

# OPUNTIA 483





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

**AROUND COWTOWN: GLENMORE RESERVOIR** 2020-09-05  
photos by Dale Speirs

The Glenmore Dam was completed in 1933 and began supplying water and electricity to the growing town of Calgary. At the time, the reservoir was far out in the countryside. After World War Two, the suburbs reached it and sprawled far beyond. Today it is considered part of central Calgary. The dam blocks a canyon of the same name of the Elbow River. The river’s name is a translation of all the aboriginal tribe names, based on its numerous right angle turns as it meanders through Calgary.

The photo on the cover was taken just downstream of the dam, showing the autumn foliage and a typical S-bend of the river. Below is a view of the upstream side of the dam.

At right: The top of the dam is a heavily used bikeway and footpath that allows a major shortcut from one side of the city to the other.





Looking southwest over the reservoir.

This is where my drinking water comes from.







Looking south-southeast. The Glenmore Trail freeway crosses at a pinch point halfway along the reservoir which widens out again on the far side.







Left: Looking north, downstream toward the city core.

Below: Views of the spillway pond. This time of year the reservoir is accumulating water for the winter, so only enough is let through to keep the Elbow River from drying up completely.









**CURRENT EVENTS: PART 5**  
photos by Dale Speirs

[Parts 1 to 4 appeared in OPUNTIA's #474, 475, 479, and 480.]



I've mentioned Little Free Libraries and Little Free Pantries in past issues. This mini-art gallery was at 1022 - 1 Avenue NW in the Sunnyside district.

Photographing the exhibits was difficult because of all the glass reflections, so these are the best I can do.







Top left: These protestors at 12 Avenue SW and 8 Street in the Beltline district on August 26 had a point. The compulsory mask bylaw wasn't enacted until August 1, far too late for any good it might have done.

Bottom left: Someone will always find a way to make money for any event. Seen on 42 Avenue SW in the Altadore district.

Below: Again, difficult to photograph because of glass but I don't remember rock stars back then wearing surgical masks. Seen at a bus stop in Inglewood.







2020-09-12



My neighbour a few blocks away on Amiens Crescent SW continued with her weekly yarn bombing of her boulevard tree.

I took this photo on September 12, a week after schools opened. Not surprisingly there was an increase in COVID-19 cases.

Total Canadian cases as of September 12 were 135,494, of which there were 9,163 deaths. That's out of a population of 38 million

For comparison, 8,511 Canadian citizens died of influenza in 2018.

I'll let you calculate the percentages.



The 2020 economic collapse caused by the lockdown was three times worse than the Great Depression, measured either by dollar economic activity or by the unemployment rate. The federal deficit went from \$20 billion in 2019 to \$400 billion in 2020.

**Fiction.**

THE ZERO HOUR was a radio anthology series. Rod Serling narrated the intro and the outro in the same style as his television series. It is available as free mp3s from the Old Time Radio Researchers at [www.otrrlibrary.org](http://www.otrrlibrary.org)

“The Ghost Of The Black Plague”, written by Keith Walker, aired on 1974-07-10. It was set two centuries ago. Lord Alexander Wells planned to send his son Robert from England to Massachusetts to study medicine at Boston University.

The young man had just become engaged to Lorraine Duncan, whose father did not get along with his father. Neither parent wanted the marriage. Think Montague and Capulet. Just as the feud got underway, the Black Plague arrived in the English valley, so His Lordship hastened Robert’s departure to save him.

Lorraine was not allowed to go. She and her family became casualties of the plague. Robert’s father committed suicide from guilt. When the son returned from America four years later, he found a deserted manor. The plague killed 300 villagers before burning itself out.

Re-engaging a couple of the servants, including a young woman Sarah who had been in unrequited love with him, Robert began anew. The ghost of Lorraine quickly made its appearance in the manor, calling Robert for help. She said she was happy on the other side and wanted to be with him again.

She told him they could be reunited if he took poison. He was almost persuaded to do the deed. A loud argument broke out from the other side. Her father’s ghost wanted Robert dead as fast as possible but Lorraine changed her mind and tried to stop him.

Sarah came running to make it a four-way cacophony. The living finally won out over the dead by sheer lung power. The two Duncans faded away, leaving the manor to Robert and Sarah, no doubt soon to be united in marriage.

**Philately.**



Lots of countries are now issuing COVID-19 stamps. Here are two recent ones from Morocco and Sierra Leone. The Penny Black, issued by Britain in 1840, was the world’s first postage stamp. A nice remix.





## THE AWL BIZ: PART 3

by Dale Speirs

[Parts 1 to 2 appeared in OPUNTIA #71.1D and 434.]

### Gimme That Old Time Radio.

THE THIRD MAN aired on old-time radio for a season in 1951-52, with Orson Welles as Harry Lime. No writers were credited. The mp3s are often labeled with varied titles using the name Harry Lime. The character came from Graham Greene's movie and later novel adaptation.

Lime met a nasty end in the original movie. In the opening narration of the radio episodes, Welles told the audience that these stories were set before Lime was shot dead fleeing through the sewers of Vienna like a rat. Lime was a confidence man constantly traveling throughout Europe.

In the radio series, most of his schemes seemed to fall through, yet he always had money to live well and go gambling in casinos. Lime narrated all the episodes as if he were a god speaking from Olympus, complacent in his superiority over the lumpenproletariat while oblivious of the fact that he lost more often than he won.

“Love Affair” was a 1951 episode set in Saudi Arabia. Harry Lime had been hired by an unnamed country to negotiate an oil lease for them. Why this was so was because Lime was a good friend of the sheikh who owned the mineral rights.

The country was never specified but their agent was named Schweig, so that suggested East Germany. In the late 1940s and early 1950s, there were still many giant oil fields not yet drilled. The Saudis were only just beginning their rise to wealth and power. Many countries were jostling for position around the fields.

The deal was almost done. Lime had only to drive out to the sheikh's palace with the contract and fill in the name of the country. Before he could do so, he was intercepted by agents of another country who wanted their nation's name written in the blank space.

Lime was in a quandary as he so often was, caught between two groups of nasty people. He was distracted by Marian Long, a fair young heiress in a tour group led by a guide named George Harris. Before anything could develop, Lime was again distracted, this time by a group of Arabs working for Schweig. They wanted to remind him where his loyalties should be.

There were alarms and a car chase. He met up with Long, who was in the midst of her own alarms. They escaped across the border to the adjacent sheikhdom. The oil contract was in abeyance but that didn't slow down all the pursuers.

First to catch up with them was Harris, who introduced himself as an FBI agent. He cheerfully informed Lime that the sheikh had awarded the oil lease to Americans. Even more cheerfully, he said Schweig was after Lime for betraying the deal.

A twist occurred when Harris arrested not Lime but Long, for murdering her aged husband. She was indeed a heiress but not for long (pun intended).

YOURS TRULY, JOHNNY DOLLAR was the last of the old-time radio series, airing from 1949 to 1962. Almost all the OTR shows had died off by 1955. Johnny Dollar was an insurance investigator based in Hartford, Connecticut. Each episode began with a claims adjuster from an insurance company ringing him up and asking him to take on a case.

