

Winter Solstice 2018

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.

WALKING IN A WINTER WONDERLAND

photos by Dale Speirs



A walk around my neighbourhood. What else is there to say?







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Below: Everyone else had an inflatable Santa waist or head high. This household had a 1-story tall Santa. In a word: oneupmanship.

And beginning on the next page, the downtown core celebrated.



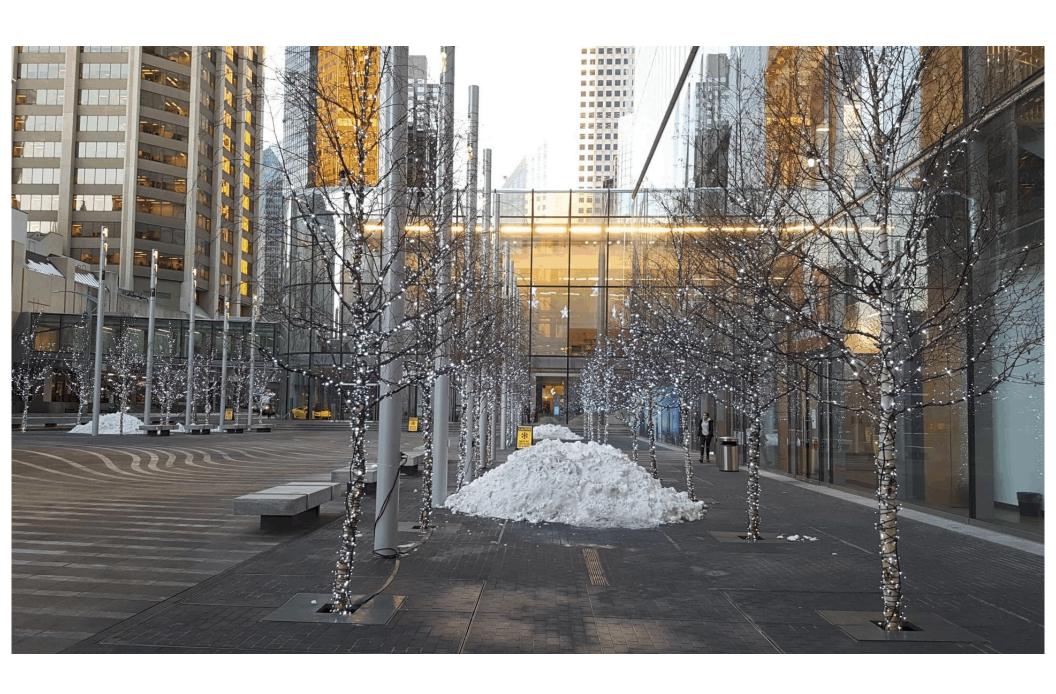


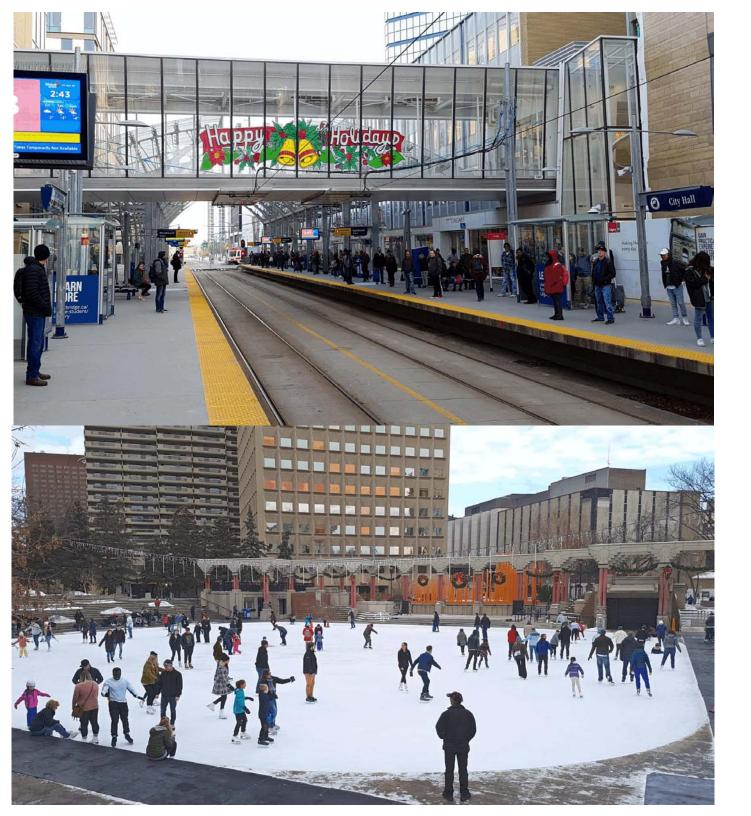
Scenes from the TD Square atrium mall in downtown Calgary. They have a three-story tall tree for the season. In addition, they stage a charity event with about 100 trees to be decorated by corporate groups. A few days before Christmas, the trees will be distributed to needy families.





The south courtyard of the Brookfield Place skyscraper. Some days it snows, some days it doesn't.





Upper left: City Hall LRT station. The pedestrian overpass was carefully decorated with generic greetings. A chinook had removed the snow.

Lower left: Olympic Plaza a few days later after a snowfall. I worked 31 years for the Parks Dept. and supervised the maintenance of almost every outdoor rink in the city at one time or another.

One thing I noticed during my time was that pleasure skaters instinctively skated counter-clockwise around the rink. It was not required by rules, but was something they did automatically.



The Calgary Philharmonic Orchestra performed at the Suncor Plaza food court in downtown Calgary.

Look closely at the bush plane hanging from the atrium roof and you'll see Santa waving out the cockpit.



CHRISTMAS FICTION: PART 2

by Dale Speirs

[Part 1 appeared in OPUNTIA #430.]

Broadcast Media: Private Investigators Work The Holidays.

