OPUNTIA 456



Late September 2019

Opuntia is published by Dale Speirs, Calgary, Alberta. It is posted on www.efanzines.com and www.fanac.org. My e-mail address is: opuntia57@hotmail.com When sending me an emailed letter of comment, please include your name and town in the message.

MORE TRAVELS OUT ON THE FLATLANDS

photos by Dale Speirs

I made another trip to the flatlands northeast of Calgary on September 11 (see also OPUNTIA #450). After stopping in the village of Acme for a business errand, I looped the long way back to Calgary on secondary highways.

The cover photo was taken looking north from Highway 575 about 10 km east of Acme. The Angus steer in the foreground watched me with the greatest interest. Out there on the empty lands, I was probably the biggest excitement he'd had since the herd was moved out to the range.

After taking the cover photo, I turned to the left and photographed the scene below. You can see the old railroad track right-of-way, abandoned some time in the 1950s as good roads took over.

The rails were lifted but the bridge over a creek left in place. The inward fence (to the right) has obviously been left to decay as seen by cattle grazing along the track, while the outward fence has newer posts and the barbed wire maintained.

The flatlands are dissected by post-glacial meltwater channels that were fully flooded 8,000 years ago as the continental ice sheets melted. Today only small streams meander across the valley floors.







These photos were taken west of Acme as I looped back home on the highways. The harvest was late this year and was only just beginning in many fields.



Various views of the Rosebud River valley where Highway 791 crosses it. This section is in the upper part of the river headwaters and the stream is small enough that one could jump over it in places.

It is, however, much bigger and broader about 50 km downstream where it flows into the Red Deer River in the badlands. Along the way it collects all the drainage creeks from the flatlands and builds up into a respectable river.



This view of the Rosebud River valley, looking downstream to the east, shows the classical post-glacial meltwater valley. 8,000 years ago this valley was full.



THIS JUST IN

I'm not interested in gaming but a news story caught my eye which I traced back to its source at www.kotaku.com. On September 13, a truck carrying three pallets of 6-sided dice bound for the gaming company Trivium Studios in Atlanta, Georgia, lost its load on a turn.

Mike Fahey reported the accident under the brilliant title "Truck Carrying Gaming Dice Spills Onto Highway, Rolls A Perfect 756,000". Indeed. Interstate 75 was closed for several hours while the dice were scooped up with shovels.

A spokesman for Trivium was quoted as saying the good news was that the driver now held the world record for the largest dice roll ever. It was estimated that 216,000 dice were spilled onto the road. Assuming an average of 7 points per pair of dice, this would give a score of 756,000.

Decades ago I clipped a story, originally published in May 1993 in the newspaper TORONTO GLOBE AND MAIL, about a truck which rolled and spilled hundreds of kilos of live bait worms across an Ontario highway. Chaos ensued, if I may coin a phrase, as vehicles spun out trying to drive over the squishy creatures.

It's only funny if you weren't there at the time.

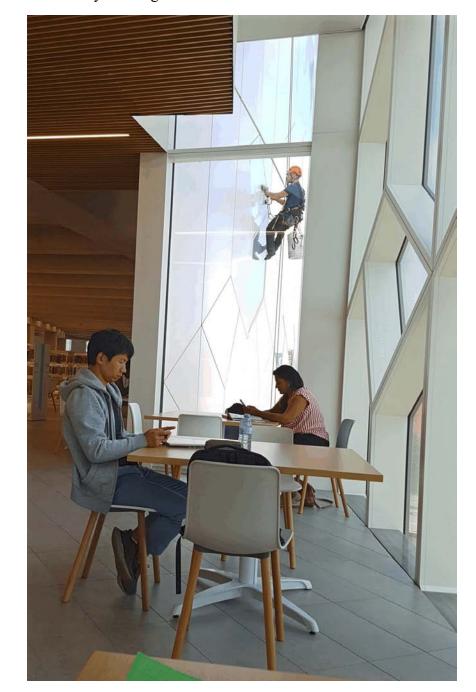
WHEN WORDS COLLIDE

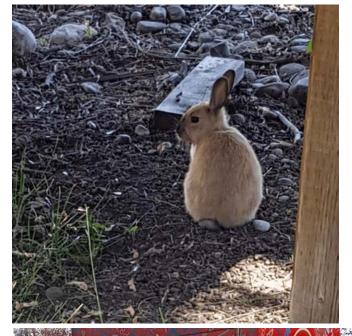
The tenth annual When Words Collide will return to the Delta South Marriott Hotel on the weekend of August 14 to 16, 2020. It will incorporate the Aurora Awards and Canvention 40. WWC always sells out by June, as do the banquet and hotel. Details from www.whenwordscollide.org

AROUND COWTOWN

photos by Dale Speirs

Herewith some of the photos I took during the summer with my smartphone camera. I was doing some research in the New Central Library when I saw this fellow busy washing windows.







Calgary has been a fflicted by domestic rabbits gone feral, either escaped or abandoned by pet owners.

Unlike native snowshoe hares which will not allow a human to get too close to them, these bunnies were unafraid.

They came up to me as I walked through the Erlton district west of the Stampede grounds.



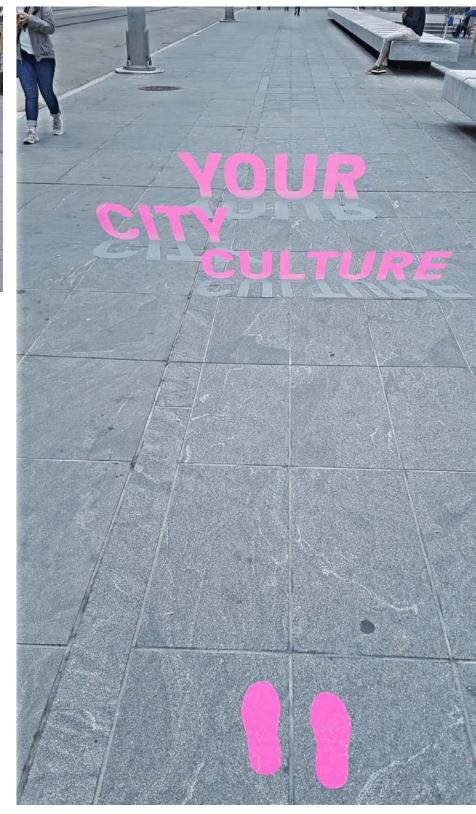
Below: Seen on 20 Street SW in the Altadore district. I checked the nameplates. One was a Ferrari and the other a Lamborghini. People live differently in rich neighbourhoods.







Sidewalk art in the downtown core. Approached from the side, they look like distorted letters flat on the concrete. However if standing on the painted footprints, the forced perspective makes the letters seem to stand up in 3-D. Clever.



ON THE CUTTING EDGE OF TECHNOLOGY: PART 5

by Dale Speirs

[Parts 1 to 4 appeared in OPUNTIAs #258, 346, 360, and 404.]

Like printing, the ability to record sounds and play them back in the distant future or the far side of the planet is one of the abilities that separates us from all other animals.

Factual.

DO NOT SELL AT ANY PRICE (2014) by Amanda Petrusich looks at an era long vanished in recorded music history, that of 78-rpm shellac disks. Vinyl has made a comeback in the last decade but 78-rpm disks are collector artifacts, to be copied once to mp3 and thereafter filed away. Just to play 78s requires special turntables because the grooves were much wider than vinyl and regular needles will not work.

Early on, Petrusich made a statement that is obvious yet profound: "Every last person alive right now came of age in the era of recorded sound, which makes it extraordinarily difficult for any of us to properly conceive of a time in which music was not a thing we could hear whenever we felt like it."

She also quoted Thomas Edison on a remark he made a century ago about recorded sound but which is very relevant today for the Internet: "It will teach us to be careful what we say." This is a truism given fresh life in the era of blog comments and tweets that have brought down many people. How the mighty are fallen.

The gramophone disk was patented by Emile Berliner in 1887. A wide variety of diameters were initially produced but by the late 1920s had become standardized at 10-inch disks spun at 78 revolutions per minute.

Few masters of those old disks survived. Like subsequent format changes, from vinyl to 8-track to cassette to compact disk to mp3, most people tossed their old records because there was no market for them at the time. 78s are therefore astonishingly rare today.

There are a few 78s collectors. Petrusich went to one of their conventions and found that she was only one of two women there. The rest were middle-aged

white men, and the other woman was a collector's wife. Even stamp shows do better than that; about one-quarter of philatelists are women.

The most valuable of the old 78s are those of early jazz performers. Petrusich mentions one collector who used the pseudonym Blind Joe Death as a vicious but accurate parody of 1920s jazz musicians. She described her encounters with many 78s collectors while doing research for this book. In physical description and behaviour, they could easily be mistaken for science fiction fans.

From there, Petrusich went on to the early history of recorded music. Many recording studios were offshoots of furniture manufacturers who made their money from building phonograph cabinets. She became a fanatic herself. Upon learning that there may have been a box of rare 78s accidently dropped into the Milwaukee River eighty years ago, she took a course in scuba diving and set off for Grafton, Wisconsin. It didn't go well.

An interesting and readable book about a little-known branch of musical history.

Old Time Comedy.

FIBBER MCGEE AND MOLLY was an old-time radio comedy that ran from 1935 to 1953 as a half-hour show before a live audience in its glory days. (This and hundreds of other OTR shows are available as free mp3s at www.otrrlibrary.org) The episodes were mostly written by Don Quinn. Fibber McGee and his wife Molly lived in Wistful Vista, state never specified, and did not seem to have gainful employment yet always had money to be doing things.

