggregation of amoeboid cells into a migratory slug phase in modern cellular slime molds during time of food starvation. While it remains uncertain whether the amoeboidlike organisms represent a failed experiment or a prelude to subsequent evolutionary innovations, they add to the

growing record of comparatively complex life forms that existed more than a billion years before animals emerged in the late Neoproterozoic.

Evidence for macroscopic life in the Paleoproterozoic Era comes from 1.8 billion-year-old (Ga) compression fossils, Stirling biota, and large colonial organisms exhibiting signs of coordinated growth from the 2.1-Ga Francevillian series, Gabon. Here we report on pyritized string-shaped structures from the Francevillian Basin.

The string-shaped structures are up to 6 mm across and extend up to 170 mm through the strata. Morphological and 3D tomographic reconstructions suggest that the producer may have been a multicellular or syncytial organism able to migrate laterally and vertically to reach food resources.

A possible modern analog is the aggregation of amoeboid cells into a migratory slug phase in cellular slime molds at times of starvation. This unique ecologic window established in an oxygenated, shallow-marine environment represents an exceptional record of the biosphere following the crucial changes that occurred in the atmosphere and ocean in the aftermath of the Great Oxidation Event.

Yoshikawa, G., et al (2019) **Medusavirus, a novel large DNA virus discovered from hot spring water.** JOURNAL OF VIROLOGY
doi.org/10.1128/JVI.02130-18

Authors' abstract: Recent discoveries of new large DNA viruses reveal high diversity in their morphologies, genetic repertoires, and replication strategies. Here, we report the novel features of Medusavirus, a large DNA virus newly isolated from hot spring water in Japan.

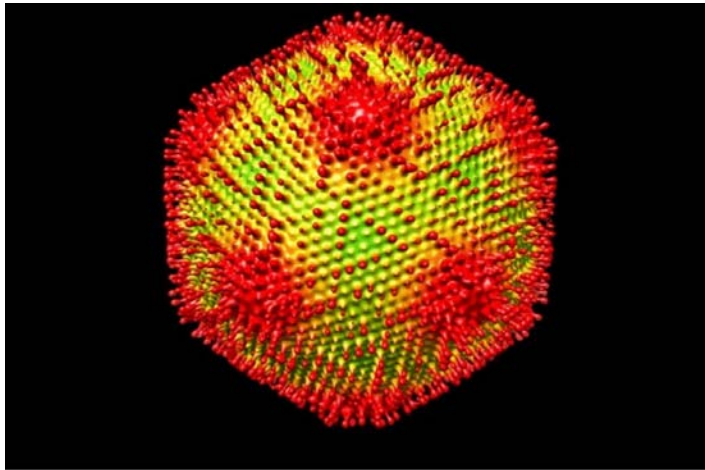
Medusavirus with a diameter of 260 nm shows a T=277 icosahedral capsid with unique spherical-headed spikes on its surface. It has a 381 kb genome encoding 461 putative proteins, 86 of which have their closest homologs in *Acanthamoeba castellanii*, whereas 279 (61%) are ORFans.

The virus lacking the genes of DNA topoisomerase II and RNA polymerase showed that the DNA replication takes place in the host nucleus while the progeny virions are assembled in the cytoplasm.

Furthermore, its laboratory host, *Acanthamoeba castellanii*, encodes many Medusavirus homologs in its genome including the major capsid protein, suggesting that the amoeba is the genuine natural host of this new virus from ancient times, and lateral gene transfers have occurred between the virus and amoeba repeatedly. These results suggest that Medusavirus is a unique NCLDV preserving ancient footprints of evolutionary interactions with its hosts, thus providing clues to elucidate the evolution of NCLDVs, eukaryotes, and viral-host interaction. Based on the dissimilarities with other known NCLDVs, we propose that Medusavirus forms a new viral family Medusaviridae