The running joke of this series was that Dollar shamelessly padded his expense account. Each scene was introduced by Dollar reciting a line item from his expense report, followed by a segue to the action.

“How I Got A Wildcat Oil Operation By The Tail” was a 1950 episode written Paul Dudley and Gil Doud. Johnny Dollar was sent out to California by a life insurance company in search of a policy holder Alec Jefferson who had disappeared while on an oil deal. They were afraid it might have been murder. The company also administered the estate of Jefferson's father, which made the son a millionaire back when a million was real money.

The airfare from Hartford, Connecticut, to Los Angeles was \$186.13, plus \$15 for a taxi out to the drilling rig. The boss was Morris Flaherty, whose experience and Jefferson's money made the drilling possible. The latter was a womanizer who vanished a week ago driving home.



Dollar visited Jefferson's apartment and found a woman claiming to be his wife Ada. She said she was Flaherty's ex-girlfriend. Leaving the house, he saw someone lurking. Dollar rendered him unconscious for no better reason than he didn't like his looks. Checking his wallet, he proved to be a private detective named Philip Wilkins.

The subsequent conversation was filled with evasions and accusations from both men, which didn't really establish much. Wilkins did say that Flaherty had promoted about fifty dry wells in the past, but the current well seemed a potential gusher. That might have been the reason Jefferson disappeared.

They went out that night to crack Flaherty's safe. They found the partnership agreement and headed back to their car. As they got in, Dollar confessed he thought they weren't going to make it. A voice from the back seat told them *"Don't go starting any celebrations. You didn't make it"*. He was Flaherty.

At gunpoint he made them drive to his house where he showed them Jefferson's body. Flaherty denied killing him and said he was framed by someone else. Dollar searched the body and found an earring Flaherty said belonged to Ada. He said he had married Ada in Mexico two years ago, so she was a bigamist.

By now, there were three men forced to work together, none of whom trusted the others. The unhappy trio visited Ada, who was even more unhappy to see them. She said Flaherty set her up. Dollar said she set up both Jefferson and Flaherty. Wilkins said Jefferson tried to set up Ada.

After all the "he said, she said" it was Flaherty who killed Jefferson. Dollar suspected him after he noticed Ada didn't wear earrings and did not have pierced ears. The grand total of Dollar's expense account was \$711. And so home to Hartford.

Johnny Dollar was back in the oil business again with "The Carboniferous Dolomite Matter", a 1954 episode written by Sidney Marshall. Dollar was hired by an insurance company to investigate a \$60,000 claim on oil field equipment in Sumatra. The company was willing to pay the claim but the drilling rig operator Peter Van Oosterhoff wanted it investigated by a professional detective.

Expense account item #1 was \$1,013.40 for airfare and incidentals from Hartford, Connecticut, to Sumatra. Call it \$10,000 in today's depreciated currency. Air travel halfway round the world was not cheap in the early 1950s.

Van Oosterhoff told Dollar he suspected sabotage and not for the first time. He wanted his oil well completed for big money, not a paltry \$60,000 payoff. After the initial discussion, Dollar checked into a hotel.

While dining there, Van Oosterhoff's daughter Fredricka sat down at Dollar's table. Her husband John Reynolds was a geologist and believed there was no oil there. She wanted Dollar to convince her father to take the \$60,000 and move on. She didn't think there was sabotage, just accidents.

More ominously, she suggested Dollar might meet with an accident if he didn't change his course. That night the local police roused Dollar out of his sleep, wanting to see his handgun. Peter had been shot dead. Fredricka told police she suspected Dollar. The gun was clean and hadn't been fired. The police inspector was satisfied Dollar was not the culprit.

The question was why Peter was murdered. Reynolds met Dollar at the hotel, saying he was sure he knew who the murderer was. There was a competitor who was wildcatting in the area and would have appreciated Van Oosterhoff Petroleum abandoning the well.

Dollar consulted with an independent expert who said the core samples clearly indicated there was oil deeper down. Reynolds became a suspect, since he had been telling everyone the cores indicated a dry hole. He could take over the well after his father-in-law's death, complete it, and enjoy a fortune. The race was on to the well.

They found Reynolds about to cause another accident with nitroglycerine and destroy his wife. Dollar got off a good shot and blew up Reynolds before he could reach the well. Fredricka survived, now twice bereaved. The final expense account total was \$2,074.05. Nasty business in the oil fields. Expensive, too.



TEMPUS FUGIT: PART 5

by Dale Speirs

[Parts 1 to 4 appeared in OPUNTIA's #401, 432, 442, and 464.]

Immutable Time.

The best time travel story ever written was “Brooklyn Project” by William Tenn (pseudonym of Philip Klass). He wrote it as a satire on the Red Scare of the late 1940s. Every editor to whom he submitted the story said the same thing, that it was a great story but they couldn’t publish it because they would be investigated.

Finally the worst pulp magazine in the business, PLANET STORIES, accepted it because the editor felt he had nothing to lose. It appeared in the 1948 Fall issue (available as a free pdf from [www.archive.org](http://www.archive.org)) and has been anthologized many times since.

The story began with reporters in a briefing room where a security-conscious liaison man was lecturing them about how a new time travel device would bring the Reds to their knees. Because of the way it worked, much like a pendulum, it would first swing four billion years into Earth’s past, then come back with data and momentarily reappear in the laboratory.

The device would then immediately bounce back into the past two billion years ago, and repeat the cycle, cutting by half its travel each swing until it finally ran out of energy and reappeared permanently.

When the device made its first swing, the security man told the reporters there was no danger that the machine would alter the course of events. He then lectured them on making certain their stories would conform to the government line when published. The reporters sitting in their metal chairs squirmed as they listened to him.

The device bounced. The reporters sitting on the wooden benches looked around and had to agree with the security gauleiter that nothing had changed. Another bounce, and all agreed nothing had changed. There were still only two moons in the sky.

The device kept bouncing back and forth. Each time the changes were progressively greater, but no one perceived them, even though by now they were giant protoplasmic creatures.

*“See,” cried the thing that had been the acting secretary to the executive assistant on press relations. “See, no matter how subtly! Those who billow were wrong: we haven’t changed.” He extended fifteen purple blobs triumphantly. “Nothing has changed!”*



Steve Stiles comic strip, several decades later



“Over Time’s Threshold” by Howard Wandrei (1932 August, WEIRD TALES, available as a free pdf from [www.archive.org](http://www.archive.org)) involved time travel via clockwork and distillation. The young hero and his girlfriend visited the house of Professor Capal, who had disappeared four years prior. Yet when the couple entered his house, a grandfather clock was ticking. There were no footprints in the dust. The clock sped up and slowed down at random, sometimes going into reverse.

*The minute hand passed in rapid movement past the numeral three, stopped dead and retreated almost to the top of the face. Then both minute and hour hands disappeared in a blurred whirl. The heavy ticking became confused; the sound was full of unaccountable interruptions and double strikings and displayed as many irregularities as the movement of the hands. The weights in the case changed position uncertainly, and the motion of the pendulum could not be followed; it seemed to appear ubiquitously in its arc.*

The clock was connected to a retort which was producing an ice-cold green fluid. The couple were separated by different time warps. Sometimes they were in the far future when the house and the city were gone, replaced by forest. Then they snapped back to their present day.

