OPUNTIA 437

Early March 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.

ABOUT THE COVER: The cover is a photo I took showing Calgary during a typical white-out blizzard. Okay, I'm kidding but only just a little.



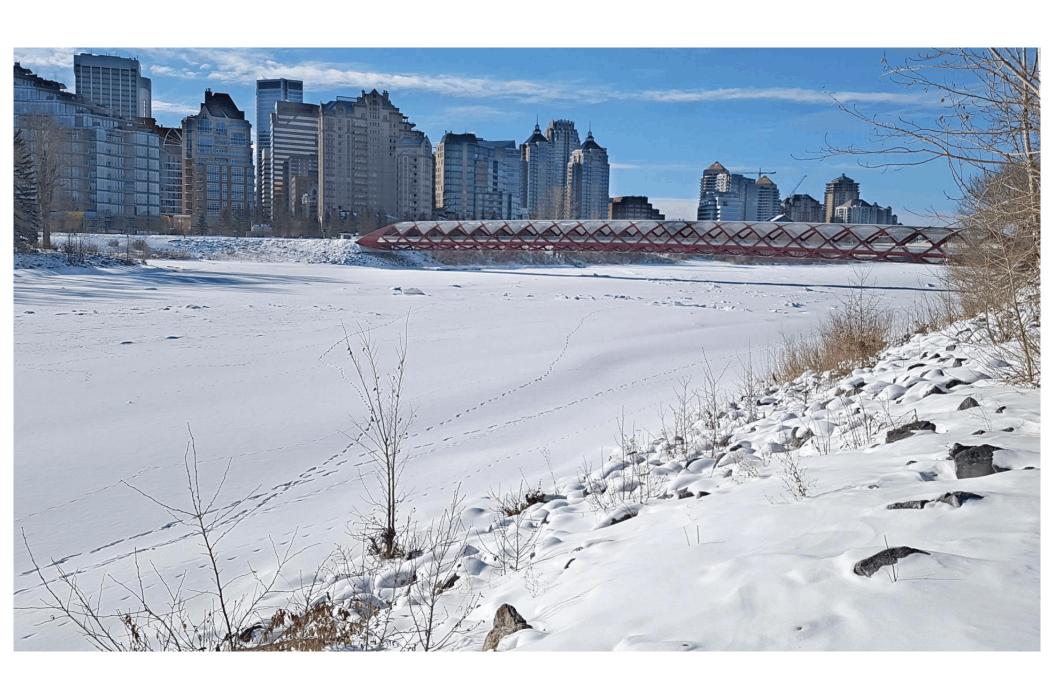
photos (actual ones this time) by Dale Speirs

At right: Animals are just as lazy as humans, a case in point being the snowshoe hares who travel across my yard on the diagonal instead of using the sidewalk and hopping around the corner.



On February 28 I went for a stroll along the Bow River, which forms the northern boundary of the downtown core.

The pedestrian bridge over the river is the Peace Bridge, a name chosen because it offended no one. Notice the snowshoe hare tracks along the river.



Seen from the other side of the bridge. Notice the human tracks across the river. The water is only a metre deep under the ice, but is so cold that anyone breaking through the ice instantly goes into shock.

The current then pulls them under the ice where they drown. Their bodies are not recovered until after spring thaw, usually several kilometres downstream. Happens about two or three times every winter. Whoever made these tracks got lucky and made it across.



Continuing back the other bank from the bridge is this view of the channel that separates Prince's Island from the downtown core.

Set a spell and relax.



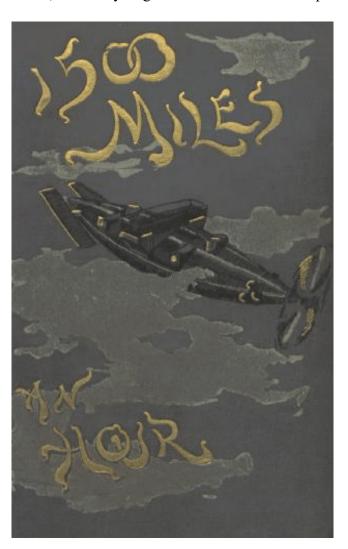
LET MARS DIVIDE ETERNITY IN TWAIN: PART 13

by Dale Speirs

[Parts 1 to 12 appeared in OPUNTIAs #310, 321, 328, 332, 337, 354, 357, 369, 372, 384, 401, and 429. Reviews of the WAR OF THE WORLDS movies appeared in #289.]

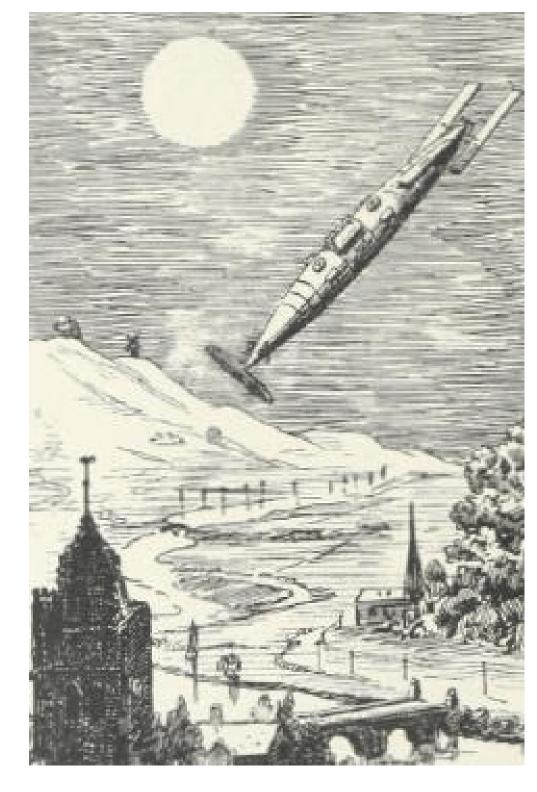
Palaeo Mars.