The ancient origin and unique features of these large DNA viruses prompted biologists to propose theories to interconnect viruses with major evolutionary transitions, such as the invention of the DNA replication machinery (possibly including the DNA itself) and the emergence of the eukaryotic nucleus

Medusavirus was isolated using *Acanthamoeba castellanii* as the laboratory host. Cytopathic effects, such as cell rounding of host cells due to viral infection, were observed 1 to 2 days post infection (PI). Eventually, the virus infection induced amoebae to undergo morphological changes similar to encystment in a subpopulation of amoeba cells as early as 2 days PI. On the other hand, other amoeba cells without encystment were lysed. This encystment-like phenomenon prompted us to name this virus “Medusa”, after a monster in ancient Greek mythology who turns onlookers to stone.



A 3D reconstruction of the Medusavirus particle showcases its thousands of external spikes, which protrude roughly 14 nanometres from the particle's surface. Credit: G.

Yoshikawa et al./J. Virol.

Speirs: The encystment mentioned is that the amoeba was turned into a spherical cell with a hard crust. That, plus the virus having a coating of spikes with bulbous heads, suggested the Greek myth.

Bar-Ona, Y.M., and R. Miloš (2019) **The global mass and average rate of rubisco.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:/cgi/doi/10.1073/pnas.1816654116

Authors' abstract: *Rubisco is often claimed to be the most abundant protein on Earth, yet the quantitative evidence to support the estimate of its global mass are scarce. Here we provide a robust and detailed estimate of the global mass of Rubisco, which is an order of magnitude larger than previous estimates. We use this estimate to derive the time-average rate of terrestrial and marine Rubisco and show that they are, respectively, 100-fold and sevenfold lower than the in vitro measured kcat of Rubisco at 25 °C.*

Photosynthetic carbon assimilation enables energy storage in the living world and produces most of the biomass in the biosphere. Rubisco (D-ribulose 1,5-bisphosphate carboxylase/oxygenase) is responsible for the vast majority of global carbon fixation and has been claimed to be the most abundant protein on Earth.

Here we provide an updated and rigorous estimate for the total mass of Rubisco on Earth, concluding it is ~0.7 Gt, more than an order of magnitude higher than previously thought. We find that >90% of Rubisco enzymes are found in the ~2 × 10¹⁴ m² of leaves of terrestrial plants, and that Rubisco accounts for ~3% of the total mass of leaves, which we estimate at ~30 Gt dry weight.

We use our estimate for the total mass of Rubisco to derive the effective time-averaged catalytic rate of Rubisco of ~0.03 s⁻¹ on land and ~0.6 s⁻¹ in the ocean. Compared with the maximal catalytic rate observed in vitro at 25 °C, the effective rate in the wild is ~100-fold slower on land and sevenfold slower in the ocean. The lower ambient temperature, and Rubisco not working at night, can explain most of the difference from laboratory conditions in the ocean but not on land, where quantification of many more factors on a global scale is needed.

Paterson, J.R., et al (2019) **Trilobite evolutionary rates constrain the duration of the Cambrian explosion.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 116:4394-4399

Authors' abstract: *Trilobites are often considered exemplary for understanding the Cambrian explosion of animal life, due to their unsurpassed diversity and abundance. These biomineralized arthropods appear abruptly in the fossil*

record with an established diversity, phylogenetic disparity, and provincialism at the beginning of Cambrian Series 2 (~521 Ma), suggesting a protracted but cryptic earlier history that possibly extends into the Precambrian.

However, recent analyses indicate elevated rates of phenotypic and genomic evolution for arthropods during the early Cambrian, thereby shortening the phylogenetic fuse. Furthermore, comparatively little research has been devoted to understanding the duration of the Cambrian explosion, after which normal Phanerozoic evolutionary rates were established.