The mechanism and its operation defy a quick summary, but the couple eventually made their way home, smashed the mechanism, and left. Capal had a brief walk-on part in the far future but the story concentrated on the hero trying to figure how the time travel device worked.

“The Finger Of The Past” by Miles J. Breuer (1932 November, AMAZING STORIES, available as a free pdf from [www.archive.org](http://www.archive.org)) pointed out one problem with time machines that is often overlooked. Most writers have the machine going into the distant past, whether centuries or megayears.

However, if they could go into the past a few minutes or days and observe people, there would be no privacy. Crimes could be solved by watching the scene a few minutes before the deceased met his end. Political enemies could be silenced by observing him committing his sins, such as a tryst with a prostitute.

Or, in the case of this story, it could be used to watch employees, every move they made on the job. Modern surveillance methods being what they are, a time machine would now be superfluous for this task.

## **The Trouble With Time Travelers.**

“The Time Hoaxers” by Paul Bolton (1931 August, AMAZING STORIES) was about the appearance of time travelers in rural Texas of 1930. They claimed to come from a century hence. The police ran them in as fakers. The story documented the woes of the time travelers as they were processed through the court system.

No one would take them seriously. The newspapers chronicled the events as a silly season story. Eventually the travelers managed to escape and the whole kerfluffle was eventually forgotten. The logic of the plot makes sense. It is almost a century since 1930. If we were to travel back in time we would have the same problem adjusting to what is now an alien world.

QUIET PLEASE was an old-time radio series that aired from 1947 to 1949, created, written, and directed by Wyllis Cooper. The episodes included a lot of weird fiction. Well worth downloading as free mp3s from [www.archive.org](http://www.archive.org)

“I Remember Tomorrow” was a 1947 episode. Three men imposed themselves on an alcoholic scientist Dr Garrett Faber to use his time machine. The story was paced slowly and took a while to get going. First the men discussed the project at length, then Faber discussed the paradoxes of time travel.

Finally the thing was done. Faber discovered that the machine would only go one day into the future, and no material objects could be brought back. He worried what his three investors were going to do with it. Unaware of his tests, they told him they were going to step into the future, rob some banks, and then come back with the loot.

First they wanted him to demonstrate the time machine, so he popped ahead a day. In the tomorrow, the three men arrived shortly after him but couldn’t see or hear him. They busied themselves cleaning up the blood in the laboratory and discussed the disposal of Faber’s body. He could only watch helplessly since he was in a slightly different time stream.

When Faber had returned to yesterday, proving the machine worked, they shot him dead at the moment of his return. His still-living self in the tomorrow had realized what was going to happen to him. The machine snapped him back to his death before he could react. That was one time loop that resolved itself.



“Not Responsible After 30 Years” aired on 1948-06-14. It was narrated by Greg, just released after in 1945 after serving three years for stealing a wristwatch from the skeleton of a Roman soldier who died in 410 AD in a Yorkshire camp. Greg then narrated the strange history of the watch.

He was in England in 1914 when a friend Edward invited him to visit a Druid circle on Midsummer Eve in Yorkshire. At midnight, an actual Druid priest materialized, followed shortly by a cohort of 60 Roman soldiers. The circle was a time warp, and Greg and Edward had been thrown back to 410 AD.

One of the soldiers could speak with them, and after a discussion of why the Romans said it was the year 1153 (because they counted from the founding of Rome) the two men went along with them to a party. When Greg woke up the next morning, he noticed his wristwatch running backward.

He went back to the circle after quarreling with Edward, who wished to stay behind. The Druid reappeared and sent Greg to 1945. The wristwatch was given to Edward, who had gone native. It would be his skeleton discovered fifteen centuries later.

“It Is Later Than You Think” (note the spelling) was a 1948-08-02 episode about country bumpkin Lindsay Bradley and his wife Verna during World War Two. He was drafted and the episode began with his coworkers presenting him with a gold watch the day before he went off to Basic Training. The watch seemed to have some special properties.

At home that evening with Verna, he was playing with the watch and set it ahead 11 hours just for fun. He suddenly found himself in the army camp being greeted by the Drill Instructor, Sergeant Kilroy. It took Lindsay a while to figure out what happened.

He discovered that he could jump in time back or forth a maximum of 12 hours. Going past that mark simply looped him back to his present. Verna moved into an apartment near the camp. With the aid of the watch, Lindsay discovered that Verna was dispensing her favours to Kilroy and there wasn't much he could do about it.

Kilroy learned the secret of the watch, although Verna never knew. Lindsay went overseas, was wounded, and came back with the watch jammed. As he recovered in hospital, Kilroy came by to visit.

Just as he unstuck the watch, Kilroy shot him, then got stuck in a time loop until the watch reached the time around him. He couldn't make a run for it, stuck in limbo in the room where he committed the crime.

MURDER AT MIDNIGHT was an old-time radio anthology series that aired for the 1946-47 season. The free mp3s available from [www.otrrlibrary.org](http://www.otrrlibrary.org) are excellent listening quality and worth listening to. Despite the title of the series, it covered more than just mystery, and often delved into the realms of fantasy and science fiction.

“The House That Time Forgot” was a 1946 episode written by Sigmund Miller. Fred and Eva Jordan were a young couple house-hunting and found a mansion for sale on a remote coast. They talked to the agent, who told them the house was haunted. The original owners, the Holloways, had gone out in their boat seven years ago and never returned. Their butler stayed on but had died a couple of years prior, and the house was now abandoned and dusty.

The couple bought the mansion. They found it furnished and spotless, with a fully stocked kitchen. The agent was surprised since the house had been abandoned for years. The Jordans noticed a grandfather clock that ran backward. Then the Holloway's boat reappeared at the dock with no one it.

The butler showed up despite having been dead for years. He invited the Jordans in to wait for the Holloways, who soon arrived. The latter were in a hurry as they were sailing out on their boat. Fred telephoned the agent, who had no memory of him or the transaction.

A storm arose, so the Holloways invited the Jordans to stay the night while they sailed away. The Jordans pleaded for the Holloways not to go but they refused to believe them and left them in the care of the butler. It was a dark and stormy night, and the storm obviously sank the Holloway boat.

Meanwhile, back at the house, the clock had stopped so the butler wound it up. The clock suddenly began running full speed forward. A moment later the Jordans found themselves back in their time, the butler gone, and the house filled with dust from neglect. The clock had stopped again. The Jordans agreed never to wind it up for fear of what direction it might go.



“Of Late I Think Of Cliffordville” was a Season 4 episode of the television series THE TWILIGHT ZONE, aired in 1963. The screenplay was by Rod Serling, based on a short story by Malcolm Jameson. A ruthless tycoon named Feathersmith, in his 70s, looked back on his life and wished he could live it over again so he could amass it faster and have more time to gloat over it.

He got his wish when the Devil, in the shapely form of Julie Newmar, appeared and offered to send him back to his birthplace of Cliffordville back in the 1890s. For a price of course. He knew enough to specify details about the bargain. His memory must be unimpaired, so he could capitalize on the knowledge of events up to 1963. He must be a young man in appearance.