The series was sponsored by the Johnson Wax Company. The announcer of the show was Harlow Wilcox, who had bit parts within each episode but whose main duty was to barge into the plot at intervals and extol the merits of Johnson's floor wax and furniture polish. There were also musical numbers by an orchestra and by a vocal group The King's Men.

In old-time radio sitcoms such as this one, the middle commercial was integrated into the episode as part of the story, not as an interruption. Wilcox would cross paths with the McGees and tell them he was on his way to show a lonely housewife how to wax her linoleum, or have lunch with executives from the Johnson Wax Company. This gave him an opportunity to tell the McGees and the audience of the wonders of Johnson wax and polish.

"Gildy's Ladder" was a 1941 episode that began with an argument between Fibber and his neighbour Throckmorton P. Gildersleeve, who was on a ladder fixing a window screen. Fibber claimed the ladder was his, but not so, it belonged to Gildersleeve.

Molly demanded Fibber apologize, but that only generated a fresh fight. Since the two men couldn't get along in person, Fibber decided to use a service that few people today know about. He went to a storefront recording studio and recorded an apology on a disk, to be delivered to Gildersleeve by messenger.

That kind of service was used in the 1940s and 1950s to send personal messages by voice to distant family and friends. Each record was one of a kind. It was cheaper than long distance telephone calls, assuming the recipient had a telephone.

The recording studio manager let the McGees listen in on a few customers, all of whom were recurring characters in the series. The first was Harlow Wilcox, recording his last will and testament, and insisting that the heirs to his house ensure that everything was well polished with Johnson's Wax.

Then a recurring character called the Old Timer appeared, who said he was recording some hot jazz on tissue paper and comb. Next were The King's Men, who belted out a snappy song. The McGees also met Wallace Wimple, a henpecked husband who vented his anger at his wife on records he dared not play to her.

Fibber finally got a booth and recorded his apology, which the studio dispatched by messenger to Gildersleeve. The McGees returned home and awaited events. They got them alright, as Gildersleeve came storming over with the record and angrily broke it over Fibber's head. The studio had sent the wrong recording, from one of the other characters, and which Gildersleeve misinterpreted in the worst possible way.

Recorded Crime.

THE GREEN HORNET was an old-time radio series that aired from 1936 to 1952. Britt Reid was the masked man known as the Green Hornet, assisted by his faithful Filipino servant Kato, who drove his high-speed car called the Black Beauty.

The series was a spin-off from THE LONE RANGER but set two generations and four decades later. Reid was the grand-nephew of John Reid, the Lone Ranger.

"The Ghost Who Talked Too Much" was a 1939 episode written by Fran Striker and Fielden Farrington. It was about a racket operated by a spiritualist calling himself the Rajah and his partner, a stockbroker named Abbot. The latter had his secretary keep tabs on the obituary columns in newspapers. Wealthy widows would be invited to a free seance to contact their husbands in the next world.

The husband's voice was faked by a helper hiding behind a curtain and speaking through a megaphone. It always recommended that the widow put her inheritance in Abbot's care. He then sold her worthless shares, or never bought any at all but diverted her money, and/or put her on the wrong side of short selling and margin calls.

The police could do nothing because the Rajah never charged a fee; he made his money on commission from Abbot. Reid's reporters eventually figured it out, so in his capacity as the Green Hornet, he and Kato sneaked into the back of the Rajah's parlour. They sandbagged the helper, then recommended a legitimate broker. Abbot, who always attended the seances as an observer, was naturally miffed.

After the widow had gone, the two men fell out and had a loud and lengthy argument about the double-cross, spilling all the details in the progress of their fight. What they didn't know was that the Green Hornet recorded it all on a portable device. He then called police anonymously and left the record hidden in the studio where they could find it, the Rajah, and Abbot. Another fraud foiled, and the culprits condemned by their own voices on the record disk.

Really Oddball Stuff.

"Melted Melody" by James J. McEvilly (1897 November, THE BLACK CAT, available as a free pdf from www.archive.org) is one of those weird stories one wishes were true. A professor of archaeology discovered a cave where due to an unexplained freak of nature, sounds were recorded on slabs of ice. As the ice melted, the sounds were replayed. The problem, of course, was that the sounds could only be heard once.

Naturally no one would believe his story, so he hired an orchestra to play some tunes in the cavern onto freshly produced ice created by water dripping into the cave. He then took the slabs of ice to a meeting of learned minds, who listened to the orchestra playback as the ice melted.

The possibilities were endless. Hear a bawdy song as you gulped a whiskey on the rocks, or smooth classical music while enjoying after-dinner ices.

RICH GIFTS WAX POOR WHEN GIVERS PROVE UNKIND: PART 2 by Dale Speirs

[Part 1 appeared in OPUNTIA #392.]

Comedy Tonight.

HANCOCK'S HALF HOUR was a British radio series that aired in various forms between 1954 and 1959. The star was Tony Hancock, assisted by a variety of character actors. They generally used their real names as characters but their radio lives were much exaggerated.

Hancock had begun appearing in television in 1956 and was in a number of movies. He basically invented the British sitcom but time passed him by, not helped by his alcoholism. He committed suicide in 1968.

"The Waxwork", written by Ray Galton and Alan Simpson, aired in 1959 on the BBC Light Programme. Because the BBC is still marketing Hancock's work, only a few free mp3s are available online and this was not one of them. I heard this episode on CHQR Calgary, which plays old-time radio shows on Friday and Saturday evenings. (You can stream the station online.)

The episode opened with Hancock delighted to learn he was to be immortalized in wax at Madame Tussauds museum. He was disappointed that his friends weren't as enthused about the honour as he was. One of them, Bill Kerr, warned of the hazard that someone might use it as a voodoo doll.

No mind, however, off he went to pose, expecting to be portrayed as a handsome dashing man, as he saw himself. Hancock's ego was about the same

size as his body. It was a shock that the sculptor saw him for what he was, a short tubby middle-aged man. Nor was Hancock pleased to learn that his wax effigy would be in the Entertainment section instead of Great Men of History.

One of Hancock's friends, a spiv named Sid James, acted as his agent and demanded a percentage of the gate. Since the museum didn't pay for granting such an honour, the deal was off. James convinced Hancock they could make their own waxwork of him and set up a museum for him. This appealed to Hancock's vanity.

The waxwork was horrible, with little resemblance. Hancock went off in a huff. The huff vanished when James sold the waxwork to a cinema and gave Hancock £20 as his share, say about \$500 in today's currency. The huff quickly returned when Hancock learned that the waxwork was advertising a monster movie. His indignation further increased when he began suffering stabbing pains in his legs and body. Someone was sticking pins into the waxwork.

Tragedy Tomorrow.

The old-time radio series BOSTON BLACKIE aired from 1944 to 1950. These and hundreds of other OTR shows are available as free mp3s at www.otrrlibrary.org There were also movies and books. Blackie was not a detective, private or police, but was always barging into crime investigations.

Boston Blackie, real name Horatio Black, was a former jewel thief. He now lived the life of a supposedly honest citizen, although his source of income was never specified. He lived well in a nice apartment, squired a girlfriend named Mary Wesley about town, and always had time to interfere in the casebook of NYPD Inspector Faraday.

In the early part of the series, Faraday was constantly trying to run Blackie in for murder. He leaped to unsupported conclusions so often that one wonders how he made it past the rank of foot patrolman. It didn't help that Blackie kept turning up like a bad penny and razzing Faraday about his incompetence.

That act grew old quickly, so in the later part of the series Faraday no longer automatically tried to arrest Blackie but grudgingly accepted his help. There was a lot of verbal sniping between them but they moderated into friends. Faraday had the funnier quips.

"Blackie's Body In Wax" was a 1947 episode, no writer credited. It began with a bad practical joke when a sculptor named Percy Wayne had a coffin delivered to Mary Wesley's apartment. It contained a wax effigy of Blackie. Wayne wanted some publicity for his waxworks museum.

He also sent Faraday a waxwork. While flattered, Faraday was more concerned about news that an out-of-town gangster was relocating to the city. So were the city mobsters. No one knew what he looked like, save Wayne, who created a waxwork for his famous criminals display.

The characters orbited around the museum, each with their own agenda. Everyone was gunning for everybody else, and not just figuratively. They all had the same idea of substituting humans, living or dead, for their waxwork equivalents. There was more traffic in the museum than out on the freeway. A well-plotted story that tied up nicely.

"The Devil's Workshop", written by John Roeburt, was a 1949 episode of the old-time radio series INNER SANCTUM. It was about a wax figure sculptor named Tony, who created human figures for museums. He was perturbed because his figure of the Devil kept moving around the studio. Then it disappeared completely.

A scarred man arrived and asked Tony to make a face for him. All he had left was exposed bone and some flesh strips around his mouth. Since Tony was a handsome man, he wanted the face to be like his. The scarred man used his new face to steal Tony's girlfriend Tina. Tony fancied that she was looking more and more like his figure of Bloody Mary.

The scarred man married Tina. Tony decided to steal back his face by melting it off the man. Instead he started a fire that killed the man and Tina. Or did he? The police found only the melted remains of the Devil and Bloody Mary. No murder but perhaps an order of committal to an institution for Tony. There's something about wax figures that breeds insanity.

"The New Exhibit" was a 1963 episode, written by Charles Beaumont, of the television series THE TWILIGHT ZONE. It was from the fourth season, something worth commenting on because the first three seasons were half-hour episodes that moved briskly, while this and the other Season 4 episodes were one-hour episodes that were not properly paced.