We test these hypotheses by applying Bayesian tip-dating methods to a comprehensive dataset of Cambrian trilobites. We show that trilobites have a Cambrian origin, as supported by the trace fossil record and molecular clocks. Surprisingly, they exhibit constant evolutionary rates across the entire Cambrian, for all aspects of the preserved phenotype: discrete, meristic, and continuous morphological traits.

Our data therefore provide robust, quantitative evidence that by the time the typical Cambrian fossil record begins (~521 Ma), the Cambrian explosion had already largely concluded. This suggests that a modern-style marine biosphere had rapidly emerged during the latest Ediacaran and earliest Cambrian (~20 million years), followed by broad-scale evolutionary stasis throughout the remainder of the Cambrian.

De Meester, G., et al (2019) **Brain size, ecology and sociality: a reptilian perspective.** BIOLOGICAL JOURNAL OF THE LINNEAN SOCIETY 126:381-391

Authors' abstract: *It is often hypothesized that larger brains evolved to deal with environmental complexity, by means of enhanced cognition and behavioural flexibility. Decades of research have tried to relate relative brain size to either habitat or social complexity, but often with conflicting results. Which selective pressures favour larger brains and whether they act in the same way in different taxa is unclear, especially given that the majority of studies focused on either mammals or birds.*

We present the first large scale comparative study investigating the effect of habitat and social complexity on evolution of brain size in Squamata (lizards and snakes), using a dataset of 171 species. Our analyses confirmed earlier

findings that both the degree of limb reduction and the biogeographical origin of a species affect relative brain size and should be controlled for. Habitat complexity had no effect on brain size, and solitary species had larger brains than social species.

These results suggest that different selective forces might drive evolution of brain size in Squamata compared with other taxa. Future comparative studies should also consider using other, non-traditional, taxa. This will contribute to a more comprehensive understanding of how the vertebrate brain evolved.

Sprain, C.J., et al (2019) The eruptive tempo of Deccan volcanism in relation to the Cretaceous-Paleogene boundary. SCIENCE 363:866-870

[The Cretaceous-Paleogene boundary is defined by the extinction of dinosaurs. The Deccan Traps are flood lava deposits covering half of India and originally 2 km thick. ‘trap’ is a geological term for horizontal layers of extremely thick volcanic rock.]

Authors’ abstract: Late Cretaceous records of environmental change suggest that Deccan Traps volcanism contributed to the Cretaceous-Paleogene boundary (KPB) ecosystem crisis. However, testing this hypothesis requires identification of the KPB in the Deccan Traps.

We constrain the location of the KPB with high-precision argon-40/argon-39 data to be coincident with changes in the magmatic plumbing system. We also found that the Deccan Traps did not erupt in three discrete large pulses and that >90% of Deccan Traps volume erupted in <1 million years, with ~75% emplaced post-KPB.

Late Cretaceous records of climate change coincide temporally with the eruption of the smallest Deccan Traps phases, suggesting that either the release of climate-modifying gases is not directly related to eruptive volume or Deccan Traps volcanism was not the source of Late Cretaceous climate change.

Speirs: Geologists are trying to determine if the Chicxulub asteroid impact and the Deccan Traps were a one-two punch that caused the mass extinction. The problem is trying to accurately date both features, still not definitively done.

Hochmuth, K., and K. Gohl (2019) Seaward growth of Antarctic continental shelves since establishment of a continent-wide ice sheet: Patterns and mechanisms. PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOLOGY 520:44-54

Authors’ abstract: The location and setting of the continental shelf break along the Antarctic continental shelves influences the paleoceanographic circulation patterns as well as sedimentation and ice sheet dynamics. By evaluating the available multichannel seismic reflection data and drill core information, we mapped the base of progradational features associated with the first advances of grounded ice sheet to the outer shelf. The distance between the modern shelf edge and the pre-glacial shelf edge varies from >200 km (e.g. Ross Sea) to <6 km (e.g. Thurston Island, West Antarctica).