"Santa Claus Is No Saint", written by Louis Vittes, was an episode of the oldtime radio series THE SAINT, based on the stories by Leslie Charteris. (This and other OTR shows are available as free mp3s from www.otrrlibrary.org.) Aired on December 24, 1950, the story began on Christmas Eve, with Simon Templar dressing up as Santa Claus for a children's benefit.

As he and a friend prepared to leave for the event, a young woman barged in waving a gun at them. She barely had time to threaten them when another uninvited guest arrived, also up to no good. One thing led to another, but that contretemps was soon sorted out.

Templar found himself investigating a jewel heist from a manor house that afternoon. It happened at a Christmas party and the man who was hired as Santa Claus was the main suspect. He didn't make it to Christmas Eve. The jewels were not in his apartment where his body was found. The chase went hither and yon, with The Saint making snappy quips every second line.

Everyone ended up back at the manor house, where the last ten minutes of the episode were used by the characters, mostly Templar, to explain the plot to each other and who did what. The jewels were stolen as part of an insurance fraud. The man who played Santa was thin, and smuggled the jewels out in the pillow he used for his belly.

Templar did his entire investigation dressed as Santa but never did make it to the children's party. He worried about how the kids felt being stood up by the jolly old man. The episode was mildly amusing and worth listening to once.

"Santa Claus In Glass", written by David Victor and Jackson Gillis, was a 1950 episode of the old-time radio series LET GEORGE DO IT, aired on Christmas Day by transcription.

George Valentine was a private detective who ran an ad in the classifieds which he recited at the beginning of each episode: *Personal notice: Danger's my stock*

in trade. If the job's too tough for you to handle, you've got a job for me. Write full details. Valentine's secretary and girlfriend was Claire Brooks, whom everyone called Brooksie.

The episode opened on the afternoon of December 24, with Valentine and Brooksie getting romantic in her apartment while the Christmas duck was cooking in the oven. People began interrupting them, first the elevator man, then a postman, then a divorcee, and a courier. They all wanted the neighbour who lived next door but he wasn't home. Valentine and Brooksie could do nothing about the situation, but the steady stream of visitors insisted on pouring out their stories to them, whether they wanted to hear them or not.

Valentine eventually figured out that the neighbour had a double phone line (the same number for two different places) and was actually at his other address. The plot became difficult to describe with many twists, and packages shuffling back and forth. Valentine thought one of the packages was a bomb, but when he opened it, it was a glass Santa Claus figurine, which got smashed.

The episode trickled to an end. Sad people tried to celebrate Christmas without any joy in their hearts. Valentine and Brooksie spent so much time chasing clues that at the end when they returned to her apartment, they found the duck was burned to a crisp. At least they had each other.

The following year, the episode "Christmas Letter" was aired on Christmas Eve 1951. Valentine and Brooksie returned from a Christmas party, and just before they settled in for the night, he decided to check his mail. One was a letter from Japan, a soldier who had been corresponding with a woman he had never met. Enclosed with the letter was \$20 (call it \$200 in today's depreciated currency) asking Valentine to take his girl out for dinner as a proxy. Needless to say, Brooksie did not approve. She went along to the woman's apartment with him as a chaperon.

The woman told them that she was engaged and was sorry that the soldier had been misled by her. Awkward apologies were made, and they left. The situation became increasingly awkward when the engagement ring was stolen, Valentine was mugged, and a sneak thief began working just about every place Valentine went. The fiancé was equally sneaky. After assorted alarums and excursions, those who deserved justice got it, and the rest went home to enjoy Christmas Eve. The plot was complicated but sorted itself out in time. Worth listening to once.

Sherlock Holmes appeared in a 1950s television series of that name, filmed in France to save money, broadcast in the USA, and then forgotten until the advent of VHS and DVD. The series is in the public domain and there are numerous box sets available. It was played better than most, with a younger Holmes and a Watson who wasn't an idiot like Nigel Bruce. Most of the episodes were pastiches.

"The Case Of The Christmas Pudding" was a 1955 episode written by George and Gertrude Fass. It opened in the Old Bailey during December, where a judge put on the black cap and sentenced John Norton to death. Holmes and Watson were among the spectators, and had helped put Norton away. As the condemned man was led out of the courtroom, he threatened to kill Holmes. Everyone chuckled, for Norton could hardly strike back from Death Row.

A few days later, Norton's wife Bess brought a Christmas gift for her man, a Christmas pudding packaged as a present with ribbons. This is a traditional British food. It is not actually a pudding but rather is a type of fruitcake, stirred up in brandy to preserve it during the days before refrigeration, and shaped into a cannonball. It is served flambe.

The warden carefully checked the pudding by slicing it with a knife to ensure no hacksaw was hidden within. He passed it, Bess re-wrapped it, and it was given to her husband. He made his escape soon after, having cut through the bars in the cell window, then tearing his blanket into strips and making a rope to lower himself out of the prison.

The alarm was sounded. Bess was put under police guard, but Holmes acted casual. Norton appeared at Baker Street, barged into the darkened rooms, and saw Holmes seated at a desk. He opened fire and fled, but didn't get far. What he shot was a mannequin, not Holmes.

In the epilogue, the escape is explained to the prison warden. Holmes examined the parcel wrappings and plucked out the string used to tie it. He then used the string to cut into a table, demonstrating that it had been impregnated with diamond dust, the same as used in industrial cutting of steel.

The episode wasn't bad, with a couple of points to mystify the viewer.



Broadcast Media: Action Adventure.

THE LIBRARIANS is a television series now in its fifth season. It is about a ragtag group who work for a secret library that collects magical artifacts and tries to stop evil doers. We know they are evil doers because they want to collect magical artifacts and store them in a different place.

"And Santa's Midnight Run" (2014) is a first-season episode, written by Paul Guyot and John Rogers. It was played for humour, as indeed it had to be. Santa was kidnapped, but he wasn't the ho-ho-ho, red-and-white version. He was an immortal avatar who spent the year traveling the world and absorbing goodwill and happiness.