Poof! The deal was done and he found himself in the past. First thing to do was to buy up cheap some swampland that he knew would produce oil in the late 1930s. He had little time to gloat, for he discovered why the land hadn’t gone into production any earlier.

Up until the 1930s, only shallow oil wells could be drilled, and the land he bought had oil at 6,000 feet. As the sharpies who sold Feathersmith the land giggled to him, they knew the oil was there but it might as well be on the Moon. Feathersmith’s purchase wouldn’t pay off for three decades.

Automobiles were just coming in back then, so he decided to produce self-starters and make a fortune. He went to a machine shop and described verbally what he needed them to make. They told him they would need blueprints and measurements. Since Feathersmith was not a mechanic and didn’t know how to draft engineering specifications, he failed again. Once more he was too far ahead of his time.

The ideas kept coming, but as he repeatedly found out, the technology to make them didn’t exist. He knew radio would be big in the 1930s and television in the 1940s, but had no idea how they actually worked.

He couldn’t tell production shops to make vacuum tubes because he didn’t know how to wire them into a broadcast set, and they didn’t have the tools to make them in any event. No one could make transistors because that required metal refining and purification techniques far beyond anything extant.

Feathersmith regretted his deal with the Devil. He had asked her to make him look young, but forgot to specify that his internal organs should also be young.

Instead, he had the heart, lungs, etcetera of a man in his 70s. She reappeared, and for a price agreed to return him to 1963. The catch was he ended up as a janitor, not a millionaire. The Devil drove a hard bargain.

Another chronos gone wrong episode of THE TWILIGHT ZONE was a Season 5 episode “A Kind Of A Stopwatch”, written by Rod Serling based on a story by Michael D. Rosenthal. A born loser was in a bar when an old man gave him a stopwatch. Click it once and the world froze in mid-motion. Click it twice and everything began moving again.

It was obvious the guy was a born loser because it took him until the last scene to figure out that he could live large and enjoy great wealth by robbing a bank. And so he did. He walked into a bank, waited until he saw the vault door opened, and then clicked the stopwatch. As everyone was immobilized, he walked around them, loaded a cart with oodles of cash, and pushed it toward the door.

He accidentally dropped the stopwatch and stepped on it, breaking it. The world was freeze-framed in time, and he couldn’t get it back to normal speed. He was going to spend his life in the twilight zone.



**VANISHED WORLDS: PART 6**  
by Dale Speirs

[Parts 1 to 5 appeared in OPUNTIA #320, 338, 403, 408, and 436.]

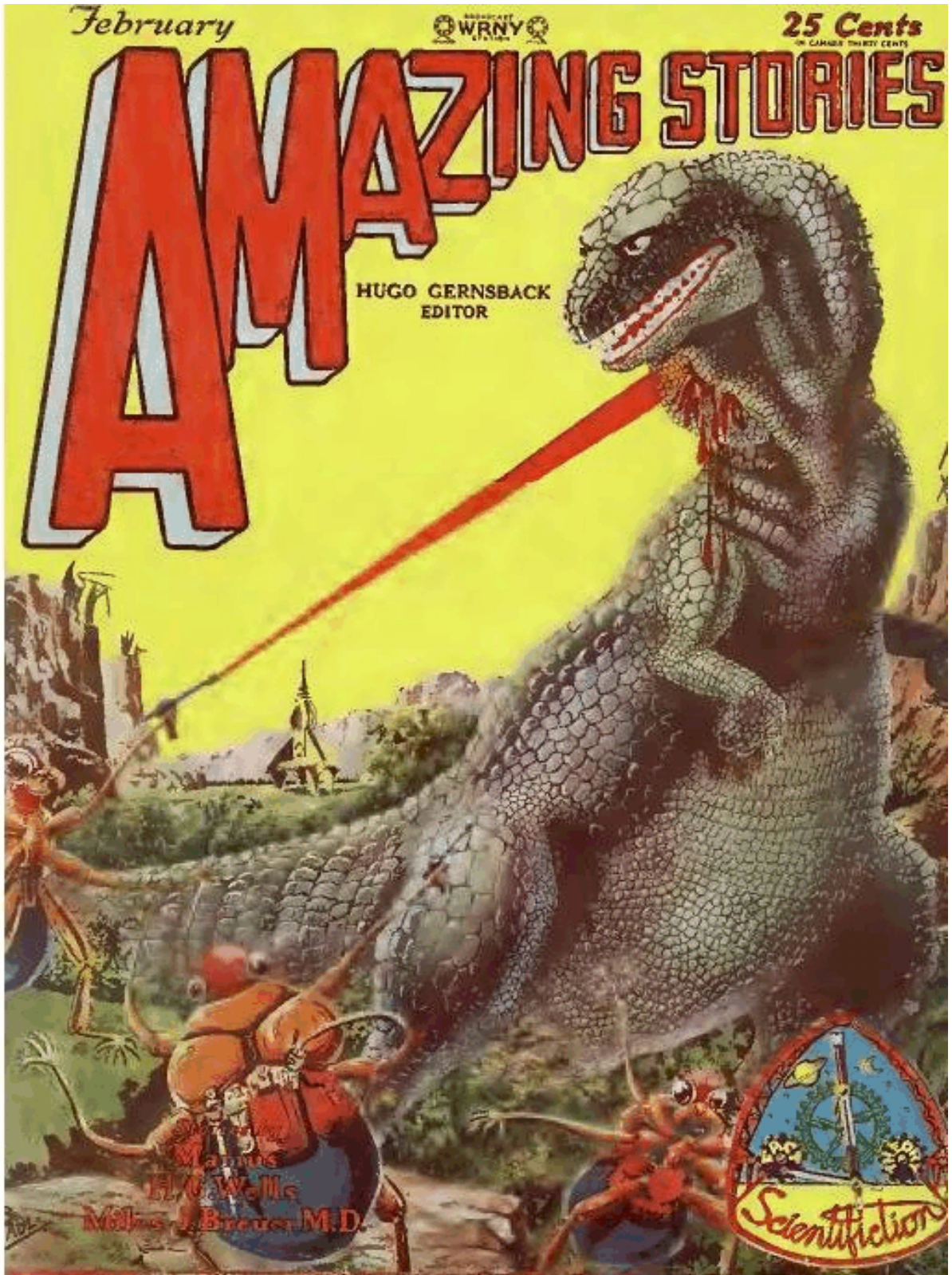
**Dinosaurs.**

If you haven't been to [www.archive.org](http://www.archive.org) or [www.gutenberg.org](http://www.gutenberg.org) lately, go take a look at the hundreds of science fiction pulp magazines that have been scanned and are available as free downloads. The originals of these magazines are scarce and expensive, when they have not already crumbled into flakes from the acidity of the pulp paper.

There are years worth of reading. Granted that much of it isn't worth reading, but science fiction is a literature of ideas. Many stories from back when are at least good for skimming.

An example is "The Death Of The Moon" by Alexander Phillips (1929 February, AMAZING). It began with the dying days of life on the Moon, where a civilization knew its days were numbered. (See OPUNTIA #424, page 17, for scientific evidence that the Moon was briefly habitable during its earliest days.)