We identified multiple processes and mechanisms which influence the amount of shelf progradation during the establishment of a grounded ice sheet on the outer Antarctic shelves. The tectonic structure of the shelves proves to be a key factor by establishing the width of the shelf as well as local tectonics such as horst/graben and fault systems, which guide the ice stream flow and therefore the resulting sedimentation.

Unlike expected, the erosional potential of the hinterland seems to play a minor role in building progradational sequences, whereas fewer long-term grounding events on the shelf edge result in more continental shelf progradation than presumed from a more dynamic ice sheet.

By using these observed relationships to extrapolate the former shelf edge to unmapped regions around the Antarctic continent, we estimate an overall seaward growth of the continental shelves by 7% in area and 1.28×10^6 km of approximated sedimentary volume deposited along the shelf edge and upper slope.

Leplat, J., et al (2019) Aerobiological behavior of Paleolithic decorated caves: a comparative study of five caves in the Gard department (France). AEROBIOLOGIA 35:105-124

Authors’ abstract: The preservation of decorated caves is a great challenge that has been reinforced by the microbial crisis occurring at emblematic sites such as the Lascaux and Altamira caves. To date, little is known about the microbial

behavior of caves. One difficulty is that the term “cave” covers a wide variety of sites and structures. Past studies concentrated on caves with microbial disorders and were generally carried out in a time frame that was too short to gain an adequate picture of healthy microbial behaviors, the sine qua non of detecting potential imbalance.

The aim of this study was to determine whether models of aerobiological behavior could be identified in several decorated caves. We monitored aerial rates of fungi and bacteria in five decorated caves of the Gard department (France) for periods of 2 years or more. A model behavior was identified in each cave. These models were cave dependent and were also season dependent in some caves.

Following our fungal results, we suggest separating the caves into two groups. The caves which were strongly affected by the external environment throughout their entire length are the “non-self-purifying caves”. The caves which were only affected by external environment at the entrance are the “self-purifying caves”.

Blasi, D.E., et al (2019) Human sound systems are shaped by post-Neolithic changes in bite configuration. SCIENCE 363:eaav3218

Authors’ abstract: Our findings reveal that the transition from prehistoric foragers to contemporary societies has had an impact on the human speech apparatus, and therefore on our species’ main mode of communication and social differentiation: spoken language.

Human speech manifests itself in spectacular diversity, ranging from ubiquitous sounds such as “m” and “a” to the rare click consonants in some languages of southern Africa. This range is generally thought to have been fixed by biological constraints since at least the emergence of Homo sapiens.

At the same time, the abundance of each sound in the languages of the world is commonly taken to depend on how easy the sound is to produce, perceive, and learn. This dependency is also regarded as fixed at the species level.

Given this dependency, we expect that any change in the human apparatus for production, perception, or learning affects the probability, or even the range, of the sounds that languages have. Paleoanthropological evidence suggests that

the production apparatus has undergone a fundamental change of just this kind since the Neolithic.

Although humans generally start out with vertical and horizontal overlap in their bite configuration (overbite and overjet, respectively), masticatory exertion in the Paleolithic gave rise to an edge-to-edge bite after adolescence. Preservation of overbite and overjet began to persist long into adulthood only with the softer diets that started to become prevalent in the wake of agriculture and intensified food processing.

We hypothesize that this post-Neolithic decline of edge-to-edge bite enabled the innovation and spread of a new class of speech sounds that is now present in nearly half of the world’s languages: labiodentals, produced by positioning the lower lip against the upper teeth, such as in “f” or “v.”

Biomechanical models of the speech apparatus show that labiodentals incur about 30% less muscular effort in the overbite and overjet configuration than in the edge-to-edge bite configuration. This difference is not present in similar articulations that place the upper lip, instead of the teeth, against the lower lip (as in bilabial “m,” “w,” or “p”). Our models also show that the overbite and overjet configuration reduces the incidental tooth/lip distance in bilabial articulations to 24 to 70% of their original values, inviting accidental production of labiodentals.