On Christmas Eve, he rose into the atmosphere and released all of it back into humanity, refreshing them for the new year. Without him, it was stated, humans would become cranky, argumentative, and start wars. The flaws in this premise were blatantly obvious, nevermind the other religions such as Islam and Buddhism.

The villains were the Serpent Brotherhood. The Librarians quickly tracked down their manor house lair where they were holding Santa. It wasn't as simple as that, for otherwise the episode would be over in fifteen

minutes. The Brotherhood wanted to kill Santa after they had drained him of all that energy he was collecting, and use it for evil.

Two of the Librarians, the skinniest ones, came down the chimney to rescue Santa, the mansion being the old style with fireplaces big enough to roast an ox. A good thing the Brotherhood didn't have a modern suburban house. Various alarums followed, but the Librarians got Santa free. He turned out to be an annoying twit, always referring to himself in the third person.

Santa needed to reach the North Pole by midnight Christmas Eve because that was where the strongest ley lines were to release his beneficial energy. The Librarians got him as far as northern British Columbia before their vehicle ran out of gas. From there, they figured out a workaround and got a cargo plane to finish the trip. The villains tried to hijack the plane in mid-air, always good for SFX. Everything went weird, with a ridiculous ending that was the only way to play it.



Broadcast Media: Radio Humour.

THE JUDY CANOVA SHOW ran from 1943 to 1953 on old-time radio. (This and other OTR shows are available as free mp3s from www.otrrlibrary.org.) Canova was a Florida singer who was typecast as a rural hick from Cactus Junction somewhere in the South, with an accent thick enough to cut with a knife.

Each episode was partly a sitcom about her supposed life, but she sang two songs each time, a novelty or comedy song and a serious ballad. She was a good singer but had trouble being taken seriously because of her hillbilly comedy. Her sister Annie played piano and very well too. Regular characters in the series were her Aunt Aggie, with whom she lived, their Negro maid Geranium, and the Mexican gardener Pedro.

"A Quiet Christmas Party" aired on December 21, 1946, written by Fred Fox and Henry Hoople. The episode began with Canova singing "Santa Claus Is Coming To Town", followed by the opening scene of the sitcom. There was no real plot, just gags, one after the other.

Judy, Aunt Aggie, and Geranium were working in the kitchen preparing for a small Christmas party. They discussed the special joy of this Christmas, when prosperity was returning to America after the war, and people could spend money again on gifts. Pedro showed up for gags about his girlfriend.

At that point, Judy and Pedro adjourned to a downtown store for some last-minute shopping. One of their gags fell absolutely flat, to dead silence from the audience, but Judy and Pedro neatly recovered with a few ad-libs. The episode then jumped to a song by the Sportsmen Quartet, who normally worked for Jack Benny on his show, but this time were guests for Judy. As they did for Benny, they sang a brief ditty about Judy and then went into their regular song.

Back to the house where Judy gave Aunt Aggie a blow-by-blow account of shopping in the crowded store. Pedro got into an ill-fitting Santa Claus suit. Once those gags were worked out, the story suddenly jumped back to Cactus Junction as Judy reminisced about her childhood Christmases there.

Finally a return to the present, where Pedro tipped over the Christmas tree while trying to set ornaments at the top. After the inevitable crash, the sitcom portion of the show abruptly ended. Judy sang a sentimental Christmas song and on that note the show ended. Good listening, as are the other episodes of her show. Worth downloading the mp3s.

THE DAMON RUNYON THEATER was an OTR series dramatizing that author's Guys and Dolls series about Manhattan gangster life in the 1920s, with occasional side trips to Florida and other places. The stories are mildly humourous with sentimental endings, and make pleasant listening. The sound quality of the mp3s is excellent.

The narrator of the radio series was Broadway, a small-time gambler who lived by his wits. He was a mild inoffensive type, considered a neutral by the heavies he associated with, and constantly getting mixed up in ridiculous situations. In many episodes, he was not actually involved in the story but had it told to him by some underworld fella.



One such story was the 1949 episode "Palm Beach Santa Claus", told to Broadway by mobster Fatso Zimpf.

The latter had been lounging about that fair Florida city when he was accosted by a society dame who wanted him to play Santa Claus at her Christmas party. For \$100 (in 1920s money, call it \$1,000 or more today) all he had to do was ho-ho-ho and pass out the gifts.

Zimpf arrived early, was fitted out by the butler with a Santa suit, and had time to scout the layout of the mansion. He learned of some of the soap operas in the place.

A young couple, who by all rights belonged to each other, had quarreled and let their pride get in the way of reconciliation. Her parents were there; they had a frosty marriage. The dame was squired by

a gigolo who had his eye on her money. The man called himself a count, but Zimpf recognized him as a passenger ship waiter from New York City.

To resolve the problems, Zimpf switched the labels around on the gifts, such that each person got what they deserved, for good or bad. The young couple reconcile, and so do her parents. The gigolo was forced to make a run for it, and the less seen of him in the future the better. There was a twist ending that took place a year later. All told, a good story.

THE MAGNIFICENT MONTAGUE was a brief old-time radio series that ran in 1950 and 1951. I've written more about the series in OPUNTIA #377, which see. Edwin Montague was a Shakespearean stage actor who had sunk to the depths of afternoon soap opera, where he played Uncle Goodheart, a busybody who callously interfered in his neighbours' lives whether they wanted help from him or not. Montague's wife Lily was a retired actress and her acerbic maid Agnes had been her dresser.

"A Child Visits" was an episode written by Nat Hiken and Billy Friedberg, first aired on December 22, 1950. The fans of Uncle Goodheart were swamping the Montague apartment with Christmas gifts. Agnes got a telephone call that her nephew was coming to the city and could someone please meet him at the train station. She couldn't meet him because she had to go and do an errand, so she badgered Montague into the job.