The Lunarians sent out an expedition to Earth as a possible colony. They landed in the Cretaceous era and were quickly wiped out by tyrannosaurids. Kind of a downer, but on the other hand, the dinosaurs made way for the primates. An interesting concept.





“A Million Years After” by Katharine Metcalf Roof (1930 November, WEIRD TALES) was a title off by about 150 megayears, given that it was about a sauropod that was revived in modern times. On the other hand, the Jurassic Park movies featured Cretaceous dinosaurs, so one can’t be too critical of a story from 90 years ago.

This story began with the theft of a dinosaur egg by thieves who thought the package contained jewels. Disgusted by finding a soft and rubbery egg, they tossed it into a creek and went on their way.

Time passed, as it usually did, and then strange things began happening. The standard plot was followed. First, there was unawareness as a giant herbivore munched treetops in the backwoods. Then the first discovery by people who weren’t believed and were told to sober up. Next was the growing realization that there was indeed something in the woods.

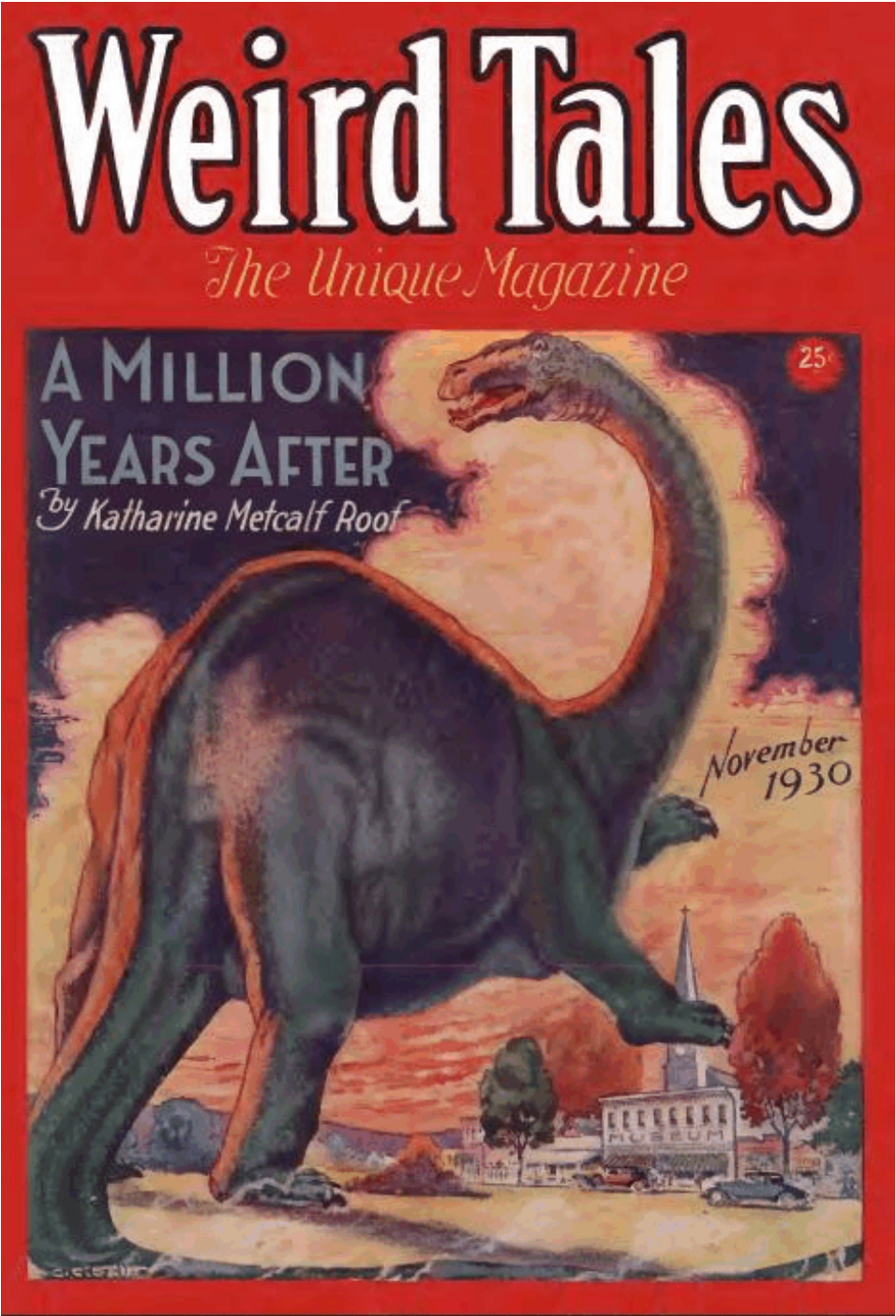
As the man from the Jurassic Park movie said, “*Then the screaming begins*”. The village folk got up a posse, followed by the usual alarms and excursions. Finally their combined firepower brought down the innocent beast. It fell between two straw-filled barns, there was a careless smoker, and the village soon had a lifetime supply of roast beef.

The following month, WEIRD TALES brought forth another dinosaur tale with “The Primeval Pit” by B. Wallis. This was a standard Lost World story about two men crossing the Andes when they find a verdant 2-mile-deep valley with vertical cliffs. Descending into it, they encounter giant trees, dinosaurs, and fields of rubies.

I don’t have to tell you the plot. Why I mention it is because the valley had pterodactyls flying about. They provided a bit of action-adventure for the explorers. The problem with them was why they didn’t just fly out of the valley and annoy all those innocent Peruvian farmers. In that case, the valley would have been discovered long ago and the critters disposed of with firepower.

“Triceratops Summer” (2005) by Michael Swanwick was reprinted in the anthology SCIENCE FICTION: THE VERY BEST OF 2005, edited by Jonathan Strahan. It began with an incident at a physics laboratory when someone said “Oops” and a big expensive device failed. The result was a herd of several hundred *Triceratops* materializing into a rural county. There was also a problem with time loops but the story wasn’t about them.

Triceratopsians were herbivores, so it turned out that farm boys who knew how to handle cattle had no problems with them. To be sure, the tank-sized beasts did trample a few gardens in search of tasty veggies. On the other hand the increase in the tourist trade more than made up for it.