They dragged and were obviously padded out with mood pieces. The fifth and final season reverted back to half-hour episodes.

Be that as it may, this episode was about the closing of the Ferguson Wax Museum where Martin Lombard Senescu had been curator for three decades. The museum was experiencing difficult times, as the modern generation was blase about waxworks.

Senescu was obsessed with the wax figures. He convinced the owner to let him bring home some of them for temporary safekeeping, such as Jack the Ripper and assorted other murderers. He stored them in the basement, bought an air conditioner to keep them from melting in the summer heat, and ran up the electricity bill because it had to run continuously.

His wife Emma was beside herself with worry because the bank account was rapidly dwindling. Senescu showed no inclination to find work, preferring to stay in the basement, primp the waxworks, and talk to them as if they were real people. Emma went for help to her brother Dave, who loaned her money.

Dave strongly advised her to be firm with her husband and jolt him out of his obsession by turning off the air conditioner and let the waxworks melt in the summer heat. She sneaked downstairs and was in the process of turning it off when one of the wax figures came to life and killed her.

Senescu was upset of course but quickly shrugged off the matter. He buried her in the basement and tried to carry on. Dave came by to talk to his sister and got a runaround. He therefore circled back after leaving the house and let himself in through a basement window. As a result, he did not long outlive his sister.

Ferguson arrived to tell Senescu what he thought was good news. He had found a buyer for the waxworks in Belgium, and the ones in the basement would soon be shipped out. To no viewer's surprise, he became the third victim of the waxwork figures.

Senescu had enough, and sternly lectured the waxworks that they were going. They all came to life at once and encircled him. Jump-cut to the Belgian museum, where a guide took them through the Murderers' Row section. The Ferguson mannequins were there, as was one of Senescu, shown in the tableaux burying his wife in the basement. There was something very lifelike about his eyes.

A good episode, but it would have been better as a half-hour episode. The emphasis of this episode was on the concept and ideas, not mood and characterization. The pacing was too slow, since the plot could be guessed five minutes before it got there.

Nothing Portentous Or Polite.

"The Father Of His Country" by Frank E. Chase (1901 January, THE BLACK CAT, available as a free pdf from www.archive.org) is about Professor Todhunter's Great Moral Wax Works. Set in the 1850s, it was about said Todhunter moving his family and waxworks museum out west to California.

As they crossed the plains, they saw a group of hostile aboriginals preparing to attack them. The Professor and his outnumbered party circled their three wagons and then set up as many waxworks as they could. Laying low on the ground they fired at the warriors, while the latter shot at the waxworks, never having had experience with them.

It baffled the natives to see the white folk still standing despite being perforated by arrows. Then it terrified them when they realized these were people who did not die. They left in a panic.

The Professor and his family made it to California, where he set up his museum. He left the arrows in the waxworks to make a greater impression on the audience when he told the tale.

FOOD COZIES: PART 12

by Dale Speirs

[Parts 1 to 10 appeared in OPUNTIAs #432, 433, 434, 436, 438, 441, 442, 444, 447, 450, and 454.]

Food cozies 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. Recipes are generally included, if not at the back of the book, then in between chapters or sometimes integrated into the text. Don't read these books if you have an appetite. I have learned from experience to read these novels on a full stomach.

Fruits And Berries.

CHERRY PIES AND DEADLY LIES (2018) by Darci Hannah was the first novel in a food cozy series about Whitney Bloom. Born and raised in Cherry Cove, Wisconsin, which was as small of a village as its name suggested, she had gone to the big city to seek her fortune.

Her career as an advertising executive ended in disaster with an ad campaign that bankrupted her client and cost the agency \$10 million in lost revenues. Her fallback position was to open an online store Bloom 'n' Cherries! which sold only cherry pies. Even for the Internet this seemed an overly specialized business, but cozies have never been noted for their economic sense.

Bloom got a telephone call from her mother back in Cherry Cove. The annual Cherry Blossom Festival had just begun under a cloud. Jeb Carlson, the manager of the Bloom family orchard, had been murdered, and Bloom's father was the prime suspect. That brought Bloom back to the family farm in a hurry.

The Deppity Dawg, and Cherry Cove could only afford one, was a high school classmate of Bloom's, a man she had not gotten along with then or now. Needless to say, he did not appreciate a Miss Marple showing up in the village and stomping all over his territory.

If there was a clue not related to cherries, it wasn't for lack of trying by the author. A handful of cherry pits had been deliberately dropped by Carlson's body. The possibility that someone had synthesized cyanide from the pits was discussed at length. Notwithstanding that, the culprit was a wanna-be drug lord who had been corrupting and organizing local teens into a gang, using the orchard as a meeting place.

The final set-up was Bloom's decision to stay in the village permanently and help the family orchard survive. All very well for her, but we know what will happen to the village's crime rate.

DYING FOR STRAWBERRIES (2016) by Sharon Farrow (pseudonym of Sharon Pisacreta) was the first novel in a cozy series about Marlee Jacob, proprietor of The Berry Basket in the lakeshore village of Oriole Point, Michigan. She fled big-city life for the simple life in a rural area. Her store's merchandise included fresh fruit, strawberry muffins, smoothies, jam, and, an item I hope never to taste, blueberry salsa.

The village fete, Strawberry Moon Bash, would soon be here. Jacob had a booth at the fete and rushed about getting it ready for the event. There was never just one thing, though. Her friend Natasha Bowman was a Russian mail order bride in an abusive marriage, who disappeared shortly after their latest fight. Natasha's husband Cole had an anger management problem with everyone he met.

A competitor was trying to force Jacob out of business the nasty way. Slander and libel flowed through the village like rain down a street gutter. Plus, someone tried to murder Jacob, let's not omit that.

The uproar expanded. A real estate developer bought a large tract of land next to the village for a shopping mall that would usurp the local businesses. Cole was the chairman of the development corporation, and intended to have his revenge on the townsfolk. He never got the chance, and departed this world in Chapter 8.

Jacob was an inept Miss Marple. Her own family were not without sin, and her past haunted her. She was not alone, as most of the villagers had something to hide. Natasha, however, came out of hiding, complete with her own soap opera subplot.

Strangely, business was booming at The Berry Basket. In between sleuthing, or being on the defensive from enemies and police, Jacob managed to rake in the money. By her statement, she was selling \$900 gross in The Berry Basket before her morning coffee break. For a big-city kiosk that would be very good, and for a village shop it was sensational

She also got time in to discover the second body. Annoyingly, the victim was not 100% dead, and barely managed to survive. The murderer was someone from out of nowhere, a bit player mostly absent from the story. Not a good ending.

The second installment in the series was better. BLACKBERRY BURIAL (2017) happened during the July festive season. Oriole Point was hosting its annual combination road rally and scavenger hunt, the Blackberry Art School was celebrating its centennial, and there was a big parade to start things off.

Marlee Jacob inspected the farm where the road rally was to begin and naturally found a corpse. A skeleton, possibly that of an art school student who went

missing twenty years ago, before her time in the village. Even the Deppity Dawgs were going to have trouble pinning that one on her.

She had her own problems though. Lots of tourists were expected for the long weekend. Her store, like all the other merchants, was expecting big sales to the holiday crowds. Busy, busy, busy. Nonetheless, she managed to squeeze in some sleuthing. After twenty years, any investigation was historical research, digging out melodramas that various people preferred to remain forgotten.

One person who especially wanted the past to stay forgotten was the murderer, who still lived in town. The road rally in which both he and Jacob were entered was particularly exciting. It is not unknown for rally cars to crash, so he tried to run her off the road and bash in her skull. Sadly for him, she was a better driver and lived to tell the tale, as indeed she had to if this cozy series was to continue.

They grow peaches south of the Mason-Dixon line, hence a series of cozies written by Susan Furlong. Her first novel was PEACHES AND SCREAM (2015), which set the stage for Nola Mae Harper to return to her home village of Cays Mill, Georgia, and take over management of the family peach orchard.

It wasn't peaches and cream after Chapter 2, when Harper found a body in her orchard. Ben Wakefield, a sharp practice businessman, had been strangled with her sister's scarf. As her sister was due to give birth any moment, suspicion settled on the husband.

All kinds of drama followed, not excluding the Harper family. In between the Marpleing to prove her brother-in-law innocent, Harper decided to boost the orchard income by going retail and selling peach preserves. It wasn't as easy as she thought, beginning with hours in a steamy kitchen boiling and canning peaches.

Visions of a financial empire danced in her head. Today Peach Preserves, tomorrow Peach Chutney, Peach Candy, and Spiced Pickled Peaches. If you can it, they will come. It was mentioned in passing that her father had supplied peaches to a local moonshiner for the production of distinctively flavoured moonshine. Harper didn't pick up on that for some reason.

Her first adventure in retailing was a booth at the Peach Harvest Festival. The feature attraction was the world's largest peach cobbler, 12 feet by 6 feet,

cooked each year by the ladies of the Mount Zion Baptist Church out in their parking lot using a giant brick oven. As Harper noted: *In these parts, the Baptists were known for making the best cobbler around.* Say Amen!, brothers and sisters.

The murderer had killed Wakefield after he commenced a divorce action. Not much else to explain, so it was on to the recipes appendix. Leading off was the Baptist Church Ladies Society Peach Cobbler. The recipe only called for 8 to 10 peaches, so presumably it wasn't the supersized version.