The joint effect of a decrease in muscular effort and an increase in accidental production predicts a higher probability of labiodentals in the language of populations where overbite and overjet persist into adulthood. When the persistence of overbite and overjet in a population is approximated by the prevalence of agriculturally produced food, we find that societies described as hunter-gatherers indeed have, on average, only about one-fourth the number of labiodentals exhibited by food producing societies, after controlling for spatial and phylogenetic correlation.

When the persistence is approximated by the increase in food-processing technology over the history of one well researched language family, Indo-European, we likewise observe a steady increase of the reconstructed probability of labiodental sounds, from a median estimate of about 3% in the proto-language (6000 to 8000 years ago) to a presence of 76% in extant languages.

Ferreri, L., et al (2019) **Dopamine modulates the reward experiences elicited by music.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:3793-3798

Authors' abstract: *In everyday life humans regularly seek participation in highly complex and pleasurable experiences such as music listening, singing, or playing, that do not seem to have any specific survival advantage. The question addressed here is to what extent dopaminergic transmission plays a direct role in the reward experience (both motivational and hedonic) induced by music.*

We report that pharmacological manipulation of dopamine modulates musical responses in both positive and negative directions, thus showing that dopamine causally mediates musical reward experience.

Understanding how the brain translates a structured sequence of sounds, such as music, into a pleasant and rewarding experience is a fascinating question which may be crucial to better understand the processing of abstract rewards in humans. Previous neuroimaging findings point to a challenging role of the dopaminergic system in music-evoked pleasure. However, there is a lack of direct evidence showing that dopamine function is causally related to the pleasure we experience from music.

We addressed this problem through a double blind within-subject pharmacological design in which we directly manipulated dopaminergic synaptic availability while healthy participants (n = 27) were engaged in music listening. We orally administered to each participant a dopamine precursor (levodopa), a dopamine antagonist (risperidone), and a placebo (lactose) in three different sessions.

We demonstrate that levodopa and risperidone led to opposite effects in measures of musical pleasure and motivation, while the dopamine precursor levodopa, compared with placebo, increased the hedonic experience and music-related motivational responses, risperidone led to a reduction of both.

This study shows a causal role of dopamine in musical pleasure and indicates that dopaminergic transmission might play different or additive roles than the ones postulated in affective processing so far, particularly in abstract cognitive activities.

Young, M. (2019) **Ride-hailing's impact on Canadian cities: Now let's consider the long game.** CANADIAN GEOGRAPHER 63:171-175

Author's abstract: *A recent dialogue published in The Canadian Geographer on July 2, 2018, caught my attention. In it, the authors debate whether Uber and other ride-hailing services should be considered beneficial or detrimental to Canadian cities. [See OPUNTIA #432, page 27]*

While addressing several of the uncertainties and misunderstood impacts of ride-hailing services upon cities, their analysis fails to consider the long-term implications of this mode of travel on individual travel behaviour and on accessibility.

In this response to their piece, I draw attention to the short-sightedness of their arguments and to the equity concerns excluded from their dialogue. If legalized prematurely, as endorsed by Zwick and Spicer, ride-hailing services will rapidly become regarded as a convenient and essential service and once established as such, regulating them any further will prove to be politically prohibitive.

It remains unclear whether the arrival of ride-hailing is detrimental to congestion. Despite being slightly cheaper than taxis, ride-hailing services remain significantly more expensive than transit and provide mobility only to those who can afford them. The regulatory framework for ride-hailing should resemble that of the taxi industry, but should also be supplemented by concessions to encourage ride-hailing companies to explore sustainable endeavours.

Speirs: Not that I use them, but I think the author is incorrect when saying the services are politically immune. If there is a possibility of taxing something, the government will roll over any opposition. Already the Canada Revenue Agency has forced ride-hailing companies to divulge who is driving for them and is cleaning up on drivers who didn't declare their income.