FIFTEEN HUNDRED MILES AN HOUR (1895) by Charles Dixon is a novel about a trip to Mars, available from www.gutenberg.org. Pretty much a stereotypical lost-world type of story. Someone found a manuscript under strange circumstances and was publishing it so that the writer's story might be told to the world. The writer was Dr Hermann, who had built a spaceship, the Sirius, funded by English millionaire John Temple.



The cover of the book and an interior page depict the Sirius. As a close inspection will reveal, the two artists had not communicated with each other and the rear a redifferences.

At left is the cover; at right is the ship leaving Earth.



A-roving they went to the red planet, as Hermann explained to Temple in an actual "As you know" lecture.

"As you know," continued the Doctor, "I have long been an ardent supporter of the theory of the plurality of worlds. I am a firm believer in the principle of Universal Law; and the theory that these other worlds are the abode of living organisms is to me an almost demonstrable fact. When I first began the study of this interesting question I soon came to the conclusion that the only planet with which I dared hope to obtain any success must be one whose conditions were as nearly like those of our own world as possible."

"So far as I know, only one orb in the entire planetary system can with any degree of fairness be compared with Earth. That planet is Mars. In short, the beautiful planet Mars is precisely similar in nearly every physical aspect to the Earth; it is, in fact, only a smaller edition of our own world."

The spaceship was powered by electricity. Hermann explained that instead of inefficient coal, the electricity would be generated by petroleum. Before you laugh, remember that in 1895, there was little use for petroleum beyond lamps and lubricants. It wasn't until the first decade of the 1900s that it became a wonder stuff.

"First, as to my means of conveyance. I have here a design for an air carriage, propelled by electricity, capable of being steered in any direction, and of attaining the stupendous speed of fifteen hundred miles per hour. It can be made large enough to afford all necessary accommodation for at least six persons, and its attendant apparatus is capable of administering to their every requirement."

After explaining a number of its details, he goes on to say: "Here, again, is the exact model of another apparatus for making and storing electricity sufficient for at least two years, working at high pressure. And herein perhaps is the greatest of my discoveries."

"The one grand problem which electricians have to solve before this force can be of any great advantage to mankind is the method of generating it direct, without the aid of any other motive power. I have solved that problem; and have succeeded by the aid of this curious apparatus in producing electricity direct, not from coal, but from petroleum." "By this wonderful invention I am able to carry enough fuel for our journey, compressed into a space that is practicable for all requirements, and the alarming waste of energy that now troubles the electrical engineer is saved."

"The labour of the world will now be revolutionised when I choose to make my discovery known; for the reign of steam, glorious and wonderful as it has been, will then be over. I can carry in my hand enough fuel to drive the biggest steamer that ploughs the ocean, once round the world."

Off they went on a 30-month voyage to Mars. All sorts of trouble and strife en route, what with meteor showers roaring and cracking through space. There was always something in the Sirius that needed fixing. Just like owning a car. The Mars landing led to a fresh set of adventures with ugly monsters and a primitive society of inhabitants. Like Buck Rogers, only not as modern. Barsoom without the amenities.

This is a novel that is best suited to reading on your smartphone a chapter or two at a time as you commute to work on the bus.

Getting There Is Half The Fun.

"Terminal" by Lavie Tidhar (2018, in the anthology WORLDS SEEN IN PASSING, edited by Irene Gallo) is a concept story about emigrants from Earth traveling to Mars in swarms of tin can spacecraft. Cheap one-passenger one-way vehicles that might hold together long enough to make the trip. If they malfunction en route or the passenger has a serious medical emergency, then tough luck.

In OPUNTIA #422, I reviewed the movie JOURNEY TO THE FAR SIDE OF THE SUN, about a voyage to a doppelganger Earth. "Welcome, Martians" by S.A. Lombino (1952 May, WORLDS OF IF) is an earlier version of doppelganger planets. Two humans landed on Mars, the first to do so, and were astonished to find a human culture welcoming them back from their historic voyage to Earth. Meanwhile, two Martians land on Earth and likewise were welcomed back to a planet they had never been before.

See Mars And Die.

"Great Wall Of Mars" by Alastair Reynolds (2000 February, SPECTRUM SF#1) is about a war against a Mars occupied by hive-mind humans called

Conjoiners. A team of Earthlings went down to the surface on a diplomatic mission. An earlier attempt at terraforming had resulted in a towering circular Wall, designed to keep in an oxygen atmosphere created by the first colonists. Now the Conjoiners had nests inside the Wall.