SEEN IN THE LITERATURE

Evans, F.A., et al (2020) **Core-collapse supernovae in binaries as the origin of galactic hyper-runaway stars.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 497:5344-5363 (available as a free pdf)

Authors’ abstract: *Several stars detected moving at velocities near to or exceeding the Galactic escape speed likely originated in the Milky Way disc. We quantitatively explore the ‘binary supernova scenario’ hypothesis, wherein these ‘hyper-runaway’ stars are ejected at large peculiar velocities when their close, massive binary companions undergo a core-collapse supernova and the binary is disrupted.*

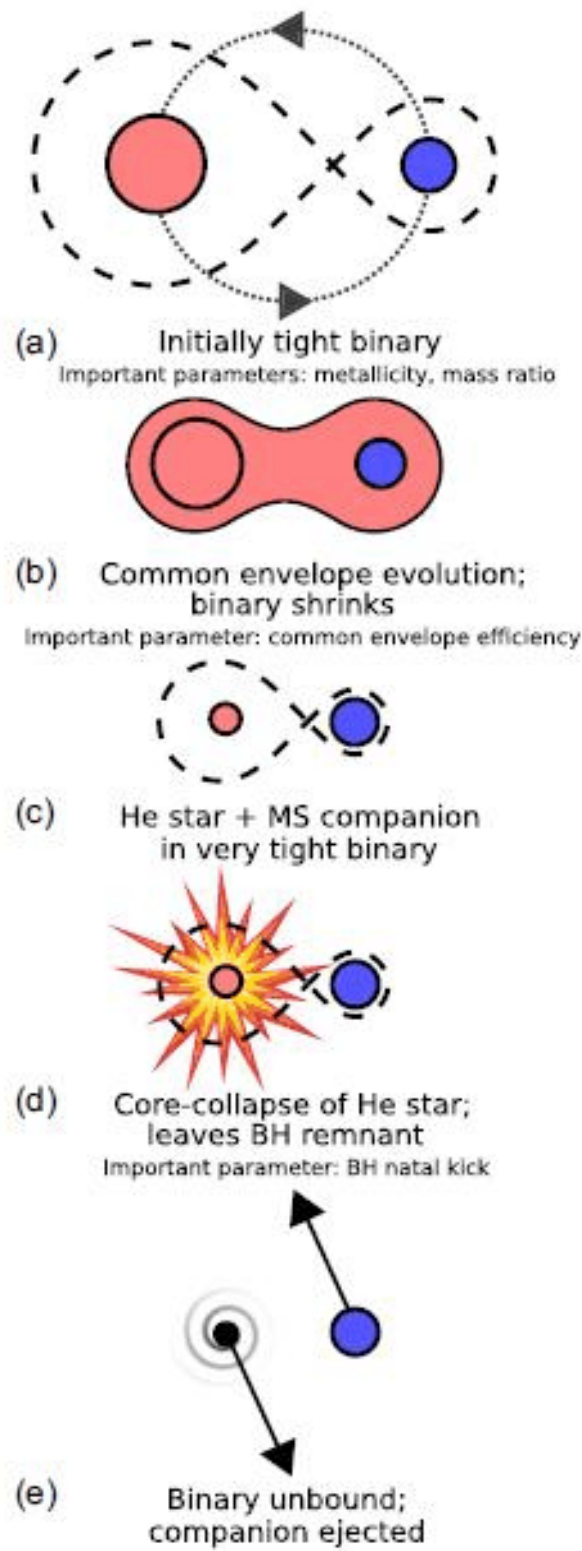
*We perform an extensive suite of binary population synthesis simulations evolving massive systems to determine the assumptions and parameters that most impact the ejection rate of fast stars.*

*In a simulation tailored to eject fast stars, we find the most likely hyper-runaway star progenitor binary is composed of a massive ( $\sim 30M_{\odot}$ ) primary and an  $\sim 3\text{--}4M_{\odot}$  companion on an orbital period that shrinks to  $1\text{ d}$  prior to the core collapse following a common-envelope phase.*

*The black hole remnant formed from the primary must receive a natal kick  $1000\text{ km s}^{-1}$  to disrupt the binary and eject the companion at a large velocity. We compare the fast stars produced in these simulations to a contemporary census of early-type Milky Way hyper-runaway star candidates.*

*We find that these rare objects may be produced in sufficient number only when poorly constrained binary evolution parameters related to the strength of post-core-collapse remnant natal kicks and common-envelope efficiency are adjusted to values currently unsupported, but not excluded, by the literature.*

[Image is from this paper.]





Vasiliev, E., and V. Belokurov (2020) **The last breath of the Sagittarius dSph.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 497:4162-4182

Authors' abstract: *We use the astrometric and photometric data from Gaia Data Release 2 and line-of-sight velocities from various other surveys to study the 3D structure and kinematics of the Sagittarius dwarf galaxy.*

*The combination of photometric and astrometric data makes it possible to obtain a very clean separation of Sgr member stars from the Milky Way foreground; our final catalogue contains  $2.6 \times 10^5$  candidate members with magnitudes  $G < 18$ , more than half of them being red clump stars.*

*We construct and analyse maps of the mean proper motion and its dispersion over the region  $\sim 30 \times 12$  deg, which show a number of interesting features. The intrinsic 3D density distribution (orientation, thickness) is strongly constrained by kinematics.*

*We find that the remnant is a prolate structure with the major axis pointing at  $\sim 45^\circ$  from the orbital velocity and extending up to  $\sim 5$  kpc, where it transitions into the stream.*

*We perform a large suite of N-body simulations of a disrupting Sgr galaxy as it orbits the Milky Way over the past 2.5 billion years, which are tailored to reproduce the observed properties of the remnant (not the stream).*

*The richness of available constraints means that only a narrow range of parameters produce a final state consistent with observations. The total mass of the remnant is  $\sim 4 \times 10^8 M_\odot$ , of which roughly a quarter resides in stars.*

*The galaxy is significantly out of equilibrium, and even its central density is below the limit required to withstand tidal forces. We conclude that the Sgr galaxy will likely be disrupted over the next billion years.*

Caplan, M.E. (2020) **Black dwarf supernova in the far future.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 497: 4357-4362

Author's abstract: *In the far future, long after star formation has ceased, the universe will be populated by sparse degenerate remnants, mostly white dwarfs,*

*though their ultimate fate is an open question. These white dwarfs will cool and freeze solid into black dwarfs while pycnonuclear fusion will slowly process their composition to iron-56.*

*However, due to the declining electron fraction, the Chandrasekhar limit of these stars will be decreasing and will eventually be below that of the most massive black dwarfs. As such, isolated dwarf stars with masses greater than  $\sim 1.2 M_\odot$  will collapse in the far future due to the slow accumulation of iron-56 in their cores.*

*If proton decay does not occur, then this is the ultimate fate of about  $10^{21}$  stars, approximately 1 percent of all stars in the observable universe. We present calculations of the internal structure of black dwarfs with iron cores as a model for progenitors. From pycnonuclear fusion rates, we estimate their lifetime and thus delay time to be  $10^{100}$  years.*

*We speculate that high-mass black dwarf supernovae resemble accretion induced collapse of O/Ne/Mg white dwarfs while later low mass transients will be similar to stripped-envelope core collapse supernova, and may be the last interesting astrophysical transients to occur prior to heat death.*

Wallner, A., et al (2020)  **$^{60}\text{Fe}$  deposition during the late Pleistocene and the Holocene echoes past supernova activity.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 117:21873-21879

Authors' abstract: *Nearby supernova explosions shape the interstellar medium. Ejecta, containing fresh nucleosynthetic products, may traverse the solar system as a transient passage, or alternatively the solar system may traverse local clouds that may represent isolated remnants of supernova explosions. Such scenarios may modulate the galactic cosmic-ray flux intensity to which Earth is exposed.*

*Varying conditions of the traversed interstellar medium could have impacts on climate and can be imprinted in the terrestrial geological record. Some radionuclides, such as  $^{60}\text{Fe}$ , are not produced on Earth or within the solar system in significant quantities. Their existence in deep-sea sediments demonstrates recent production in close-by supernova explosions with a continued influx of  $^{60}\text{Fe}$  until today.*