He was a grouchy man at the best of times, and despised children. Nevertheless, he brought back the boy, who turned out to be a rotten teenager. Lots of sarcasm and cheap shots back and forth between the two, which took up much of the episode. Agnes returned home and told Montague that the boy was not her nephew but a total stranger. Only then was it realized that Montague had picked up the wrong kid, who had also arrived in town to visit his aunt.

The comedy was mostly gag-a-minute, with lots of misunderstandings that could have been cleared up in a moment had the characters been paying attention. A funny show, as indeed the series is. Worth downloading the mp3s.





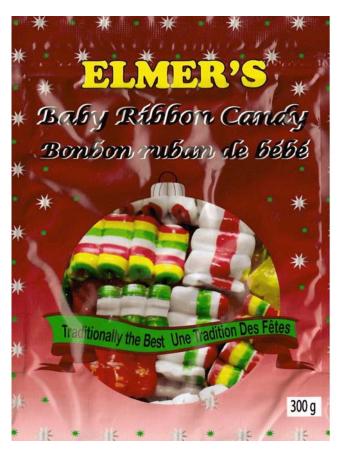


Assorted Christmas-themed cupcakes from my local Safeway; a snowman, wreath, and the Grinch.

I'M SORRY, I'LL READ THAT AGAIN was a British comedy series which aired on BBC Radio 2 from 1964 to 1973. It was an ensemble show based in Cambridge. Several writers and comedians of the series became part of the Monty Python troupe. I've listened to a number of episodes and wasn't impressed. Too much frantic chatter in a style that hasn't survived the test of time.

The episode "The Christmas Carrot" was first aired on Christmas Day, 1969. It began with a group of young carolers extorting money from homeowners by singing "Silent Night" loudly in the late hours of the night when people were trying to sleep. They wouldn't shift until they got a substantial 'donation'.

From there a jump to a recorded announcement explaining that the show was recorded earlier and was being played back on Christmas Day. The recording then jammed and kept repeating. A second recording began playing over top of it apologizing for the technical difficulties due to everything being recorded. It, too, jammed and repeated. A third one began, and soon there was a cacophony of repetitious recordings.



There are a few more random gags, before the rest of the episode was given over to that famous story about Scrooge.

The Scrooge play was mostly gags that got two-second bursts of laughter, interspersed with gags that got hearty chuckles. By 1969, the Dickens story had been parodied so many times that it was difficult to come up with anything new.



South entrance of Bow Valley Square skyscraper.

WE'LL ALL GO TOGETHER WHEN WE GO: PART 10

by Dale Speirs

[Parts 1 to 9 appeared in OPUNTIAs #249, 276, 283, 301, 312, 327, 343, 365, and 417.]

The Star of Bethlehem wasn't a meteor, but what the heck, I'll use that as an excuse to slip in here the latest installment of this column.

Palaeo-Doom.

OMEGA: THE LAST DAYS OF THE WORLD by Camille Flammarion is an 1894 novel available as a free download from www.gutenberg.org in a variety of formats.

The novel is set sometime in the 25th Century. It makes passing reference to a terrorist attack by anarchists in 1950 that blew a gigantic crater in the centre of Paris. The crater had since been filled in and many new buildings constructed. Most of the narrative takes place in the United States of Europe, with an occasional nod to other parts of the world. Mars had inhabitants, with which Earth was in intermittent communication, but neither planet could send out spaceships.

The novel opened directly with the news from astronomers that a comet was inbound for Earth on a collision course. The impending doom collapsed the world economy, for why work when it was all in vain?

The complete agreement between the astronomical data, whether from European, American, or Asiatic sources, could leave no further doubt of their exactness. The daily papers sowed broadcast this alarming news, embellished with sinister comments and numberless interviews in which the most astonishing statements were attributed to scientists.

Their only concern was to outdo the ascertained facts, and to exaggerate their bearing by more or less fanciful additions. As for that matter, the journals of the world had long since become purely business enterprises. The sole preoccupation of each was to sell every day the greatest possible number of copies.

They invented false news, travestied the truth, dishonored men and women, spread scandal, lied without shame, explained the devices of thieves and

murderers, published the formulae of recently invented explosives, imperilled their own readers and betrayed every class of society, for the sole purpose of exciting to the highest pitch the curiosity of the public and of selling copies.

We would never see such things from our mass media, would we? Come to think of it, this is pretty good prophecy.

Every citizen who had a telescope watched the oncoming comet, whose nucleus was thirty Earth diameters. There was debate as to whether or not it was the end of our planet, for if Earth passed through the gases, there might be an outside chance. The gases, however, were probably poisonous.

Infodumps speckled the narrative, explaining how to calculate orbits and such things. Charts and diagrams were provided for further clarity. Astronomers lectured the public with conflicting opinions. Some said humanity would get its hair mussed but muddle through. Just a few tens of megadeaths, depending on how dense the nucleus was or how poisonous the gases were. Others said it was an extinction level event and the end was nigh. Most humans chose to believe they had a chance, and business revived to some extent.

Night had come, and with it the flaming comet, larger, more brilliant, and more threatening than ever; and if, perhaps, one-half the assembled multitude appeared somewhat tranquillized, the remaining half was still anxious and fearful.

There then occurred a strange infodump in which a geologist lectures the astronomers and the general public that we were all doomed anyway because of erosion. Yes, over the next 4 million years everything will be ground down to sea level by wind and water. His speech went on for several decades, pardon me, pages, in which he trotted out numerous factual data and calculations. This seemed to calm the people, for if we are to be flooded out of our homes in 4 million years, then why worry about dying tomorrow?

The fallacy behind this argument, which any geologist back then knew, is that new land is constantly being raised. Mountain ranges are produced by tectonic plates scraping up against each other and piling up debris at the edges. Volcanos erupt and pump out new land. It was a straw man argument.