The delegation's shuttle crashed just outside the Wall, having flown too low and then snatched by a giant robotic worm. The Ouroborus worms were left over from a previous phase of the war. They were autonomous war machines that refused to deactivate themselves. The survivors of the crash were rescued by the Conjoiners.

From there it was a Welcome to Utopia! story, the clichéd kind where a smarmy guide showed them all the wonders of perfection. As per standard utopian narrative, the guide was a compulsive lecturer, using enough infodumps to annoy David Weber.

The Conjoiners were aware that there would always be war with Earthlings. They had secretly converted Phobos into a starship, and were going to head off for a new stellar system a la the Mormons. They wanted to find a place where they could live free of harassment. Mars was a dead end for both sides.

"The New Martian Way" by Brendan DuBois (2019 Mar/Apr, ANALOG) is a murder mystery set on Mars. It was the early days, before real colonies and the inevitable need for real law enforcement. One of the scientists had been pushed out of an airlock without benefit of a spacesuit.

The motive was something that Terrans would not consider cause for homicide, but Mars pioneers would. When cooped up inside a landing ship for long periods of time, personal hygiene really matters. One scientist scorned taking regular showers and paid for it the hard way. People have died on Earth for less.

"The God Of All Mountains" by Jo Miles, in the same issue of ANALOG, is yet another story about a quest to climb Olympus Mons. This time a Chilean woman wanted to be the first to ascend the volcano for the glory of her country and eternal fame. She had to beat a well-equipped team who had many advantages, including their own news team following them. There are no prizes for guessing who was first. Nothing special about this story. Many previous variants have been published (see previous installments of this column) and it almost seems to be a sub-genre in its own right.

WINTER WONDERLANDS: PART 2

by Dale Speirs

[Part 1 appeared in OPUNTIA #405.]

Southern Alberta had a mild winter over the 2018/19 season to the end of January, with temperatures mainly in the -5° to -15°C range. The month of February and first week of March were chilly, with -25°C. There was enough snow to make a winter wonderland for the excessively sentimental who don't have to shovel their own sidewalks..

Snow Business.

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. Those were its glory days. It then straggled on as a 15-minute show in a studio without an audience. From 1957 to 1959 it was a 4-minute act on a radio variety show before finally being put out of its misery. The episodes were mostly written by Don Quinn, and are available as free mp3s from www.otrrlibrary.org.

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. Each episode had a parade of regular characters calling upon the McGees for a few minutes of gags, and then departing to make way for the next.

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, furniture polish, and car wax.

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 wax and polish, and why the Johnson brand was the best.

"Fibber's New Barometer Indicates Snow" was first aired on May 11, 1943. Note that date well. Fibber's latest toy was a barometer he had just purchased. The reading on it indicated there would be snow tomorrow, at which everyone scoffed. They didn't believe it could snow on May 12.

Since other episodes had snow in winter, the McGees must have lived in a midtier state. They had repeatedly mentioned that they had emigrated from Peoria, Illinois, so it wasn't that state. It must have been a mountain state or fairly northerly. Snow in May is not unusual in northern states. My home province of Alberta always has its final snowfall of the winter in May and once every ten or fifteen years we have a blizzard on the Victoria Day weekend.

Fibber having gone out on a limb by his barometer's prediction, he then wandered about the house trying to find a spot for it. He couldn't put it in the kitchen because the heat and humidity from cooking might throw it off. As he searched for a suitable spot, he was constantly interrupted by the supporting characters, each of whom laughed at his prediction.

The Old Timer showed up, but didn't go along with the barometer. He preferred a more reliable indicator, the rheumatism in his bones, which ached before a storm arrived. Socialite Mrs Abigail Uffington came by with an invitation for the McGees to attend her garden party on the 12th. She of course did not take seriously Fibber's warning that the party would be snowed out.

Harlow Wilcox appeared but was undismayed by Fibber, and used the prediction as an excuse to launch into a spiel about how Johnson's car wax protected vehicles against all kinds of weather. Two more characters came and went with the same response. Fibber was a prophet without honour in his own country.

A telephone call came for Fibber from the store that had sold him the barometer. By mistake they had given him a dummy barometer meant as a display, and asked him to come round tomorrow for a replacement. Fibber only then noticed that the barometer needle was just an image painted on cardboard.

With a heavy heart, he went to bed, realizing that once more he would have made a fool of himself. Came the morning and what did he see when he sprang out of bed? It had indeed snowed overnight. A twist ending on the usual Fibber-is-a-fool ending of the episodes.

Cozy Mysteries: Snow Globes.

Just as there is a Website for every interest, no matter how ridiculously specialized, so it is that there seems to be a cozy mystery series likewise. SNOW WAY OUT (2015) by Christine Husom was the first novel in a cozy series titled the Snow Globe Shop Mysteries.

In this series, the protagonist was Camryn Brooks, who owned a curio shop specializing in snow globes. It was located in the small Minnesota town of Brooks Landing, so one hopes that she did sufficient Internet business to keep the store solvent.

Brooks and her friend Alice Nelson, who operated the coffee shop next door, put on a snow globe making class. After it was over, Brooks found one globe left behind, that of a man sleeping on a park bench. Peculiar, but she shrugged it off. Walking home, she saw a man on a park bench, but he wasn't sleeping. He had a knife in his back, and with that the plot began moving.