*Nuclides synthesized in massive stars are ejected into space via stellar winds and supernova explosions. The solar system (SS) moves through the interstellar medium and collects these nucleosynthesis products. One such product is  $^{60}\text{Fe}$ , a radionuclide with a half-life of 2.6 million years that is predominantly produced in massive stars and ejected in supernova explosions. Extraterrestrial  $^{60}\text{Fe}$  has been found on Earth, suggesting close-by supernova explosions  $\sim 2$  to 3 and  $\sim 6$  megayears ago.*

*Here, we report on the detection of a continuous interstellar  $^{60}\text{Fe}$  influx on Earth over the past  $\sim 33,000$  years. This time period coincides with passage of our SS through such interstellar clouds, which have a significantly larger particle density compared to the local average interstellar medium embedding our SS for the past few million years. The interstellar  $^{60}\text{Fe}$  was extracted from five deep-sea sediment samples and accelerator mass spectrometry was used for single-atom counting.*

*The low number of 19 detected atoms indicates a continued but low influx of interstellar  $^{60}\text{Fe}$ . The measured  $^{60}\text{Fe}$  time profile over the 33 ky, obtained with a time resolution of about  $\pm 9$  ky, does not seem to reflect any large changes in the interstellar particle density during Earth's passage through local interstellar clouds, which could be expected if the local cloud represented an isolated remnant of the most recent supernova ejecta that traversed the Earth  $\sim 2$  to 3 megayears ago.*

*The identified  $^{60}\text{Fe}$  influx may signal a late echo of some million-year-old supernovae with the  $^{60}\text{Fe}$ -bearing dust particles still permeating the interstellar medium.*

Rozner, M., et al (2020) **The wide-binary origin of the Pluto-Charon system.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 497:5264-5270

[The Earth-Moon system is a double planet, where the satellite is a substantial proportion of the planet. Likewise with Pluto and its satellite Charon, which make up the only other sizeable binary in the Solar System. The vast majority of satellites are tiny compared to the planet they orbit.]

Authors' abstract: *The Pluto-Charon binary system is the best studied representative of the binary Kuiper-belt population. Its origins are vital to*

*understanding the formation of other Kuiper-belt objects (KBO) and binaries and the evolution of the outer Solar system. The Pluto-Charon system is believed to form following a giant impact between two massive KBOs at relatively low velocities.*

*However, the likelihood of a random direct collision between two of the most massive KBOs is low and is further constrained by the requirement of a low-velocity collision, making this a potentially fine-tuned scenario. Here, we expand our previous studies and suggest that the proto-Pluto-Charon system was formed as a highly inclined wide-binary, which was then driven through secular/quasi-secular evolution into a direct impact.*

*Since wide-binaries are ubiquitous in the Kuiper belt with many expected to be highly inclined, our scenario is expected to be robust. We use analytic tools and few-body simulations of the triple Sun-(proto-)Pluto-Charon system to show that a large parameter space of initial conditions leads to such collisions. The velocity of such an impact is the escape velocity of a bound system, which naturally explains the low-velocity impact.*

*The dynamical evolution and the origins of the Pluto-Charon system could therefore be traced to similar secular origins as those of other binaries and contact-binaries (e.g. Arrokoth) and suggest that they play a key role in the evolution of KBOs.*

He, T., et al (2020) **An enormous sulfur isotope excursion indicates marine anoxia during the end-Triassic mass extinction.** SCIENCE ADVANCES 6:doi.org/10.1126/sciadv.abb6704 (available as a free pdf)

[Anoxia is lack of oxygen in water, which suffocates any marine organisms. The end-Triassic extinction occurred 200 megayears ago and was one of the five major mass extinctions in Earth's history. It was caused by the breakup of the supercontinent Pangea, the rifting apart of which released huge amounts of magma that overheated the planet.]

Authors' abstract: *The role of ocean anoxia as a cause of the end-Triassic marine mass extinction is widely debated. Here, we present carbonate-associated sulfate  $\delta^{34}\text{S}$  data from sections spanning the Late Triassic-Early Jurassic transition, which document synchronous large positive excursions on a global scale occurring in  $\sim 50$  thousand years.*



*Biogeochemical modeling demonstrates that this S isotope perturbation is best explained by a fivefold increase in global pyrite burial, consistent with large-scale development of marine anoxia on the Panthalassa margin and northwest European shelf. This pyrite burial event coincides with the loss of Triassic taxa seen in the studied sections.*

*Modeling results also indicate that the pre-event ocean sulfate concentration was low (<1 millimolar), a common feature of many Phanerozoic deoxygenation events. We propose that sulfate scarcity preconditions oceans for the development of anoxia during rapid warming events by increasing the benthic methane flux and the resulting bottom-water oxygen demand.*

van der Sleen, P., et al (2020) **Cats singing in the dark? Spawning aggregations of sound-producing fish in Amazonian floodplain forests.** ENVIRONMENTAL BIOLOGY OF FISH 103:1265-1267 (available as a free pdf)

*Authors' abstract: A predictable flood pulse in the Amazon basin inundates floodplain forests at vast spatial scales for several months each year, thereby creating crucial feeding and nursery grounds for Amazonian fish. How individuals of the same fish species find each other during this reproduction period and how mate selection takes place in these immense, shaded, and often murky waters remains largely unknown.*

*During the high-water season, on May 16, 2019, we collected a shoal of 28 individuals of the raphael catfish *Platydoras hancockii* (Siluriformes: Doradidae) in a blackwater floodplain forest, about 5 km from the town of Barcelos in the Mariuá Archipelago, middle Rio Negro, Brazil (0.56°S, 62.55°W).*

*The Amazon basin has a freshwater fish diversity comparable to a tropical sea. Although many Amazonian fish species are popular ornamental fish across the world, the ecology of most species in their natural habitat remains poorly known.*

*We report on shoaling behavior in *Platydoras hancockii* in a floodplain forest of the middle Rio Negro, Brazil. As the shoal consisted of only adult males, whereas gravid females were caught individually in nearby areas, we hypothesize that this aggregation may relate to spawning.*

*Moreover, considering that *Platydoras hancockii* is capable of producing sounds, it is possible that these aggregations entail the formation of a chorus-like call with the function of attracting females from a larger area.*

Bastir, M., et al (2020) **Rib cage anatomy in *Homo erectus* suggests a recent evolutionary origin of modern human body shape.** NATURE ECOLOGY AND EVOLUTION 4:1178-1187

*Authors' abstract: The tall and narrow body shape of anatomically modern humans (*Homo sapiens*) evolved via changes in the thorax, pelvis and limbs. It is debated, however, whether these modifications first evolved together in African *Homo erectus*, or whether *H. erectus* had a more primitive body shape that was distinct from both the more ape-like *Australopithecus* species and *H. sapiens*.*

*Here we present the first quantitative three-dimensional reconstruction of the thorax of the juvenile *H. erectus* skeleton, KNM-WT 15000, from Nariokotome, Kenya, along with its estimated adult rib cage, for comparison with *H. sapiens* and the Kebara 2 Neanderthal.*

*Our three-dimensional reconstruction demonstrates a short, mediolaterally wide and anteroposteriorly deep thorax in KNM-WT 15000 that differs considerably from the much shallower thorax of *H. sapiens*, pointing to a recent evolutionary origin of fully modern human body shape.*