The sequel in the series was REST IN PEACH (2016), which now had Nola Mae Harper operating her own store in the village, the Peachy Keen fruit and preserves shop. The annual Peach Cotillion was nigh, and Harper volunteered to stage the dinner.

The social dynamics of the organizing committee made those politically correct American science fiction conventions look like beacons of tolerance by comparison. Competition between debutantes and stage mothers was vicious. Not just figuratively, as Vivien Crenshaw, mother of the reigning Peach Queen, was stabbed to death.

Harper's friend Ginny Wiggins, who operated a diner next door to Peachy Keen, was a suspect because she had been at odds with Crenshaw over a cotillion gown for their daughters.

Harper managed to get in some sleuthing when not rehearsing the cotillion or serving Peach Cobbler Cupcakes (recipe in the appendix) to all and sundry. That seemed better than another dish she served, the Peach Salsa And Melted Brie (recipe mercifully not in the appendix).

The back stories were a mixture of family secrets and feuds, lightly flavoured with blackmail and sabotage. Harper survived the usual gunpoint confrontation with the killer. Onwards to the appendix, with recipes for Peachy Pecan Salad, washed down with non-alcoholic Sparkling Peach Cotillion Punch.

The series continued with WAR AND PEACH (2017), a barnburner of a story about the mayoralty election for Cays Mill. Farmer Clem Rogers said he was about to expose a scandal involving his opponent, innkeeper Margie Price. Before he could reveal the secret, his barn burned down with him in it. Nola Mae Harper put in some time Marpleing to help clear Price's name.

Meanwhile, back at the Peachy Keen shop, business was indeed peachy keen. Fruit preserve baskets were selling well, such as the Son Of A Peach collection of jams, jellies, and sauces, or the Hot Jam! basket of spicier peach preserves. The Scared Pitless basket held jars of Peach Pepper Marinade, Peach Chutney, and Peach BBQ Sauce. The reader can only conclude that some peach growers have too much time on their hands.

Price's remaining opponent in the election was Jack Snyder, cousin of the Deppity Dawg. The two of them together could cause some serious problems for their enemies.

Harper learned that she was developing a reputation. When she made a passing remark that Cays Mill was a boring village, a friend replied sarcastically: "Three murders in eighteen months is so boring. Oh, and arson. But you're right, nothing ever happens here."

The plot began zigzagging like a drunk driver, throwing forth family soap operas and electioneering as motives. The killer was involved in a theft ring which Rogers discovered and paid for with his life. Ginny Wiggins, who barely escaped incarceration in the previous novel, appeared in the recipes appendix with Perfect Peach Cake.

BERRIED SECRETS (2015) by Peg Cochran was the first novel in a cozy series about Monica Albertson, who arrived in Cranberry Cove, on the eastern shore of Lake Michigan, to help her half-brother Jeff on the family farm. He had just returned from service in Afghanistan, having been seriously wounded. In his absence, Sam Culbert had been running the farm while Jeff was away.

Sassamanash Farm, as it was called, after the Algonquin word for cranberry, was in financial trouble no thanks to Culbert. It had a small store for farm gate sales, run by a sullen and incompetent Darlene Polk. Monica was upgrading the quality of the store, not without resistance from Polk. Jeff's mother Gina, who was Monica's stepmother, was not friendly to her either.

Monica audited the books for Jeff and found out why the farm was losing money. Culbert had been embezzling thousands. He never got a speaking part, for when the cranberry harvest began shortly thereafter, his body was floating in the bogs. Jeff was the obvious suspect.

The murder did boost business at the farm store. Monica was kept busy baking muffins and scones, and whipping up batches of cranberry salsa. Gina was beside herself worrying about her son. The two women put aside their differences and went Marpleing together.

Culbert's past history was that of associating with the wrong kind of people and getting involved in shady practice. Polk was discovered to be his daughter who had been abandoned out of wedlock. Revenge, like cranberries, is a dish best served cold.

Since Monica's cranberry salsa was a bestseller at the farm store and mentioned several times, it seemed strange it was not in the recipes appendix. Instead there were Cranberry Coffee Cake, Cranberry Butterscotch Bars, and Cranberry Banana Bread.

The sequel was BERRY THE HATCHET (2016). Cranberry Cove was anticipating its first annual Winter Walk, yet another event to bring in tourists and thereby fill the village merchants' coffers. Monica Albertson was frantically baking cranberry everything.

Both the tourists and the villagers got more than expected at the opening ceremony when Mayor Preston Crowley arrived in a sleigh with a knife sticking out of his neck. Both Monica's mother Nancy (the first Mrs Albertson) and Gina (the second Mrs Albertson) were suspects because both had been dating Crowley unbeknownst to each other. The defunct certainly had a busy life.

Once more into the breach, as Monica had double reason to investigate the case. She soon turned up a plethora of suspects, in between pushing sales of cranberry salsa, which was wildly popular in the village. Many merchants and contractors had run-ins with the defunct, who unlike the salsa wasn't wildly popular.

But it wasn't his fault, at least not directly. He had been cheated in a transaction by a woman whose family history was complicated enough that police in several jurisdictions had files on them. She killed Crowley to keep him from exposing the fraud.

The recipes appendix finally included Cranberry Salsa, which was regular salsa mixed with cranberries. It was difficult from reading this recipe to understand why the villagers enjoyed it so much. There must be something in the air coming off the lake.

Also found were Cranberry And Orange Salad and Cranberry Balsamic Pork Chops.

DEAD AND BERRIED (2017) was the third novel in the series. It was now June, at least six months since the last murder, but we all knew the lull wouldn't last. The cranberry salsa was selling like hotcakes, if you'll pardon the simile, and Monica Albertson had a lead on sales to chain stores.

The bogs were in full bloom, so local beekeeper Rick Taylor and his not-so-charming assistant Lori Wenk brought in bees to pollinate the flowers. Taylor's wife Nora was working part-time in the farm store. Wenk didn't survive past the second chapter.

Ostensibly she appeared to have been stung to death but that was suspicious because she wasn't wearing any beekeeper clothes. The medical examiner found a needle mark and determined that ricin had been injected.

Monica and her stepmother Gina were perturbed when Arline Loomis appeared, a new Miss Marple. Pity the village that has three Miss Marples. Given how many times Monica and Gina had snooped through other people's property, it was hilarious when Chapter 12 opened thusly:

"What a nosy thing she is", Gina declared when Monica told her about Arline finding the pregnancy kit in Lori's wastebasket. They were sitting in a booth at the diner having a cup of coffee and sharing a piece of blueberry pie.

Gina stabbed her fork in the air for emphasis. "I mean, I can see glancing into the trash and noticing that the kit had been tossed in there, but she had to have gone digging for the test strip." Gina shuddered. "Imagine! Amongst all those used tissues and whatnot."

It turned out that Loomis was not the Marple but the murderer, who had been running a scam. She tried to dispose of her competitors out on the lake, to no avail. She didn't realize that Monica and Gina were booked for the series, while she was only a guest actor.

For better avail, try the Cranberry Cobbler in the recipes appendix, which also included Cranberry Walnut Chocolate Chunk Cookies and Dried Cranberries And Walnuts Quinoa.

TOWN IN A BLUEBERRY JAM (2010) by B.B. Haywood (pseudonym of Robert R. and Beth Ann Feeman) was the first novel in a cozy series set in the seaside village of Cape Willington, Maine. No sign of Jessica Fletcher but the resident Miss Marple was Candy Holliday, who lived with her father Henry 'Doc' Holliday on their farm Blueberry Acres.

The series got off to a flying start when Jock Larson, a local playboy, took a dive off a cliff. There were considerable doubts as to whether he jumped or was pushed. Following on, the Blueberry Festival Queen, a woman of a certain age named Sapphire Vine, was done in by a blunt instrument. Larson was to have been the Festival parade marshal, so the event was off to a shaky start. We never have this sort of trouble at the Calgary Stampede.

A friend of the Hollidays was a suspect, so both father and daughter leaped into the sleuthing business. They were hampered because they had a booth at the festival and had to operate it. Their blueberry pies went quickly at \$12 each, and they expected to sell out of chocolate-covered blueberries by noon.

Nonetheless they got in their detecting and uncovered a plethora of blackmail, sharp practice, and just plain fooling around. The denouement was a fight to the death with the murderer on a widow's walk at the local opera house.

And so to the recipes appendix, blueberry everything. The recipe for Bavarian Blueberry Pretzels was good for, and I quote, *16 wunderbar pretzels*. More conventional were Blueberry Lemon Shortbread and Blueberry Gingerbread.

TOWN IN A LOBSTER STEW (2011) was the sequel. Cape Willington, much like Calgary, had weekend festivals all summer long. This time around it was the Lobster Stew Cook-off.

An elderly woman named Wilma Mae Wendell asked Candy Holliday to find out who stole a lobster recipe from her, one that had won her the Cook-off for six years in a row. The recipe involved cinnamon, so anyone who possessed a bottle of the stuff was a suspect.

Since this novel was written in the era of cellphone cameras, I had to wonder why the thief didn't just photograph the recipe, put it back, and sneak away with Wendell none the wiser. Cozies were late, and in many series still are, in adapting modern technology to their plots. But that is another diatribe for another day.

Holliday began sleuthing, starting with blackmail files she had 'inherited' from Sapphire Vine while investigating that murder in the first novel. It helped jump-start the background details, particularly those of village busybody Wanda Boyle. A second spark to the plot was the discovery of a body in Wendell's basement.