Brooks was dumb enough to put her hand on the knife handle, leaving fingerprints. She told police about the snow globe but when they took her to the shop for a look, it was gone. A good way to become the prime suspect.

The victim was known to police. He had returned to town after doing hard time in prison, and was causing all kinds of trouble just by his presence. Some townsfolk vowed revenge, and others were frightened enough that they might have gone off the deep end.

Brooks started her amateur sleuthing in self-defense. Lots of soap operas were going on in town, with many who had motive. As she traveled about, stirring up trouble everywhere, the list of suspects grew. She herself wasn't any too popular either.

Another mysterious snow globe appeared on her store shelves, one with a park scene, three children, and a police officer. She set it aside on a table out in the open and when she came back later for it, the globe had gone missing. Of course it had. One wonders why she didn't at least lock it in a desk drawer.

As events unfolded, Brooks found out that she was adopted and that the murderer was her unknown father. Given her lack of attention to details, weak will, constantly forgetting to lock up her shop or house, and her lackadaisical approach to life, the reader was not entirely unsurprised at the sudden turn of events. An implausible ending because the information about her father was brought in too late to be credible.

The sequel novel was THE ICED PRINCESS (2015). Camryn Brooks and Alice Nelson needed help for their stores, so they ended up hired Molly Dalton, a rich socialite. Why such a woman needed a job was explained by herself as boredom from rattling around in a mansion all day with nothing to do.

Dalton wasn't much of a waitress but that didn't matter as someone poisoned her coffee with cyanide. Brooks and Nelson went once more unto the breach and laid on into their Marpleing. They never cried "Hold, enough!" even though they had several confrontations with the bad guys, who were working several plots simultaneously.

Diversions included a jealous woman smashing a Marilyn Monroe snow globe, just to remind people what this cozy was themed about. A nod to the economics of snow globe selling was added with an account about buying and selling antique or oddball snow globes.

The murderer was a husband who wished to avoid the expense of a divorce so he could trade up to a trophy wife, but there was more to the story than that. Brooks was still weak-willed enough to provide the idiot in the idiot plot, and clumsy enough to give herself away when a normal person could have walked out of the scene and into the police station without trouble.

FROSTY THE DEAD MAN (2016) was somewhat better. Brooks was asked by Mayor Lewis Frost to take a seat on the town council. She went to his office to discuss the idea, only to find him dead. One of her snow globes, which had a tableau of an armed man and three bears, was found shattered on the rug, along with a large diamond.

Frosty, as he was known to his friends and his even more numerous enemies, was involved in lots of political controversies. Brooks, meanwhile, was puzzled by a recent batch of snow globes she imported from a Dutch company, which included the one with the bears. Other people seemed interested in that particular globe, too interested. Frosty had come in to her shop discuss politics with Brooks. He had noticed the globe and bought it on impulse. That apparently cost him his life. Other globes were stolen from her store later.

After Frosty's murder, and in between running a snow globe shop and arguing local politics, Brooks was busy sleuthing. It was amazing how many customers came through her shop buying globes. Calgary has 1.2 million people and I doubt a snow globe shop could stay open more than a month here. The economics of cozies are different though, and rural Miss Marples can make a living from such businesses.

It becomes obvious to the reader, several chapters before Brooks figured it out, that her shop is being used as a front for diamond smuggling. The diamonds were hidden in the bases of the Dutch globes and were shipped by courier.

The American agents of the smugglers tracked the shipping number and knew exactly when they had arrived in Brooks Landing. They could then time their arrival as customers and buy the globes. Except, of course, Frosty beat them to the punch on one occasion, which cost him his life. A rather improbable methodology, but that never stopped a cozy mystery author. An average read.

Not So Cozy Mysteries.

Leslie Charteris made his reputation with his series about The Saint, real name Simon Templar, a Robin Hood character who first appeared in print in 1928 and lasted into the 1990s. Besides about 100 novels and short stories, The Saint appeared in movies, on stage, radio, and television.

The best portrayal on the radio series was done by that gentlemanly actor Vincent Price. His cultured voice and snappy lines were the epitome of the character. (This and other OTR shows are available as free mp3s from www.otrrlibrary.org.)

One such episode, from 1950, was "It's Snow Use", no writer credited. The opening was Templar being hired by Peggy to protect her from her last husband Charlie, who resented paying alimony. Peggy had married multiple times, such that when Templar asked her surname, she couldn't think which one applied at the moment.

They went to a ski resort where Peggy for to have it out with Charlie and his current wife Vicky. She asked Templar to pose as her latest husband, although she didn't think that through, since that would cut her off from alimony. Peggy played what vaudevillians referred to as a Dumb Dora part, where the audience wondered how she survived past childhood because of her stupidity.

However, she survived the ski resort. Charlie didn't, having disappeared from his hotel room. At the same time, Templar noticed a snowman by the building which kept changing locations. He tracked it down to a subsequent spot, built a fire by it, and had his suspicions confirmed when out of the meltwater emerged Charlie, now a corpsicle.

One detail he noticed was that Charlie was wearing one red sock and one green sock. This enabled him to catch the murderer, who was colour blind. The culprit had killed Charlie in his room, dressed him, and packed snow around him because it was easier to move a snowman in public than a dead body.