Then a meteorologist stepped forth and demonstrated at great length that the world would not end in flood but in drought. The waters were shrinking away,

sinking into the depth's of Earth's crust or combining chemically with elements to produce oxides and the like. We were doomed to death by thirst, a few million years from now. Another straw man argument.

Wait! There's more! The third speaker was a woman who pointed out that Earth's overall climate was gradually cooling. The world would not end in flood or drought but in ice. Oxygen in the atmosphere was gradually decreasing as it combined with elements in the rocks, so therefore water vapour in the upper atmosphere would do so likewise. The vapour trapped heat through the greenhouse effect, so as it declined, more heat would escape and Earth then cool off. The fallacy here was that oxygen is generated by the blanket of plant life that covers our planet, constantly reinvigorating the atmosphere.

From there, a parade of doomsayers took the lectern in succession. The Sun will die eventually, which is true but is several billion years ahead in the future. A rogue star will disrupt Earth's rotation. The Solar System was traveling around the rim of the galaxy and may run into a nebula whose frictional forces cause a flare-up.

The lamenting was interrupted by a message from the Martians. They had recalculated the numbers and warned that the comet will hit Italy about where Rome is. It was but may no longer be the Eternal City. Further calculations indicated that Italy would more than get its hair mussed, but anyone in Chicago or Beijing could relax. It would be a local impact, not an extinction-level event.

Having heard from the scientists, the story shifted to infodumps and rebuttals about how the various religions perceived the End Times. Since none of them are based on fact, it was relatively easy to refute them. The author padded out the novel with a summary of the history of the early Christian church and how it had to change its theology repeatedly when Armageddon never appeared as was expected imminently. The prophecies of the past 1,900 years were covered, all of them wrong.

By this part of the book, I was thinking of moving this review over to my column "Matthew 24:6". The comet finally reappeared in the narrative about halfway through the book. As entertaining and instructive as the infodumps were, it was nice to see the author remember what the plot was supposed to be about.

The comet arrived, and not before time, and intersected with Earth: *Never before had the earth been bathed in such a light, which at first seemed to be colorless, emitting lightning flashes from its pale and wan depths. The dryness of the air, hot as the breath of a furnace, became intolerable, and a horrible odor of sulphur, probably due to the super-electrified ozone, poisoned the atmosphere.*

Everyone believed his last hour was at hand. A terrible cry dominated every other sound. The earth is on fire! The earth is on fire! Indeed, the entire horizon was now illuminated by a ring of bluish flame, surrounding the earth like the flames of a funeral pile. ...

Besides the heat and the dryness, so destructive to every vital function, there was the carbonic-oxide which was already beginning to poison the atmosphere. The ears were filled with a dull, roaring sound, the heart beat ever more and more violently; and still this choking odor of sulphur!

At the same time a fiery rain fell from every quarter of the sky, a rain of shooting stars, the immense majority of which did not reach the earth, although many fell upon the roofs, and the fires which they kindled could be seen in every direction. To these fires from heaven the fires of earth now made answer, and the world was surrounded with electric flashes, as by an army.

Everyone, without thinking for an instant of flight, had abandoned all hope, expecting every moment to be buried in the ruins of the world, and those who still clung to each other, and whose only consolation was that of dying together, clung closer, in a last embrace.

Straight out of the Book of Revelation, one might think. But hold! While awful in the original meaning of that word, it did not get any worse, and soon began to recede. Earth punched through the comet nucleus. Millions died, but on a planet of billions their deaths were just a line item.

Having run out of superlatives and destruction, the author abruptly changed course. The second half of the book was a utopian novel, explaining how the new world aborning came about. It went millennia into the future, describing the rise and fall of humanity, as the human race dwindled away. Very depressing reading. The book would have been better without it.

I skimmed pages of the utopian and dystopian blather before reaching the end. My advice is to skip the second part. The first half of the book reads well. Once the comet kerfluffle is over, stop reading.

This Just In.

Taken from THE PICTORIAL PRESS: ITS ORIGIN AND PROGRESS (1885) by Mason Jackson, page 16, available at www.gutenberg.org



FALL OF METEORS AT BAWLKIN GREEN, BERKSHIRE, APRIL 9, 1628.

'Looke up and See Wonders: a miraculous Apparition in the Ayre, lately seen in Barke-shire, at Bawlkin Greene, neere Hatford, April 9th, 1628.'

The author, like his fellow-chroniclers, already quoted, regards the occurrence as a sign of Heaven's displeasure, and addresses his readers thus: 'So Benummed wee are in our Sences, that albeit God himselfe Holla in our Eares, wee by our wills are loath to heare him. His dreadfull Pursiuants of Thunder and Lightning terrifie vs so long as they have vs in their fingers, but beeing off, wee dance and sing in the midst of our Follies.'

He then goes on to tell how 'the foure great quarter-masters of the World (the foure Elements) ... have bin in civill Warres one against another.... As for Fire, it hath denied of late to warme vs, but at vnreasonable rates, and extreame hard conditions. But what talke I of this earthy nourishment of fire? How have the Fires of Heaven (some few yeares past) gone beyond their bounds, and appeared in the shapes of Comets and Blazing Starres?...

The Aire is the shop of Thunder and Lightning. In that, hath of late been held a Muster of terrible enemies and threatners of Vengeance, which the great Generall of the Field who Conducts and Commands all such Armies (God Almighty, I meane) auert from our Kingdome, and shoote the arrowes of his indignation some other way, vpon the bosomes of those that would confound his Gospell.... Many windowes hath he set open in heauen, to shewe what Artillery hee has lying there, and many of our Kings haue trembled, when they were shewne vnto them.

What blazing Starres (euen at Noone-dayes) in those times hung houering in the Aire? How many frightfull Ecclipses both of Sun and Moone?... It is not for man to dispute with God, why he has done this so often ... but, with feare and trembling casting our eyes up to Heauen, let us now behold him, bending his Fist onely, as lately he did to the terrour and affrightment of all the Inhabitants dwelling within a Towne in the County of Barkshire....