The Cook-off wasn't quite as nasty, but not by much, only in the sense that no one was poisoned at the tastings. Recipe theft accusations flew about, and the judging results were tampered with. One of the contestants was murdered a few days later, but nothing to do with the Cook-off.

It all came down to sharp practice. A murderer was sent up the river but in the last few pages an ominous foreboding was set up, suggesting he had not acted alone. The novel wrapped up with four lobster recipes, none of which used cinnamon.

TOWN IN A STRAWBERRY SWIRL (2014) began as the first annual Strawberry Fair was about to kick off, when berry farmer Miles Crawford was kicked off this life. He was murdered on his farm. The body was first found by real estate agent Lydia St. Graves, who panicked and ran. She was involved with Crawford in a possible land deal about which certain aspects gave her a guilty conscience.

Doc Holliday was the second person to find the body after she had raced out of the farm. He reported it to the police. The blunt instrument that killed Crawford was a shovel from Blueberry Acres, marked 'BA' on the handle as was Doc's standard practice. Candy did some Marpleing and traced who had borrowed it, none other than St Graves.

The possible sale of the Crawford farm, with the implication that it would be developed, stirred up the Cape Willington Heritage Protection League. This organization consisted of five old biddies with too much time on their hands. In between talk of strawberries and/or shortcakes, for the fair was soon upon the villagers, Candy did some investigating.

St. Graves was found dead in an apparent car accident but her injuries were minor and should not have killed her. The post-mortem revealed she had been poisoned. There were many family connections between Crawford and the people trying to buy the farm.

The genealogy was tangled, and it would take an experienced Mormon to sort them out. Everyone seemed related to everyone else, the double first cousin once removed type of family, or I'm my own grandpa.

Other complications were a search for buried treasure (gold and silver coins) on the Crawford farm and some old land titles that might invalidate half the deeds in Cape Willington. Candy's confrontation with the killer, who had served hemlock soup to St Graves, worked out as expected.

After all that, one thread was deliberately left hanging loose for a future novel, the title deeds. The recipes appendix began with Obstkuchen (German strawberry torte), Strawberry Apple Pancakes, Strawberry Pasta (I'll skip that one), and Key Lime Strawberry Pie.

TOWN IN A CINNAMON TOAST (2016) had Candy Holliday serving as maid of honour to friends, both the bride and groom who operated a restaurant. Her ability as a murder magnet remained unchallenged. Those land title deeds appeared in the narrative as well.

The immediate kerfluffle was the murder of the best man Julius Seabury. Candy found his body, it almost goes without saying. His head was bashed in with a champagne bottle, a special label ordered in for the wedding. He was killed in the town archives while researching the title deeds.

Although novel was basically independent of previous installments, it will be obvious to the reader that the deeds were the focal point. If they came into possession of one particular family, they could usurp the lands of most of Cape Willington.

Candy was busy not so much with Marpleing but with genealogy, in between helping with the wedding. The grand finale was a three-way gunfight between claimants to the deeds. The last laugh was on them, for another claimant who had them decided to resolve the problem once and for all by burning them. Well done, that man.

On to the wedding, celebrated with recipes for Orange Wedding Cake, Cinnamon Toast, and Chocolate Cake With Blueberry Frosting.

TOWN IN A MAPLE MADNESS (2017) was another festival mystery. Spring had sprung and so had the Maple Madness Weekend. Events included sugar

house tours, marshmallow roasts, pancake breakfasts, and maple-everything on all the local restaurant menus. Since Candy Holliday was roaming about, unscheduled events included the theft of sap from newly-tapped sugar maples and the murder of a local landscaper.

The murder caused panic amongst the festival organizers. Those behind cried "Forward! Let the Festival begin!" and those in front cried "Back! Cancel it because somebody got killed!" It was like that. Too much money was at stake for too many small businesses, especially the restaurants. The show must go on.

Menus around town included Chocolate Maple Brownies, Maple Glazed Sausages, Maple Burgers, Maple Glazed Onion Rings, Maple Bacon Pizza, Maple Mashed Potatoes, well you get the idea. If it was food, and maple syrup could be poured on it, there it was.

Holliday did her sleuthing, blueberries not being in season and therefore giving her lots of free time on the farm. After digging up the usual melodramas, it transpired the deceased was the sap thief. He was eliminated by an orchardist who didn't need the police. The recipes appendix was so obvious as to need no comment.

Cooking Schools.

IF FRIED CHICKEN COULD FLY (2012) by Paige Shelton was the first novel in a food cozy series. It was set in Broken Rope, Missouri, where Isabelle 'Betts' Winston and her grandmother Missouri Anna Winston operated Gram's Country Cooking School. As the novel opened, the cooking school was preparing its students for the Southern Missouri Showdown cook-off. It would never be as simple as that, elsewise there wouldn't be a novel.

The body of Everett Morningside was found in the school supply room. He had been murdered but no one knew why he was there. Gram had a dinner date with him the next night, which caused the widow to accuse her of murder. Yes, Gram was dating a married man.

Betts's main worry was whether the school would shut down but fortunately they only lost a day. There were 15 full-time day students and 4 night-class students. It would have been unfair to deny them the opportunity to compete in the cook-off just because someone got himself murdered.

Notwithstanding that, Betts had to go Marpleing to clear her grandmother's name. There were many back stories, some reaching a century past and bringing up ghosts. Al old boyfriend of Betts chose that time to barge back into her life. It transpired that Morningside had been looking for buried treasure and so was the murderer, who resented the competition.

The cook-off was a humdinger. Shots were fired and all that, but fortunately the death toll didn't rise further. The recipes appendix began with Fried Chicken, then Fake Fried Chicken (baked). For dessert, Champagne Cookies (don't eat and drive) and Red Velvet Cupcakes.

IF MASHED POTATOES COULD DANCE (2012) carried on the mayhem. The school had a last-minute request to accommodate some foodies for the night and provide a few cooking lessons. What should have been taught by the school were self-defense lessons. One of the tourists made it as far as Chapter 4, when he was found with a noose around his neck. Two other tourists disappeared and the game was afoot.

Winston was plagued by Old West ghosts, but that didn't stop her from Marpleing. With hardly any time to cook, she got herself trapped by a traveling gang of multitaskers. Blackmail, credit card fraud, computer hacking, and, lest it be forgotten, murder. It all ended reasonably well, for Winston at least. In the appendix were lots of potato recipes. Mashed, casserole, stuffed, pie, and skillet. What, no French fries?

IF BREAD COULD RISE TO THE OCCASION (2013) began with a fresh crop of students arriving for the forthcoming classes. One of them, Roger Riggins, never got a chance to stir a pot. His body was found in front of the school, done in by poison.

For a cooking school, this was a serious matter. A gunshot or stabbing would have been okay, for the school that is, not poor Riggins. The Winstons began Marpleing. The classes went on, while the Winstons tried to sort out the sheep from the goats among their students.

The village once had a commercial bakery that sold nation-wide but which went out of business due to bigger competitors. The staff had some family feuds that carried down the decades to the present after the bakery closed. Ghosts from the past made certain the matter would be settled once and for all, and damn the bread dough.

The recipes appendix will fatten up the reader in a hurry. The menu included Bread Pudding, Banana Bread, Blueberry Orange Muffins, and Pear Breads. Calories? What about them?

IF CATFISH HAD NINE LIVES (2014) brought ghosts to Broken Rope during the spring break of the Country Cooking School. A cowboy poetry convention was happening, so Betts Winston and Gram attended as volunteers offering lessons on how to fry catfish over a campfire.

Other events included a staged gunfight which wasn't as staged as it should have been. A man was shot to death in Chapter 1 and Bett's brother Teddy was a suspect. Her Marpleing was plagued by Old West ghosts. She also had to keep breaking away for the fish fry demonstrations and teach cowboy poets how to fillet and bread a catfish.

The big excitement was when a cottonmouth snake showed up to sample the fish. Grown men screamed like heroines in a 1950s B-movie, and there were many alarums and excursions around the campfire. The Deppity Dawg proved his worth by using a shotgun and a shovel on the snake. As the fish fry resumed, so did the sleuthing.

The killer had actually been aiming at someone else, as she explained in great detail to Winston and many others. It all had to do with family history and attempted blackmail. From there to the recipes, none of which had fish in them. Peach Cobbler, Apple Crisp, Beef Pot Roast, Cowboy Stew, and the like. Eat hearty!

IF ONIONS COULD SPRING LEEKS (2015) carried on the saga. It was summer at the height of the tourist season, so the Country Cooking School was offering part-time evening classes to outlanders. In a masterpiece of understatement, Betts Winston remarked: *The school year had been unusual and punctuated by murder and danger, but then ultimately successful, turning out some stunning cooks and bakers*.

The murder victim, and you already know who found the body, was a man of many parts and ex-wives (five of them). Cooking classes went on, including a chapter where everyone discussed Green Bean Casserole. The crunchy onions on top made the difference, which explained the infodump on how ancient Egyptians used onions. All knowledge is contained in food cozies.

Cooking, cowboy ghosts, and snooping for clues filled the subsequent pages. The dead man's five ex-wives had compiled a blackmail scheme, of which the murderer wanted to clear up a loose end. I'm not certain I completely understood the plot but no matter. There was always the recipes appendix.

Since the bean casserole was fully explained in the text, it was not needed here. The Onion, Corm, And Tomato Salad was a promising start. I am prejudiced against cooked cauliflower, broccoli, and asparagus, which made up most of the following recipes. Skipping those ones brought me to the Onion Rings for the finale.