WORLD WIDE PARTY ON JUNE 21

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

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

At 21h00, face to the east and salute those who have already celebrated. Then face north, then south, and toast those in your time zone who are celebrating as you do. Finally, face west and raise a glass to those who will celebrate WWP in the next hour.

Raise a glass, publish a one-shot zine, have a party, or do a mail art project for the WWP. Let me know how you celebrated the day.

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: Joseph Major Louisville, Kentucky 2019-02-19

[Re: The original Avengers] With a title like TOO MANY TARGETS (1990) one would think a Nero Wolfe novel was to hand. But this is an ultimate John Steed Avengers novel. It has Steed and most of his associates, from Dr. David Keel down to Tara King, plus Mother, facing the Cybernauts. Oddly enough, one of the authors is named John Peel. And that seems to be his real name, too.

There are enough used copies floating around that you can get one for as little as \$2(US). The appeal seems to be mainly to devoted fans. The site where I looked this up is: www.johnsteedsflat.com

[I checked that Website and its listing of original Avengers novels is as follows, not including fanfic or later novels out of period. Full bibliographic details on the Website.]

Douglas Enefer, THE AVENGERS, 1963

Patrick Macnee and Peter Leslie, DEADLINE, 1965 Patrick Macnee and Peter Leslie, DEAD DUCK, 1966

John Garforth, THE FLOATING GAME, 1967 John Garforth, THE LAUGH WAS ON LAZARUS, 1967 John Garforth, THE PASSING OF GLORIA MUNDAY, 1967 John Garforth, HEIL HARRIS!, 1967

Keith Laumer, THE AFRIT AFFAIR, 1968 Keith Laumer, THE DROWNED QUEEN, 1968 Keith Laumer, THE GOLD BOMB, 1968

Norman Daniels, THE MAGNETIC MAN, 1968 Norman Daniels, MOON EXPRESS, 1969 FROM: Lloyd Penney Etobicoke, Ontario 2019-02-23

OPUNTIA #435: [Re: Lunar New Year] Well, I was born in 1959, so this is my year, the Year of the Pig or Boar. Neither sounds too good, I admit. I have also read that when it is your own year, you may not be too lucky that year. I hope to buck the trend.

[Mine is Year of the Goat or Ram, for 1955, which doesn't sound much better.]

I didn't get to any celebrations, but we did have our choice. Toronto is big enough to have at least two Chinatowns, and neighbouring Mississauga had its own celebrations as well. Its small Chinese area has its own gate, which is a rarity on this continent.

[Calgary Chinatown has a ceremonial gate, but it is overshadowed by giant concrete lions on the Centre Street bridge which guard the north entrance to Chinatown, as well as newer lions on the western steps of the Chinese Cultural Centre. The bridge lions are actually Britannia style lions installed before Chinatown existed, but they have been adopted by the Chinese.]

I have the Complete Professor Challenger on my book shelves, but I had forgotten that there was a collection of Challenger stories from other authors. Some of the stories sound quite inviting, and as you say, such pastiches have to portray the characters accurately.

Typewriter Tales: You might have seen on a recent episode of MURDOCH MYSTERIES of how a manual typewriter was electrified in order to kill a contestant in a fast typing contest. I still have a couple of small manual typewriters in our locker, plus an IBM Selectric.

The Toronto Transit Commission uses what's called the Presto Card as a smartcard to be admitted to buses, streetcars and subways. Because of the usual (by now) problems Presto has to deal with, such as terminals and scanners that don't work, the TTC has lost several million dollars. All of the transit companies in the GTA, plus Ottawa, use Presto, but there are still plenty of problems connected with them.

[Calgary Transit still does everything on paper.]

The Chinese government uses what they call social credit to keep track of their billions of citizens. The more you are loyal to the government and the Party, the higher your social credit climbs. If your loyalty is questioned, your credit is low, and the government uses this to deny basic rights and air travel to close to 20 million people.

OPUNTIA #436: The exhibits of the Glow Festival reminds me of the Luminato Festival held here. We don't usually get to it because it is held through the night, and torn down as the sun comes up in the morning. The artistic installations are very nice, I am sure, but we don't often go looking for pictures from the previous night.

Food-based murder mysteries: I have enough trouble keeping my weight in line. Most years, the Canadian National Exhibition offers up something like the Bacon Donut Burger, guaranteed to clog your arteries and make your blood sugar soar. I can easily pass; I haven't been to the Ex in decades.

[I occasionally eat at a local hamburger outlet called Dragon's Lair Burger. I only eat the plain cheeseburger but their top end is the Dragon Slayer burger for \$21. 4 meat patties, 4 rashers of bacon, 3 slices of cheese, and about ten layers of condiments, spices, and sauces. Survivors get a hearty handshake of congratulations.]

John Steed and Emma Peel are who I think of when I see something about THE AVENGERS. I never knew about a Dr. Keel or a Dr. Gale, so I guess I watched whatever was sold to a Canadian station.

[I've never seen a Keel or Gale episode. They were never aired in Alberta when I was young. I'm waiting for a re-issue of the DVDs but not holding my breath.]

FROM: Ray Palm Plattsburgh, New York 2019-02-23

You've been getting some great images to include in OPUNTIA. I'm impressed with your night photography of the Glow Festival in the latest issue #436. Did you use manual exposure for those images? The right setting can be tricky in dark scenes.