*The large respiratory capacity of KNM-WT 15000 is compatible with the relatively stocky, more primitive, body shape of *H. erectus*.*

Zlatev, J., et al (2020) **Pantomime as the original human-specific communicative system.** JOURNAL OF LANGUAGE EVOLUTION 5:156-174 (available as a free pdf)

*Authors' abstract: We propose reframing one of the key questions in the field of language evolution as “what was the original human-specific communicative system?” With the help of cognitive semiotics, first we clarify the difference between signals, which characterize animal communication, and signs, which do not replace but complement signals in human communication.*



*We claim that the evolution of bodily mimesis allowed for the use of signs, and the social-cognitive skills needed to support them to emerge in hominin evolution. Neither signs nor signals operate single-handedly, but as part of semiotic systems. Communicative systems can be either monosemiotic or polysemiotic, the former consisting of a single semiotic system and the latter, of several.*

*Our proposal is that pantomime, as the original human-specific communicative system, should be characterized as polysemiotic: dominated by gesture but also including vocalization, facial expression, and possibly the rudiments of depiction.*

*Given that pantomimic gestures must have been maximally similar to bodily actions, we characterize them as typically*

- (1) dominated by iconicity,*
- (2) of the primary kind,*
- (3) involving the whole body,*
- (4) performed from a first-person perspective,*
- (5) concerning peripersonal space, and*
- (6) using the Enacting mode of representation.*

Vopson, M.M. (2020) **The information catastrophe.** AIP ADVANCES 10:doi.org/10.1063/5.0019941 (available as a free pdf)

*Author’s abstract: Currently, we produce  $\sim 10^{21}$  digital bits of information annually on Earth. Assuming a 20% annual growth rate, we estimate that after  $\sim 350$  years from now, the number of bits produced will exceed the number of all atoms on Earth,  $\sim 10^{50}$ .*

*After  $\sim 300$  years, the power required to sustain this digital production will exceed  $18.5 \times 10^{15}$  W, i.e., the total planetary power consumption today, and after  $\sim 500$  years from now, the digital content will account for more than half Earth’s mass, according to the mass-energy–information equivalence principle.*

*Besides the existing global challenges such as climate, environment, population, food, health, energy, and security, our estimates point to another singular event for our planet, called information catastrophe.*

Betsch, C., et al (2020) **Social and behavioral consequences of mask policies during the COVID-19 pandemic.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 117:21851-21853 (available as a free pdf)

*Authors’ abstract: Mandatory and voluntary mask policies may have yet unknown social and behavioral consequences related to the effectiveness of the measure, stigmatization, and perceived fairness.*

*Serial cross-sectional data (April 14 to May 26, 2020) from nearly 7,000 German participants demonstrate that implementing a mandatory policy increased actual compliance despite moderate acceptance; mask wearing correlated positively with other protective behaviors.*

*A preregistered experiment ( $n = 925$ ) further indicates that a voluntary policy would likely lead to insufficient compliance, would be perceived as less fair, and could intensify stigmatization. A mandatory policy appears to be an effective, fair, and socially responsible solution to curb transmissions of airborne viruses.*

Lecocq, T., et al (2020) **Global quieting of high-frequency seismic noise due to COVID-19 pandemic lockdown measures.** SCIENCE 369:1338-1343 (available as a free pdf)

*Authors’ abstract: Human activity causes vibrations that propagate into the ground as high-frequency seismic waves. Measures to mitigate the coronavirus disease 2019 (COVID-19) pandemic caused widespread changes in human activity, leading to a months-long reduction in seismic noise of up to 50%.*

*The 2020 seismic noise quiet period is the longest and most prominent global anthropogenic seismic noise reduction on record. Although the reduction is strongest at surface seismometers in populated areas, this seismic quiescence extends for many kilometers radially and hundreds of meters in depth.*

*This quiet period provides an opportunity to detect subtle signals from subsurface seismic sources that would have been concealed in noisier times and to benchmark sources of anthropogenic noise. A strong correlation between seismic noise and independent measurements of human mobility suggests that seismology provides an absolute, real-time estimate of human activities.*



Ivarez-Benjumea, A.A., and F. Winter (2020) **The breakdown of anti-racist norms: A natural experiment on hate speech after terrorist attacks.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 117:22800-22804 (available as a free pdf)

Authors’ abstract: *Surges in hateful and xenophobic content online are often found after terrorist attacks. We find that this effect is highly dependent on the local context and the respective social norms.*

*Prejudiced attitudes are likely to be voiced only if the perceived social acceptability of expressing prejudice increases. Since anti-hate norms play an important role in containing the expression of prejudice, understanding how terrorist attacks may impact the strength of the social norm is essential to understanding societal responses to terrorist attacks.*

*Terrorist attacks often fuel online hate and increase the expression of xenophobic and antiminority messages. Previous research has focused on the impact of terrorist attacks on prejudiced attitudes toward groups linked to the perpetrators as the cause of this increase.*

*We argue that social norms can contain the expression of prejudice after the attacks. We report the results of a combination of a natural and a laboratory-in-the-field experiment in which we exploit data collected about the occurrence of two consecutive Islamist terrorist attacks in Germany, the Wurzburg and Ansbach attacks, in July 2016.*

*The experiment compares the effect of the terrorist attacks in hate speech toward refugees in contexts where a descriptive norm against the use of hate speech is evidently in place to contexts in which the norm is ambiguous because participants observe anti-minority comments.*

*Hate toward refugees, but not toward other minority groups, increased as a result of the attacks only in the absence of a strong norm. These results imply that attitudinal changes due to terrorist attacks are more likely to be voiced if norms erode.*

LETTERS TO THE EDITOR

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

FROM: Lloyd Penney  
Etobicoke, Ontario 2020-09-15

OPUNTIA #481: Getting people to wear masks anywhere has been the problem here. We may have to retreat a stage because of increasing numbers of COVID-19 cases.

Online versions of any convention or other event should never be compared to the actual thing. It’s just not the same. Even Zoom gatherings can be a little dry, and I am finding that Bell [telecom] doesn’t seem to like Zoom very much. I could use an in-unit wifi booster, which might improve my reception and opinion.

[I’m on Telus and haven’t had any problems Zooming on my smartphone, a Samsung Galaxy 7 running Android 8. However I do it on my data allowance, which is cheaper than getting wifi. The average data usage of a Zoom meeting is 200 megabytes per half hour. My laptop has never been online; I transfer files back and forth with a memory stick.]

My letter: condos will crash in price? That’s been predicted here for more than a decade, and it has not happened yet. Yet may be the key word. Garth Turner’s had his turn as a pundit here, and few take him seriously any more.

OPUNTIA #482: More Little Free Pantries have been erected here and there, but in one occasion, the contents were promptly stolen, which in another case, the contents were scattered everywhere. I hope these stupidities won’t stop more Pantries from showing up.

Re: odd decals on a car: We have a Darwin sticker on ours, a fish with feet. We have been asked where we might get one of those decals, while one or two have wondered aloud if we were secure about our immortal souls. We asked them if God could give them both a sense of humour, since they seemed to lack one.