SEEN IN THE LITERATURE

[Without a doubt, the following paper will be recognized as one of the great discoveries in geology, a finely detailed study of the day the dinosaurs' world ended, the Cretaceous era ended, the Palaeocene era began, and mammals started their long rise to success.]

Gulick, S.P.S., et al (2019) **The first day of the Cenozoic.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:19342-19351

Authors' abstract: Chicxulub impact crater cores from the peak ring include ~130 m of impact melt rock and breccia deposited on the first day of the Cenozoic. Within minutes of the impact, fluidized basement rocks formed a ring of hills, which were rapidly covered by ~40 m of impact melt and breccia.

Within an hour, ocean waters flooded the deep crater through a northeast embayment, depositing another 90 m of breccia. Within a day, a tsunami deposited material from distant shorelines, including charcoal. Charcoal and absence of sulfur-rich target rocks support the importance of impact generated fires and release of sulfate aerosols for global cooling and darkness post-impact.

Highly expanded Cretaceous-Paleogene (K-Pg) boundary section from the Chicxulub peak ring, recovered by International Ocean Discovery Program—International Continental Scientific Drilling Program Expedition 364, provides an unprecedented window into the immediate aftermath of the impact.

Site M0077 includes \sim 130 m of impact melt rock and suevite deposited the first day of the Cenozoic covered by <1 m of micrite-rich carbonate deposited over subsequent weeks to years.

We present an interpreted series of events based on analyses of these drill cores. Within minutes of the impact, centrally uplifted basement rock collapsed outward to form a peak ring capped in melt rock. Within tens of minutes, the peak ring was covered in ~40 m of brecciated impact melt rock and coarse-grained suevite, including clasts possibly generated by meltwater interactions during ocean resurge.

Within an hour, resurge crested the peak ring, depositing a 10-m-thick layer of suevite with increased particle roundness and sorting. Within hours, the full resurge deposit formed through settling and seiches, resulting in an 80-m-thick fining-upward, sorted suevite in the flooded crater.

Within a day, the reflected rim-wave tsunami reached the crater, depositing a cross-bedded sand-to-fine gravel layer enriched in polycyclic aromatic hydrocarbons overlain by charcoal fragments. Generation of a deep crater open to the ocean allowed rapid flooding and sediment accumulation rates among the highest known in the geologic record. The high-resolution section provides insight into the impact environmental effects, including charcoal as evidence for impact-induced wildfires and a paucity of sulfur-rich evaporites from the target supporting rapid global cooling and darkness as extinction mechanisms.

Chen, Z., et al (2019) **Death march of a segmented and trilobate bilaterian elucidates early animal evolution.** NATURE 573:412-415

Authors' abstract: The origin of motility in bilaterian animals represents an evolutionary innovation that transformed the Earth system. This innovation probably occurred in the late Ediacaran period, as evidenced by an abundance of trace fossils (ichnofossils) dating to this time, which include trails, trackways and burrows. However, with few exceptions, the producers of most of the late Ediacaran ichnofossils are unknown, which has resulted in a disconnection between the body- and trace-fossil records.

Here we describe the fossil of a bilaterian of the terminal Ediacaran period (dating to 551 to 539 million years ago), which we name Yilingia spiciformis

(gen. et sp. nov). This body fossil is preserved along with the trail that the animal produced during a death march. Yilingia is an elongate and segmented bilaterian with repetitive and trilobate body units, each of which consists of a central lobe and two posteriorly pointing lateral lobes, indicating body and segment polarity.

Yilingia is possibly related to panarthropods or annelids, and sheds light on the origin of segmentation in bilaterians. As one of the few Ediacaran animals demonstrated to have produced long and continuous trails, Yilingia provides insights into the identity of the animals that were responsible for Ediacaran trace fossils.

Schmitz, B., et al (2019) An extraterrestrial trigger for the mid-Ordovician ice age: Dust from the breakup of the L-chodrite parent body. SCIENCE ADVANCES 6:doi.org/10.1126/sciadv.aax4184

Authors' abstract: The breakup of the L-chondrite parent body in the asteroid belt 466 million years (Ma) ago still delivers almost a third of all meteorites falling on Earth. Our new extraterrestrial chromite and ³He data for Ordovician sediments show that the breakup took place just at the onset of a major, eustatic sea level fall previously attributed to an Ordovician ice age. Shortly after the breakup, the flux to Earth of the most fine-grained, extraterrestrial material increased by three to four orders of magnitude.

In the present stratosphere, extraterrestrial dust represents 1% of all the dust and has no climatic significance. Extraordinary amounts of dust in the entire inner solar system during >2 Ma following the L-chondrite breakup cooled Earth and triggered Ordovician icehouse conditions, sea level fall, and major faunal turnovers related to the Great Ordovician Biodiversification Event.

Wang, D., et al (2019) The most extensive Devonian fossil forest with small lycopsid trees bearing the earliest stigmarian roots. CURRENT BIOLOGY 29:2604-2615

Authors' abstract: Since the Late Paleozoic, forests have become distributed worldwide and significantly changed the Earth's climate and landscapes, but the record of forests is rare in the Devonian (419 to 359 Ma in age) when they first appeared.

From the Upper Devonian (Famennian with the age of 372 to 359 Ma) of Xinhang, Anhui, China, we report a very large in situ forest, which includes locally dense stands of lycopsid plants. The Xinhang forest is monospecific with a small tree lycopsid Guangdedendron gen. nov., probably dioecious with monocarpic reproduction.

The plant shows the earliest stigmarian rooting system typical of giant tree lycopsids dominating Carboniferous forests. It colonizes coastal clastic wetlands that were influenced by floods. This significantly increases the paleogeographical coverage of in situ Devonian forests, and contributes to our understanding of atmospheric CO2 decline and coastal consolidation.

During the Devonian, the upland forests with roots had greatly accelerated the atmospheric CO2 drawdown, leading the Earth into a major icehouse, and the river banks were stabilized by the root development of riparian vegetation.

Trees originated in the Mid-Late Devonian when they were abundant and include three main types, i.e., archaeopteridalean progymnosperms, fernlike plants, and lycopsids (club mosses). However, the earliest forests are rare in the Devonian, limited to Euramerica, relatively small in exposed surface areas, and their relationship with environments needs to be known in more detail.

By contrast, the Carboniferous (Pennsylvanian Subperiod) forests yielding extensive coal seams are common (including hundreds of sites), even exposed in hectares and among the best-understood Phanerozoic terrestrial ecosystems. The arborescent lycopsids (extinct trees) originated in the Late Devonian and dominated Carboniferous and Permian lowland environments, especially wetland habitats such as tropical swamps.

Griffin, C.T. (2019) Large neotheropods from the Upper Triassic of North America and the early evolution of large theropod body sizes. JOURNAL OF PALEONTOLOGY 93:1010-1030

[Theropods were the big dinosaurs such as the tyrannosaurids, and which survive today only as birds. Polytomy is the evolution of several groups from a common ancestor simultaneously.]

Author's abstract: Large body sizes among nonavian theropod dinosaurs is a major feature in the evolution of this clade, with theropods reaching greater

sizes than any other terrestrial carnivores. However, the early evolution of large body sizes among theropods is obscured by an incomplete fossil record, with the largest Triassic theropods represented by only a few individuals of uncertain ontogenetic stage.

Here I describe two neotheropod specimens from the Upper Triassic Bull Canyon Formation of New Mexico and place them in a broader comparative context of early theropod anatomy. These specimens possess morphologies indicative of ontogenetic immaturity (e.g., absence of femoral bone scars, lack of coossification between the astragalus and calcaneum), and phylogenetic analyses recover these specimens as early-diverging neotheropods in a polytomy with other early neotheropods at the base of the clade.

Ancestral state reconstruction for body size suggests that the ancestral theropod condition was small (~240 mm femur length), but the ancestral neotheropod was larger (~300–340 mm femur length), with coelophysoids experiencing secondary body size reduction, although this is highly dependent on the phylogenetic position of a few key taxa.

Theropods evolved large body sizes before the Triassic-Jurassic extinction, as hypothesized in most other ancestral state reconstructions of theropod body sizes, but remained rare relative to smaller theropods until the Jurassic.

Zelenkov, N.V., et al (2019) A giant early Pleistocene bird from eastern Europe: Unexpected component of terrestrial faunas at the time of early Homo arrival. JOURNAL OF VERTEBRATE PALEONTOLOGY 39:1-7

Authors' abstract: Giant birds, comparable in size to elephant birds and moa, have never been reported from Europe. Here, we describe a femur from the lower Pleistocene of the north Black Sea area (Crimea) that is referred to Pachystruthio dmanisensis, comb. nov., a giant bird with an estimated body mass of about 450 kg.

This value makes this extinct bird one of the largest known avians (comparable to Aepyornis maximus) and the only bird of such giant size in Europe and the Northern Hemisphere in general. In contrast to very large insular birds, Pachystruthio dmanisensis was a good runner, which may be explained by its coexistence with large carnivoran mammals.

Pachystruthio dmanisensis and associated assemblage of fossil mammals are shared with the Dmanisi locality in Georgia (~1.8–1.7 Ma); thus, this giant bird was likely a typical component of eastern European faunas at the time of early hominin arrival. We suggest that Pachystruthio dmanisensis, together with early Homo and a variety of mammals, reached the northern Black Sea region via the southern Caucasus and Anatolia, because the older (Pliocene) finds of this fauna are known from Georgia and Turkey.