[Yes. I run both my Nikon SLR and my Samsung Galaxy 7 smartphone

cameras on manual controls. Particularly for night photography such as the Glow Festival, it can be annoying for auto-flash to go off and bleach out the colours. Anytime I do use flash, it is strictly manual control. There is, of course, the problem of slow shutter speed when photographing blinking lights or motion at night.]

Re: your article on THE AVENGERS, the British TV series. I have a Gold Key comic book from 1968 that is titled JOHN STEED EMMA PEEL on the cover. But when you open up the comic the indicia states the title is THE AVENGERS. When you search for a copy online it's listed as JOHN STEED EMMA PEEL or as THE AVENGERS #1. That must cause confusion for a few collectors.

[The BBC messed up the trademarks for The Avengers and The New Avengers, which now belong to Marvel. It never went to court because the British version became extinct before the American version became big box office. BBC isn't going to spend huge sums on legal fees for what is now a marginal cult interest.]

[Marvel messed up in turn by assigning movie rights to Sony, Fox, and other producers for certain of its comic book characters. When Marvel decided to go into the movie business on its own, it couldn't buy back some of those rights. As a result, even though it owns the comic book versions, it can't use some of those characters in movies.]

Like THE MAN FROM U.N.C.L.E. television series, I enjoyed THE AVENGERS when it had wit and humor. But when both shows went BATMAN 1966 campy I gave up on them.

WHEN WORDS COLLIDE 2019

Calgary's annual readercon When Words Collide will be held on the weekend of August 9 to 11, 2019. The venue is the Delta South Marriott hotel on Southland Drive SE on Bonaventure Drive. A writing-centred convention, with an excellent dealer bourse where only books can be sold.

The membership is capped at 750 plus volunteers and guests, and always sells out by June, as do room reservations and banquet tickets. More details from: www.whenwordscollide.org

SEEN IN THE LITERATURE

Boyle, J.H., et al (2019) **Monarch butterfly and milkweed declines substantially predate the use of genetically modified crops.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:3006-3011

Authors' abstract: Monarch butterfly (Danaus plexippus) decline over the past 25 years has received considerable public and scientific attention, in large part because its decline, and that of its milkweed (Asclepias spp.) host plant, have been linked to genetically modified (GM) crops and associated herbicide use.

Here, we use museum and herbaria specimens to extend our knowledge of the dynamics of both monarchs and milkweeds in the United States to more than a century, from 1900 to 2016. We show that both monarchs and milkweeds increased during the early 20th century and that recent declines are actually part of a much longer-term decline in both monarchs and milkweed beginning around 1950.

Herbicide-resistant crops, therefore, are clearly not the only culprit and, likely, not even the primary culprit: Not only did monarch and milkweed declines begin decades before GM crops were introduced, but other variables, particularly a decline in the number of farms, predict common milkweed trends more strongly over the period studied here.

Bouyer, J., et al (2019) The ethics of eliminating harmful species: The case of the tsetse fly. BIOSCIENCE 69:125-135

Authors' abstract: Wildlife species harmful to humans are often targets of control and elimination programs. A contemporary example is the tsetse fly, a vector of sleeping sickness and African animal trypanosomosis.

Tsetse flies have recently been targeted by a pan-African eradication campaign. If it is successful, the campaign could push the entire tsetse family to extinction. With the emergence of effective and efficient elimination technologies, ethical assessment of proposed elimination campaigns is urgently needed. We examine the ethics of tsetse fly elimination by considering arguments predicated on both the instrumental and the intrinsic values of the species at local and global scales.

We conclude that, although global eradication of tsetse flies is not ethically justified, localized elimination campaigns targeting isolated populations are ethically defensible. We urge assessments of this kind be conducted regularly and in context, so that all relevant factors underlying decisions on species elimination are routinely laid bare for evaluation.

Humans have caused the extinction of wildlife species worldwide, likely initiating a sixth mass extinction event. The disappearance of most, if not all, of these species has been an unintended consequence of human population growth and related activities.

Recognizing the value and significance of biodiversity, global efforts to halt or reverse species loss have been coordinated, for example, by the International Union for Conservation of Nature and the United Nations Convention on Biological Diversity. Recently, however, humans have developed the technical capacities to purposefully eradicate undesirable species, such as insect vectors of a variety of pathogens.

Policymakers are now tasked to determine whether and to what ends such technologies should be used. The moral seriousness of this decision cannot be overstated. In the middle of the only known mass extinction to be caused by humans, all relevant factors underlying a decision to intentionally eliminate a species, whether a pest or not, should be laid bare and carefully evaluated as a part of responsible and informed ethical deliberation.

Hinz, H.L., et al (2019) **How safe is weed biological control? A global review of direct nontarget attack.** QUARTERLY REVIEW OF BIOLOGY 94:1-27

Authors' abstract: This review summarizes all known direct nontarget attack (NTA) cases of intentionally released or actively redistributed weed biological control agents, in order to allow for an objective risk-benefit analysis when choosing the most appropriate method for controlling invasive plants.

Of 457 agents intentionally released until 2008, 60 (13.1%) have been recorded attacking nontarget species in the field. Of 1517 releases made using the 457 agent species, 122 (8.0%) resulted in NTA. Both proportions have declined over time. Three-quarters of all NTA cases occurred on plant species in the same family as the target weed.