The name of the Towne is Hatford, some eight miles from Oxford. Ouer this Towne, vpon Wensday being the ninth of this instant Moneth of April, 1628, about fiue of the clocke in the afternoone this miraculous, prodigious and fearefull handy-worke of God was presented.... The weather was warme, and without any great shewe of distemperature, only the skye waxed by degrees a little gloomy, yet not so darkened but that the Sunne still and anon, by the power of the brightnesse, brake through the thicke clouds....

'A gentle gale of wind then blowing from betweene the West and North-west, in an instant was heard, first a hideous rumbling in the Ayre, and presently after followed a strange and fearfull peale of Thunder, running vp and downe these parts of the Countrey, but it strake with the loudest violence, and more furious tearing of the Ayre, about a place called The White Horse Hill, than in any other. The whole order of this thunder, carried a kind of Maiesticall state with it, for it maintayned (to the affrighted Beholders' seeming) the fashion of a fought Battaile.

'It beganne thus: First, for an onset, went off one great Cannon as it were of thunder alone, like a warning peece to the rest that were to follow. Then a little while after was heard a second; and so by degrees a third, vntil the number of 20 were discharged (or thereabouts) in very good order, though in very great terror.

'In some little distance of time after this was audibly heard the sound of a Drum beating a Retreate. Amongst all these angry peales shot off from Heauen, this begat a wonderful admiration, that at the end of the report of every cracke, or Cannon-thundering, a hizzing noyse made way through the Ayre, not vnlike the flying of Bullets from the mouthes of great Ordnance; and by the iudgement of all the terror stricken witnesses they were Thunder-bolts.

For one of them was seene by many people to fall at a place called Bawlkin Greene, being a mile and a half from Hatford: Which Thunder-bolt was by one Mistris Greene caused to be digged out of the ground, she being an eye-witnesse amongst many others, of the manner of the falling.

'The forme of the Stone is three-square, and picked in the end: In colour outwardly blackish, somewhat like Iron: Crusted ouer with that blacknesse about the thicknesse of a shilling. Within it is soft, of a grey colour, mixed with some kind of minerall, shining like small peeces of glasse.

'This Stone brake in the fal: The whole peece is in weight nineteene pound and a halfe: The greater peece that fell off weigheth fiue pound, which with other small peeces being put together, make foure and twenty pound and better....

'It is in the Countrey credibly reported that some other Thunder-stones have bin found in other places: but for certainty there was one taken at Letcombe, and is now in the custody of the Shriefe.'

This curious account is illustrated with a quaint woodcut, in the foreground of which the thunder-bolt seen by Mistress Green is being 'digged out of the ground.'

Big Ugly Rocks.

THE HAMMER OF GOD (1993) by Arthur C. Clarke is a novel set in the year 2110, when the asteroid Kali was discovered inbound for Earth on a collision course. A spaceship was sent to deflect it, with a nuclear warhead missile as a

backup. Earth was saved, just barely, but it did get its hair mussed. A standard action-adventure novel.

Clarke wrote in a distinctive style. It was a blend of factual infodumps, narrative infodumps to move the fiction along, wishful utopian lectures, and a paean to practical science and engineering. He kept the chapters short, and mixed the infodumps and story lines. The novel moved briskly and pulls the reader along with it. Worth reading.

Hi Yo, Meteorite!

While searching the Internet for something else, I stumbled across a 4-episode story in the old-time radio series THE LONE RANGER about the masked man's adventures with a meteorite. I had trouble finding all four installments, for peculiarly each had a different title instead of part numbers. The only way to discern them was by their original air dates.

Nor could I download them as individual episodes from www.otrrlibrary.org, because that series was only available as a huge number of unindexed 500 megabyte zip files. It would have taken about 200 gigabytes to download them all, unpack them, and then search the individual listings.

Normally I prefer that Website because they carefully check each episode and list them individually, but here they just lumped them into zip files. There were 2,956 half-hour episodes of the radio series, so it is understandable. (185 days of binge listening, assuming 8 hours per day.)

I finally found the individual episodes on www.archive.org. They were episodes #2182 to #2185. The set aired in 1947, "From Outer Space" on January 15, "Butterfield Stage Meteor" on January 17, "Silver Bullet" on January 20, and "Rays Of The Sun" on January 22. All episodes were written by Fran Striker. I'll review them as a single story because that was indeed what they were.

The Lone Ranger was asked by the American federal government to help guard a shipment of meteorite fragments from California to Saint Louis. The meteorite had fallen sixty years before but was not discovered until recently. It was said to be from the Andromeda constellation.

While not common, meteorites are not so rare that other countries might want to steal them. The stated reason for this story was that this particular meteorite had some rare chemicals in it that would alter the course of history, etcetera. Apparently the chemical element did not exist on Earth, and the only source was meteorites. The story is an extended MacGuffin chase.

Two previous shipments had been stolen. The Ranger's problem was not so much guarding the chest of meteorite fragments but spotting the potential thieves. They had been identified as foreign spies. In those days before photo ID, trying to pin a make on them was very difficult. The meteorite was worthless to ordinary thieves, but a government could do something with them and isolate the rare chemicals.

Third time wasn't so lucky and two men died, with the third shipment stolen by foreign agents. The Ranger and Tonto tracked the third shipment to a secret cave and in the ensuing gun battle managed to capture the spies and retrieve the meteorite fragments. After more expository dialogue, the fragments finally made it to the research laboratory.

I don't ordinarily listen to old-time radio westerns any more than I read them. These episodes didn't encourage me. The leading actors read their lines flat, although the supporting actors managed to get some emotion into their voices. Much of the story was narrated by an announcer. Lots of gunfire to keep the audience from nodding off. Often considered as a kiddie show, it was said that half the audience were adults.

SEEN IN THE LITERATURE

The Fermi-LAT Collaboration (2018) A gamma-ray determination of the Universe's star formation history. SCIENCE 362:1031-1034

Speirs: Modern scientific papers routinely have dozens of authors, which is why I commonly list them with "et al". Particle or astro-physics papers such as this one can have a hundred or more authors, so now the trend is to list the committee name.