DeSantis, L.R.G., et al (2019) Causes and consequences of Pleistocene megafaunal extinctions as revealed from Rancho La Brea Mammals. CURRENT BIOLOGY 29:2488-2495

Authors' abstract and extracts: Sabertooth cats and dire wolves were not in competition for similar prey. Sabertooth cats scavenged more intensively during cooler intervals. Coyote diets were substantially affected by the extinction of megafauna. Rancho La Brea fossils reveal that diets of carnivorans are not always conserved.

The fossils preserved in the Rancho La Brea tar seeps in southern California span the past 50,000 years and provide a rare opportunity to assess the ecology of predators (e.g., the American lion, sabertooth cats, cougars, dire wolves, gray wolves, and coyotes), including clarifying the causes and consequences of the terminal Pleistocene extinction event.

Here, a multi-proxy approach elucidates dietary responses of carnivorans to changing climates and megafaunal extinctions. Using sample sizes that are unavailable anywhere else in the world, including hundreds of carnivoran and herbivore specimens, we clarify the paleobiology of the extinct sabertooth cats and dire wolves, overturning the idea that they heavily competed for similar prey.

Canids (especially the dire wolf) consumed prey from more open environments than felids, demonstrating minimal competition for prey throughout the latest Pleistocene and largely irrespective of changing climates, including just prior to their extinction.

Coyotes experienced a dramatic shift in dietary behavior toward increased carcass utilization and the consumption of forest resources (prey and/or plant resources) after the terminal Pleistocene megafaunal extinction.

Extant predators' ability to effectively hunt smaller prey and/or utilize carcasses may have been a key to their survival, especially after a significant reduction in megafaunal prey resources. Collectively, these data suggest that dietary niches of carnivorans are not always static and can instead be substantially affected by the removal of top predators and abundant prey resources.

Although coyotes are fully capable of scavenging and are known to currently compete with wolves for access to carcasses, as one of the smallest members of the diverse guild of Pleistocene carnivorans (despite being larger during the Pleistocene than modern coyotes),

Canis latrans may not have been able to acquire and/or defend carcasses during the Pleistocene because of the presence of numerous competing predators. Alternatively, C. latrans may have had less catholic diets in the past as compared to today, consuming primarily flesh during the Late Pleistocene.

Ossendorf, G., et al (2019) Middle Stone Age foragers resided in high elevations of the glaciated Bale Mountains, Ethiopia. SCIENCE 365:583-587

Authors' abstract and extracts: Although Late and even Middle Pleistocene human presence has been recently documented on the Tibetan Plateau, little is known regarding the nature and context of early persistent human settlement in high elevations. Here, we report the earliest evidence of a prehistoric high-altitude residential site.

Located in Africa's largest alpine ecosystem, the repeated occupation of Fincha Habera rock shelter is dated to 47 to 31 thousand years ago. The available resources in cold and glaciated environments included the exploitation of an endemic rodent as a key food source, and this played a pivotal role in facilitating the occupation of this site by Late Pleistocene hunter-gatherers.

The occupation of the world's high mountains and plateaus has long been thought to have occurred rather late in human history. High-altitude hypoxia severely limits every aspect of human life, especially when combined with other stressors such as low and oscillating temperatures, aridity, and higher levels of ultraviolet radiation.

However, recent studies have revealed the presence of a Denisova hominin as early as 160 thousand years (ka) ago on the outer eastern slope of the Tibetan Plateau (8), and at 4600 m above sea level (masl), short-term stays for raw material procurement and artifact manufacturing have been dated to 30 to 40 ka ago.

Here, we describe the world's oldest occupation of a residential site at high elevation, which was repeatedly inhabited by humans who exploited a glaciated African ecosystem.

Over several millennia, Fincha Habera was repeatedly used as a residential site. This function is indicated by the density of archaeological materials, the existence of hearth remains and the use of fire, the massive presence of human feces, the simultaneous manufacture and intense use of predominantly locally derived lithic artifacts, and the preparation and consumption of food.

Moreover, the location of Fincha Habera in more moderate climatic contexts was optimally placed at elevations 500 to 700 m below the glaciers, but still in proximity to available resources. The practice of importing predictable resources to a residential site from logistical forays into the Afro-alpine zone included the gathering of obsidian and giant mole-rats.

By focusing on the latter as a sustainable key food source, two essential requirements for high altitude living, higher caloric demands and a reduction of physical strain, were met. This prey was available year-round, occurred in large numbers within a restricted habitat, and was easy to catch. These factors enabled long-term stays at Fincha Habera within a potential annual subsistence circuit.

Shilton, D. (2019) Is language necessary for the social transmission of lithic technology? JOURNAL OF LANGUAGE EVOLUTION 4:124-133

Author's abstract: Recently, a growing number of studies have considered the role of language in the social transmission of tool-making skill during human evolution. In this article, I address this question in light of a new theory of language and its evolution, and review evidence from anthropology and experimental archaeology related to it.

I argue that the specific function of language, the instruction of imagination, is not necessary for the social transmission of tool-making skill. Evidence from hunter-gatherer ethnographies suggests that social learning relies mainly on observation, participation, play, and experimentation.

Ethnographies of traditional stone cultures likewise describe group activities with simple, context-bound interactions embedded in the here and now. Experiments comparing gestural and verbal teaching of tool-making skills also demonstrate that language is not necessary for that process.

I conclude that there is no convincing evidence that language played an important role in the social transmission of lithic technology, although the possibility that linguistic instruction was involved as part of the social interactions accompanying tool-making cannot be excluded.

Charlton, S., et al (2019) **New insights into Neolithic milk consumption through proteomic analysis of dental calculus.** ARCHAEOLOGICAL A N D A N T H R O P O L O G I C A L S C I E N C E S https://doi.org/10.1007/s12520-019-00911-7

Authors' abstract: There has long been debate over the origins of dairy consumption within European populations. Whilst it was previously assumed that lactase persistence (LP) was under positive selection following the advent of agriculture, recent genetic studies of prehistoric human remains have revealed LP may have only emerged in Europe in the last 4,000 years.

These findings stand in contrast to organic residue analysis of Neolithic pottery indicating the utilisation of dairy products, and zooarchaeological mortality profiles consistent with dairying herds at Neolithic sites.

The recent discovery of the milk protein β -lactoglobulin (BLG) within human dental calculus presents a new method via which to explore dairy product consumption in the archaeological past. Here, we apply shotgun proteomic analysis to dental calculus samples from three British Neolithic sites, revealing the earliest identification of BLG in human dental calculus to date. The presence of BLG peptides in individuals who are unlikely to possess LP provides new insight into dairying in the British Neolithic, suggesting the potential processing of milk by Neolithic populations to reduce the lactose content of dairy products.

Pearce, Mark (2019) **The Copper Age: A history of the concept.** JOURNAL OF WORLD PREHISTORY 32:229-250

Author's abstract: The idea that there was a Copper Age between the Neolithic and Bronze Age was inspired by the discovery of the use of native copper in prehistoric North America. Its currency in European prehistory owes much to the 1861 observations by William Wilde that copper tools preceded the use of bronze in Ireland, though Wilde did not postulate a Copper Age per se.

Acceptance of the existence of a Copper Age was a long process, not least as it seemed to contradict the premises of the Three Age System and was conflated with arguments for the local development of copper metallurgy, but the 1876 and 1880 international prehistoric archaeology congresses were key moments in its recognition. By the mid 1880s its validity was widely accepted in Europe.

However contemporary usage of the term varies across Europe, and there can even be significant differences in its use in contiguous areas, as in the Balkans. In part because of disquiet about basing chronological distinctions on changes in technology, some authors have proposed alternative conceptualisations, but most European prehistoric archaeologists continue with regional Neolithic, Copper Age/Chalcolithic/Eneolithic, Bronze Age dating schemes, not least because of their apparent simplicity.

As radiocarbon dates for the period become more widely available, and uncertainties are reduced through the application of Bayesian modelling, it is likely that absolute dates will increasingly take the place of chronological schemes for the dating of the period, but in heuristic terms, labels like Copper Age will perhaps remain useful shorthand for stages in technological, and perhaps socio-economic, development.

Frynta, D., et al. (2019) **Human evaluation of amphibian species: a comparison of disgust and beauty.** SCIENCE OF NATURE 106:doi.org/10.1007/s00114-019-1635-8

Authors' abstract: Animals can evoke a wide range of emotions helping us to choose a quick and appropriate reaction towards them: approach or avoidance in general. This work has focused on disgust evoked by amphibians in humans as well as perceived beauty.

Due to the high morphological variability of recent amphibian taxa, we examined humans' cognitive categorisation of 101 amphibian photos and the effect of stimuli characteristics on disgust evaluation or beauty perception of individual groups/species. We also explored how respondents' characteristics, e.g. gender, age and disgust sensitivity influence the disgust and beauty evaluation of picture stimuli on a 7-point Likert scale.

The scores of disgust and beauty evaluation were strongly negatively correlated, representing the opposite ends of a single axis, further referred to as the index of preference. The most preferred amphibians belonged to anurans, whereas the least preferred ones were mostly worm-like, legless and small-eyed caecilians.

Additional analyses of morphologically diverse anurans showed that species with a round body shape, short forelegs, small eyes, warts, pink and grey colouration, or dark and dull colouration were perceived as disgusting or ugly.

The effect of gender and age were only marginal; however, people with higher disgust sensitivity rated amphibians as more disgusting and less beautiful, which might support the hypothesis of a possible disgust involvement in animal fears and phobias. This topic has implications not only for the nature conservation decisions of globally endangered amphibians but also for understanding the evolution of disgust and its generalisation to harmless animals.