Approximately one-half of NTA cases were predicted/predictable. In the majority of unpredicted cases (93.5%), the respective nontarget plant species had not been tested pre-release. There were only four cases of "false negatives" (less than 1%), where the impacted plant species had been tested prerelease and deemed not at risk.

The incidences of unpredicted nontarget attack of intentionally released weed biocontrol agents decreased over time and this trend is thought to continue with scientific advancements. What is most needed is more systematic post-release monitoring to compare with prerelease host range testing to further advance the predictability of host use of biocontrol agents.

Will, M., et al (2019) **Midden or molehill: The role of coastal adaptations in human evolution and dispersal.** JOURNAL OF WORLD PREHISTORY 32:33-72

Authors' abstract: Coastal adaptations have become an important topic in discussions about the evolution and dispersal of Homo sapiens. However, the actual distribution and potential relevance of coastal adaptations (broadly, the use of coastal resources and settlement along shorelines) in these processes remains debated, as is the claim that Neanderthals exhibited similar behaviors.

To assess both questions, we performed a systematic review comparing coastal adaptations of H. sapiens during the African Middle Stone Age (MSA) with those of contemporaneous Neanderthals during the European Middle Paleolithic. In both species, systematic use of marine resources and coastal landscapes constitutes a consistent behavioral signature over ~100,000 years in several regions of Africa and Europe.

We found more similarities than differences between Neanderthals and modern humans, with remaining disparities all in degree rather than kind. H. sapiens exploited a wider range of marine resources, particularly shellfish, more intensively. MSA shellfish-bearing sites are also more often associated with intense occupations on coastal landscapes, and more evidence of complex material culture such as shell beads.

In terms of broader ramifications, Pleistocene coastal adaptations are best conceived of as an 'add-on' to previous adaptive strategies, complementing more frequently exploited inland resources and landscapes. Still, Neanderthals

and modern humans increased their dietary breadth and quality, and added options for occupation and range expansion along coastlines.

Potential evolutionary implications of these multigenerational behaviors include higher intakes of brain-selective nutrients as a basis for neurobiological changes connected to increased cognitive capacities, but also greater reproductive success, dispersal abilities and behavioral flexibility. Whether gradual differences between modern humans and Neanderthals stimulated different evolutionary trajectories is a question for future research.

Paulsson, B.S. (2019) Radiocarbon dates and Bayesian modeling support maritime diffusion model for megaliths in Europe. PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:/cgi/doi/10.1073/pnas.1813268116

Author's abstract: There are two competing hypotheses for the origin of megaliths in Europe. The conventional view from the late 19th and early 20th centuries was of a single-source diffusion of megaliths in Europe from the Near East through the Mediterranean and along the Atlantic coast. Following early radiocarbon dating in the 1970s, an alternative hypothesis arose of regional independent developments in Europe. This model has dominated megalith research until today.

We applied a Bayesian statistical approach to 2,410 currently available radiocarbon results from megalithic, partly premegalithic, and contemporaneous nonmegalithic contexts in Europe to resolve this long-standing debate. The radiocarbon results suggest that megalithic graves emerged within a brief time interval of 200 years to 300 years in the second half of the fifth millennium calibrated years BC in northwest France, the Mediterranean, and the Atlantic coast of Iberia.

We found decisive support for the spread of megaliths along the sea route in three main phases. Thus, a maritime diffusion model is the most likely explanation of their expansion. ... We argue for the transfer of the megalithic concept over sea routes emanating from northwest France, and for advanced maritime technology and seafaring in the megalithic Age.

Friberg, J. (2019) Three thousand years of sexagesimal numbers in Mesopotamian mathematical texts. ARCHIVE FOR HISTORY OF EXACT SCIENCES 73:183-216

Author's abstract: It is now well known that people in Mesopotamia and neighboring regions were using small clay figurines, so-called tokens, for as much as 5 millennia before the invention of writing (around 3300 BC), almost certainly for some kind of communication and archiving. Also known is that, a relatively short time before the invention of writing, groups of such tokens started to be enclosed in hollow clay balls, known as bullae, sometimes with indications on the outside about the contents. Such bullae have been found not only in the ancient Mesopotamian city Uruk, but also much further east, in the ancient city Susa in what is now Iran.

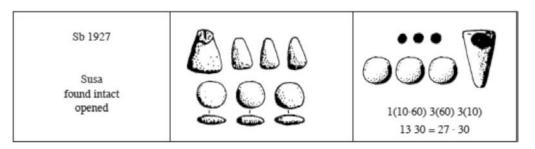
The Mesopotamian system of sexagesimal counting numbers was based on the progressive series of units 1, 10, 1·60, 10·60, It may have been in use already before the invention of writing, with the mentioned units represented by various kinds of small clay tokens. After the invention of proto-cuneiform writing, c. 3300 BC, it continued to be used, with the successive units of the system represented by distinctive impressed cup- and disk-shaped number signs.

Other kinds of "metrological" number systems in the proto-cuneiform script, with similar number signs, were used to denote area numbers, capacity numbers, etc. In a handful of known mathematical cuneiform texts from the latter half of the third millennium BC, the ancient systems of sexagesimal counting numbers and area numbers were still in use, alongside new kinds of systems of capacity numbers and weight numbers.