Authors' abstracts: How many stars have formed in the Universe, and when did they do so? These fundamental questions are difficult to answer because there are systematic uncertainties in converting the light we observe into the total mass of stars in galaxies. The Fermi-LAT Collaboration addressed these questions by exploiting the way that gamma rays from distant blazars propagate through intergalactic space, which depends on the total amount of light emitted by all galaxies.

The collaboration found that star formation peaked about 3 billion years after the Big Bang. Although this is similar to previous estimates from optical and infrared observations, the results provide valuable confirmation because they should be affected by different systematic effects.

The light emitted by all galaxies over the history of the Universe produces the extragalactic background light (EBL) at ultraviolet, optical, and infrared wavelengths. The EBL is a source of opacity for gamma rays via photon-photon interactions, leaving an imprint in the spectra of distant gamma-ray sources.

We measured this attenuation using 739 active galaxies and one gamma-ray burst detected by the Fermi Large Area Telescope. This allowed us to reconstruct the evolution of the EBL and determine the star formation history of the Universe over 90% of cosmic time. Our star formation history is consistent with independent measurements from galaxy surveys, peaking at redshift $z \sim 2$. Upper limits of the EBL at the epoch of reionization suggest a turnover in the abundance of faint galaxies at $z \sim 6$.

Bialy, S., and A. Loeb (2018-10-30) **Could solar radiation pressure explain 'Oumuamua's peculiar acceleration?** arXiv:1810.11490v2 [astro-ph.EP] Preprint at www.arXiv.org

Authors' abstract: 'Oumuamua (11/2017 U1) is the first object of interstellar origin observed in the Solar System. Recently, Micheli et al. (2018) reported that 'Oumuamua showed deviations from a Keplerian orbit at a high statistical significance. The observed trajectory is best explained by an excess radial acceleration Da μ r^2 , where r is the distance of 'Oumuamua from the Sun. Such an acceleration is naturally expected for comets, driven by the evaporating material. However, recent observational and theoretical studies imply that 'Oumuamua is not an active comet.

We explore the possibility that the excess acceleration results from Solar radiation pressure. The required mass-to-area ratio is (m=A) 0:1 g cm⁻². For a thin sheet this requires a width of 0:3 to 0:9 mm. We find that although extremely thin, such an object would survive an interstellar travel over Galactic distances of 5 kiloparsecs, withstanding collisions with gas and dust-grains as well as stresses from rotation and tidal forces. We discuss the possible origins of such an object including the possibility that it might be a lightsail of artificial origin. Our general results apply to any light probes designed for interstellar travel.

Estrela, R., et al (2018) **Superflare ultraviolet impact on Kepler-96 System: A glimpse of habitability when the ozone layer first formed on Earth.** ASTROBIOLOGY 18:doi.org/10.1089/ast2017.1724

Authors' abstract: Kepler-96 is an active solar-type star harboring a Super-Earth planet in close orbit. Its age of 2.3 gigayears is the same as the Sun when there was a considerable increase of oxygen in Earth's atmosphere due to micro-organisms living in the ocean.

We present the analysis of superflares seen on the transit light curves of Kepler-96b. The model used here simulates the planetary transit in a flaring star. By fitting the observational data with this model, it is possible to infer the physical properties of the flares, such as their duration and the energy released.

We found three flares within the energy range of superflares, where the biggest superflare observed was found to have an energy of $1.81 \times 10~J~(1.81 \times 10~ergs)$. The goal is to analyze the biological impact of these superflares on a hypothetical Earth in the habitable zone of Kepler-96, assuming this planet has protection through different scenarios: an Archean and present-day atmospheres. Also, we compute the attenuation of the flare ultraviolet (UV) radiation through an Archean ocean.

The conclusion is that considering the increase in the UV?ux by the strongest superflare emission, Escherichia coli and Deinococcus radiodurans could survive on the surface of the planet only if there was an ozone layer present on the planet atmosphere. However, they could escape from the hazardous UV effects at a depth of 28 and 12 m below the ocean surface, respectively. For smaller superflares contribution, D. radiodurans could survive in the surface even in an Archean atmosphere with no ozone.

Neveu, M., et al (2018) **The ladder of life detection.** ASTROBIOLOGY 18:doi.org/10.1089/ast.2017.1773

Authors' abstract: We describe the history and features of the Ladder of Life Detection, a tool intended to guide the design of investigations to detect microbial life within the practical constraints of robotic space missions. To build the Ladder, we have drawn from lessons learned from previous attempts at detecting life and derived criteria for a measurement (or suite of measurements) to constitute convincing evidence for indigenous life. We summarize features of life as we know it, how specific they are to life, and how they can be measured, and sort these features in a general sense based on their likelihood of indicating life.

Because indigenous life is the hypothesis of last resort in interpreting life-detection measurements, we propose a small but expandable set of decision rules determining whether the abiotic hypothesis is disproved. In light of these rules, we evaluate past and upcoming attempts at life detection. The Ladder of Life Detection is not intended to endorse specific biosignatures or instruments for life-detection measurements, and is by no means a definitive, final product. It is intended as a starting point to stimulate discussion, debate, and further research on the characteristics of life, what constitutes a biosignature, and the means to measure them.

Features are listed in Ladder rungs that distinguish to which trait of life (Darwinian evolution, growth, reproduction, metabolism, etc.) the corresponding features pertain. A bottom rung regroups all measurements needed to establish the habitability of a setting.