Dempsey, Z.W., et al (2019) Found, forgotten, and found again: systematics and distribution of Cooper's Rocky Mountain snail (Oreohelix cooperi) on a sky island in the Canadian prairies. CANADIAN JOURNAL OF ZOOLOGY 97:833-840

[The Cypress Hills straddle the Alberta-Saskatchewan border. They are very high hills that escaped being bulldozed by the continental ice sheets during the Pleistocene ice ages. The hills are covered with well-watered forests and surrounded by semi-desert treeless grasslands of the driest part of the Canadian prairies. From an ecological point of view they are islands.]

Authors' abstract: The results of phylogeographic and biogeographic studies of organisms residing in isolated habitats provide key insights into processes of population differentiation, speciation, and endemicity. Several of the

approximately 70 species of land snail in the genus Oreohelix Pilsbry, occur only on isolated sky islands on the North American Great Plains. The restricted distributions of these snails have led to concerns regarding their conservation status, particularly in western Canada where their systematics and distributions are poorly known.

Cooper's Rocky Mountain snail (Oreohelix cooperi) has been reported from several sky islands in the northern United States. We evaluated morphological characteristics and sequence data for samples of putative O. cooperi collected from a sky island in the Cypress Hills area of southeastern Alberta and southwestern Saskatchewan.

COI sequences matched O. cooperi from snails collected on sky islands in South Dakota and Wyoming and morphological analyses of shell shape and male genitalia were consistent with published descriptions of this species.

COI and ITS2 sequences and morphological characteristics of these snails did not match other Oreohelix spp. found in the Cypress Hills and in the adjacent Rocky Mountains. Our results extend the distribution of O. cooperi into southern Canada and confirm its endemicity within sky islands of western North America.

Neco, L.C., et al (2019) **The evolution of self-medication behaviour in mammals.** BIOLOGICAL JOURNAL OF THE LINNEAN SOCIETY 128:373-378

Authors' abstract: Self-medication behaviour is the use of natural materials or chemical substances to manipulate behaviour or alter the body's response to parasites or pathogens. Self-medication can be preventive, performed before an individual becomes infected or diseased, and/or therapeutic, performed after an individual becomes infected or diseased.

We summarized all available reports of self-medication in mammals and reconstructed its evolution. We found that reports of self-medication were restricted to eutherian mammals and evolved at least four times independently. Self medication was most commonly reported in primates.

Detailed analyses of primates suggest that self-medication is a life-history trait associated with body size, absolute brain size and longevity, but we found no

support for the hypothesis that self-medication evolved to reduce the costs of social living. Large, longer-lived species might thus benefit uniquely from self-medication.

A variety of mammals engage in self-medication behaviour. Specific activities include the ingestion of whole leaves to expel parasites from the digestive system or soil to alleviate intestinal problems, done mostly by apes and elephants, fur rubbing with citric acid plants to treat skin problems and millipedes to avoid parasites, as done by non-human primates, the placement of bay foliage around the nest to reduce the development of ectoparasites in dusky-footed wood rats, and the use of specific plant substances to attenuate negative effects of food ingestion by artiodactyls.

Roediger, H.L.3rd, et al. (2019) **Competing national memories of World War II.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:16678-16686

Authors' abstract: We assessed the knowledge of 1,338 people from 11 countries (8 former Allied and 3 former Axis) about World War II. When asked what percentage their country contributed to the war effort, across Allied countries, estimates totaled 309%, and Axis nations' estimates came to 140%. People in 4 nations claimed more than 50% responsibility for their country (Germany, Russia, United Kingdom, and United States).

The overclaiming of responsibility reflected in these percentages was moderated when subjects were asked to consider the contributions of other countries; however, Russians continued to claim great responsibility, the only country that remained well over 50% in its claim of responsibility for the Allied victory.

If deaths in the war are considered a proxy of a nation's contributions, the Soviet Union did carry much of the burden. This study points to sharp differences in national memory even across nations who fought on the same side in the war. Differing national perspectives shape diverse memories of the same complex event.

Stewart, A.J., et al (2019) **Information gerrymandering and undemocratic decisions.** NATURE 573:117-121

Authors' abstract: People must integrate disparate sources of information when making decisions, especially in social contexts. But information does not always flow freely. It can be constrained by social networks and distorted by zealots and automated bots.

Here we develop a voter game as a model system to study information flow in collective decisions. Players are assigned to competing groups (parties) and placed on an 'influence network' that determines whose voting intentions each player can observe. Players are incentivized to vote according to partisan interest, but also to coordinate their vote with the entire group.

Our mathematical analysis uncovers a phenomenon that we call information gerrymandering: the structure of the influence network can sway the vote outcome towards one party, even when both parties have equal sizes and each player has the same influence. A small number of zealots, when strategically placed on the influence network, can also induce information gerrymandering and thereby bias vote outcomes.

We confirm the predicted effects of information gerrymandering in social network experiments with n=2,520 human subjects. Furthermore, we identify extensive information gerrymandering in real-world influence networks, including online political discussions leading up to the US federal elections, and in historical patterns of bill co-sponsorship in the US Congress and European legislatures.

Our analysis provides an account of the vulnerabilities of collective decision-making to systematic distortion by restricted information flow. Our analysis also highlights a group-level social dilemma: information gerrymandering can enable one party to sway decisions in its favour, but when multiple parties engage in gerrymandering the group loses its ability to reach consensus and remains trapped in deadlock.

Lee, L.O., et al (2019) **Optimism is associated with exceptional longevity in two epidemiologic cohorts of men and women.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:18357-18362

Authors' abstract: Optimism is a psychological attribute characterized as the general expectation that good things will happen, or the belief that the future will be favorable because one can control important outcomes. Previous studies reported that more optimistic individuals are less likely to suffer from chronic diseases and die prematurely.

Our results further suggest that optimism is specifically related to 11 to 15% longer life span, on average, and to greater odds of achieving "exceptional longevity," that is, living to the age of 85 or beyond. These relations were independent of socioeconomic status, health conditions, depression, social integration, and health behaviors (e.g., smoking, diet, and alcohol use). Overall, findings suggest optimism may be an important psychosocial resource for extending life span in older adults.

Most research on exceptional longevity has investigated biomedical factors associated with survival, but recent work suggests nonbiological factors are also important. Thus, we tested whether higher optimism was associated with longer life span and greater likelihood of exceptional longevity.

Exceptional longevity was defined as survival to age 85 or older. Primary analyses used accelerated failure time models to assess differences in life span associated with optimism; models adjusted for demographic confounders and health conditions, and subsequently considered the role of health behaviors.

Further analyses used logistic regression to evaluate the likelihood of exceptional longevity. In both sexes, we found a dose-dependent association of higher optimism levels at baseline with increased longevity (P trend < 0.01). For example, adjusting for demographics and health conditions, women in the highest versus lowest optimism quartile had 14.9% (95% confidence interval, 11.9 to 18.0) longer life span.

Findings were similar in men. Participants with highest versus lowest optimism levels had 1.5 (women) and 1.7 (men) greater odds of surviving to age 85; these relationships were maintained after adjusting for health behaviors. Given work indicating optimism is modifiable, these findings suggest optimism may provide a valuable target to test for strategies to promote longevity.

Johnson, N.F., et al (2019) **Hidden resilience and adaptive dynamics of the global online hate ecology.** NATURE 573:261-265

Authors' abstract: Online hate and extremist narratives have been linked to abhorrent real-world events, including a current surge in hate crimes and an alarming increase in youth suicides that result from social media vitriol; inciting mass shootings such as the 2019 attack in Christchurch, stabbings and bombings; recruitment of extremists, including entrapment and sex-trafficking of girls as fighter brides; threats against public figures, including the 2019 verbal attack against an anti-Brexit politician, and hybrid (racist—antiwomen—anti-immigrant) hate threats against a US member of the British royal family; and renewed anti-western hate in the 2019 post-ISIS landscape associated with support for Osama Bin Laden's son and Al Qaeda.

Social media platforms seem to be losing the battle against online hate and urgently need new insights. Here we show that the key to understanding the resilience of online hate lies in its global network-of-network dynamics. Interconnected hate clusters form global 'hate highways' that, assisted by collective online adaptations, cross social media platforms, sometimes using 'back doors' even after being banned, as well as jumping between countries, continents and languages.

Our mathematical model predicts that policing within a single platform (such as Facebook) can make matters worse, and will eventually generate global 'dark pools' in which online hate will flourish. We observe the current hate network rapidly rewiring and self-repairing at the micro level when attacked, in a way that mimics the formation of covalent bonds in chemistry.

This understanding enables us to propose a policy matrix that can help to defeat online hate, classified by the preferred (or legally allowed) granularity of the intervention and top-down versus bottom-up nature. We provide quantitative assessments for the effects of each intervention. This policy matrix also offers a tool for tackling a broader class of illicit online behaviours such as financial fraud.

FROM: Theo Nelson Calgary, Alberta 2019-09-21

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

[Theo's quarterly mail art postcard for the equinoxes and solstices. The view side is on the next page. I think it neatly complements the front cover of this issue.]

+ nelson@beas.com

It is said orange Is the new black. Orange works for Autumn as well. Oranges, yellows, ambers, Reds, and browns, Define the reason, Colouring the bounty Of the harvest, Giving us reason To rejoice before The coming cold.

Quizzies in an Autumn field