Large area numbers, capacity numbers, and weight numbers were counted sexagesimally, while each metrological number system had its own kind of fractional units. In the system of counting numbers itself, fractions could be expressed as sixtieths, sixtieths of sixtieths, and so on, but also in terms of small units borrowed from the system of weight numbers.

Among them were the "basic fractions" which we would understand as 1/3, 1/2, and 2/3. In a very early series of metro-mathematical division exercises and an equally early metro-mathematical table of squares (Early Dynastic III, c. 2400 BC), "quasi-integers" of the form "integer plus basic fraction" play a prominent role. Quasi-integers play an essential role also in a recently found atypical cuneiform table of reciprocals.

The invention of sexagesimal numbers in place-value notation, in the Neo-Sumerian period c. 2000 BC, was based on a series of innovations. The range of the system of sexagesimal counting numbers was extended indefinitely both upward and downward, and the use of quasi-integers was abolished. Sexagesimal place-value numbers were used for all kinds of calculations in Old Babylonian mathematical cuneiform texts, c. 1700 BC, while traditional metrological numbers were retained in both questions and answers of the exercises.



[Image from this paper]

Speirs: Ever wonder why a clock has 60 minutes? It's a legacy from 5,000 years ago.

Fox, J. (2019) Confronting Lord Haw-Haw: Rumor and Britain's wartime Anti-Lies Bureau. JOURNAL OF MODERN HISTORY 91:74-108

Author's extract: On May 30, 1940, Sidney House, a fifty-four-year-old clerk at the Mansfield labor exchange reported to police that three days earlier he had heard the German radio propagandist Lord Haw-Haw (William Joyce) threaten the occupation of local schools by German troops. The authorities set about verifying House's account.

The BBC Monitoring Service, which screened all foreign radio programs throughout the Second World War, checked its transcriptions of German broadcasts. No such threat was issued by the infamous radio announcer.

The police interviewed House again, this time warning him of the potential consequences of a false statement under the General Regulations of the 1939 Defence Act. House confessed that he had not personally heard the broadcast; instead he had "overheard some people talking about it as they passed my garden". ... House was charged with "unlawfully making a statement which

he knew to be false" and stood trial at Mansfield Magistrates Court in June 1940. ... House was found guilty and issued with a £10 fine and five guineas costs to be settled within one month.

Jordan, K.N., et al (2019) **Examining long-term trends in politics and culture through language of political leaders and cultural institutions.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:3476-3481

Authors' abstract: From many perspectives, the election of Donald Trump was seen as a departure from long-standing political norms. An analysis of Trump's word use in the presidential debates and speeches indicated that he was exceptionally informal but at the same time, spoke with a sense of certainty. Indeed, he is lower in analytic thinking and higher in confidence than almost any previous American president.

Closer analyses of linguistic trends of presidential language indicate that Trump's language is consistent with long term linear trends, demonstrating that he is not as much an outlier as he initially seems. Across multiple corpora from the American presidents, non-US leaders, and legislative bodies spanning decades, there has been a general decline in analytic thinking and a rise in confidence in most political contexts, with the largest and most consistent changes found in the American presidency.

The results suggest that certain aspects of the language style of Donald Trump and other recent leaders reflect long-evolving political trends. Implications of the changing nature of popular elections and the role of media are discussed.

Speirs: It is well known in psychology that the more ignorant a person is in general, then the more confident he is in expressing opinions about which he knows nothing. Twitter, Instagram, and Usenet before them have demonstrated this clearly.

My university training is in horticulture. When I took courses in botanical taxonomy, there was a saying that the further away from the field a botanist was, the more confident he was in identifying a plant species from a dried specimen.

de Melo, C.M., et al (2019) **Human co-operation when acting through autonomous machines.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 116:3482-3487

Authors' abstract: Recent times have seen an emergence of intelligent machines that act autonomously on our behalf, such as autonomous vehicles. Despite promises of increased efficiency, it is not clear whether this paradigm shift will change how we decide when our self-interest (e.g., comfort) is pitted against the collective interest (e.g., environment).

Here we show that acting through machines changes the way people solve these social dilemmas and we present experimental evidence showing that participants program their autonomous vehicles to act more cooperatively than if they were driving themselves. We show that this happens because programming causes selfish short-term rewards to become less salient, leading to considerations of broader societal goals.

We also show that the programmed behavior is influenced by past experience. Finally, we report evidence that the effect generalizes beyond the domain of autonomous vehicles. We discuss implications for designing autonomous machines that contribute to a more cooperative society.

Speirs: In other words, no road rage if you let your car drive itself. This makes sense, for after all, when we are passengers in buses or taxis, we let the driver worry about traffic and don't get so personally involved.

SIGNS, SIGNS, EVERYWHERE A SIGN

photos by Dale Speirs

At right, seen at a Calgary Transit kiosk where I buy my monthly pass. They usually only have two staff to service a lineup that extends out the door. Think of any DMV office or bank. I particularly liked how someone in the lineup corrected the grammatical error.







Electronic signs can be embarrassing when they fail. I love their error messages.



I had to change the battery on a smoke detector in my house. The manufacturer was no doubt worried someone might install a detector without a battery and then sue for damages.