[Ladder of Life, from top to bottom rung]

Darwinian evolution

Growth and reproduction

Metabolism

Functional molecules and structures

Potential biomolecule components

Potential metabolic byproducts

Biofabrics

Georgieva, M.N., et al (2018) **Microbial-tubeworm associations in a 440 million year old hydrothermal vent community.** PROCEEDINGS OF THE ROYAL SOCIETY OF LONDON 285B:dx.doi.org/10.1098/rspb.2018.2004

Authors' abstract: Microorganisms are the chief primary producers within present-day deep sea hydrothermal vent ecosystems, and play a fundamental role in shaping the ecology of these environments. However, very little is known about the microbes that occurred within, and structured, ancient vent communities. The evolutionary history, diversity and the nature of interactions between ancient vent microorganisms and hydrothermal vent animals are largely undetermined.

The oldest known hydrothermal vent community that includes metazoans is preserved within the Ordovician to early Silurian Yaman Kasy massive sulfide deposit, Ural Mountains, Russia. This deposit contains two types of tube fossil attributed to annelid worms. A re-examination of these fossils using a range of microscopy, chemical analysis and nano-tomography techniques reveals the preservation of filamentous microorganisms intimately associated with the tubes.

The microfossils bear a strong resemblance to modern hydrothermal vent microbial filaments, including those preserved within the mineralized tubes of the extant vent polychaete genus Alvinella. The Yaman Kasy fossil filaments represent the oldest animal-microbial associations preserved within an ancient hydrothermal vent environment. They allude to a diverse microbial community, and also demonstrate that remarkable fine-scale microbial preservation can also be observed in ancient vent deposits, suggesting the possible existence of similar exceptionally preserved microfossils in even older vent environments.

Sallan, L., et al (2018) The nearshore cradle of early vertebrate diversification. SCIENCE 362:460-464

Authors' abstract: We assembled fossil vertebrate occurrence and habitat data sets spanning the middle Paleozoic (480 million to 360 million years ago) and found that early vertebrate clades, both jawed and jawless, originated in restricted, shallow intertidal-subtidal environments.

Nearshore divergences gave rise to body plans with different dispersal abilities: Robust fishes shifted shoreward, whereas gracile groups moved seaward. Fresh waters were invaded repeatedly, but movement to deeper waters was contingent upon form and shortlived until the later Devonian.

Our results contrast with the onshore-offshore trends, reef-centered diversification, and mid-shelf clustering observed for benthic invertebrates. Nearshore origins for vertebrates may be linked to the demands of their mobility and may have influenced the structure of their early fossil record and diversification.

Penn, J.L., et al (2018) **Temperature-dependent hypoxia explains biogeography and severity of end-Permian marine mass extinction.** SCIENCE 362:doi.org/10.1126/science.aat1327

Authors' abstract: Though our current extinction crisis is substantial, it pales in comparison to the largest extinction in Earth's history, which occurred at the end of the Permian Period. Referred to as the "Great Dying," this event saw the loss of up to 96% of all marine species and 70% of terrestrial species.

Climate change triggered by volcanic greenhouse gases is hypothesized to have caused the largest mass extinction in Earth's history at the end of the Permian Period (~252 million years ago). Geochemical evidence provides strong support for rapid global warming and accompanying ocean oxygen loss, but a quantitative link among climate, species' traits, and extinction is lacking.

To test whether warming and oxygen loss can mechanistically account for the marine mass extinction, we combined climate model simulations with an established ecophysiological framework to predict the biogeographic patterns and severity of extinction. Those predictions were confirmed by a spatially explicit analysis of the marine fossil record.

Extinction intensity should have been lower in the tropics than at high latitudes. The cause of lower tropical extinction is that organisms initially inhabiting these warm, low-oxygen environments can better exploit those conditions when they arise globally, whereas the habitats of more polar species disappear completely. The combined physiological stresses of ocean warming and oxygen loss largely account for the spatial pattern and magnitude of extinction observed in the fossil record of the "Great Dying." These results highlight the future extinction risk arising from a depletion of the ocean's aerobic capacity that is already under way.

AS I STROLLED OUT ONE DAY

photos by Dale Speirs

8 Avenue South in downtown Calgary from 4 Street SW to Macleod Trail SE is a pedestrian mall. It is blocked off at the east end by the People's Palace, officially known as the New Municipal Building, although since it is three decades old by now, the title wants changing. The back side of the Municipal Building is 3 Street SE, down which I never had any reason to walk until the new Central Library opened on November 1 (see OPUNTIA #428).



Now that it is on my regular route, I spotted some new sidewalk markings to add to my collection (see OPUNTIA #399).

The handprint is near a back door by the loading dock, where City employees who are smokers huddle, it not being allowed in any public building.

The plaque is by the back door of the building, which is directly across from the new library.

I and many others now walk across the street from the library, short-cut through the Municipal Building, and come out on the other side at Macleod Trail, where the mall begins. We then walk west down the mall.





Exiting out the far side of the Municipal Building, this is the view (left photo) looking west past Macleod Trail. The strange skyscraper under construction is the Telus tower. The bottom half of the tower are office suites. The 29th floor will be a fitness centre, and the top half will be residential apartments.

The centre and right photos, taken at 1 Street SE and Centre Street respectively, show how the shape of the new tower changes depending on the angle.







ZINE LISTINGS

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

[The Usual means \$5 cash (\$6 overseas) or trade for your zine. Americans: please don't send cheques for small amounts to Canada or overseas (the bank fee to cash them is usually more than the amount) or mint USA stamps (which are not valid for postage outside USA). US\$ banknotes are still acceptable around the world.]

FOR THE CLERISY #89 (The Usual from Brant Kresovich, Box 404, Getzville, New York 14068-0404) Reviewzine of older books. In this issue, the Oz books by L. Frank Baum, Peter Pam, and one of Jane Austen's unreadable novels (aren't they all?).

LETTERS TO THE EDITOR

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

FROM: Theo Nelson Calgary, Alberta 2018-12-21

[His quarterly mail art postcard is shown at right.]

I Also Heard From: Lloyd and Yvonne Penney (Etobicoke, Ontario), Joseph Major (Louisville, Kentucky), Garth Spencer (Vancouver, British Columbia)

