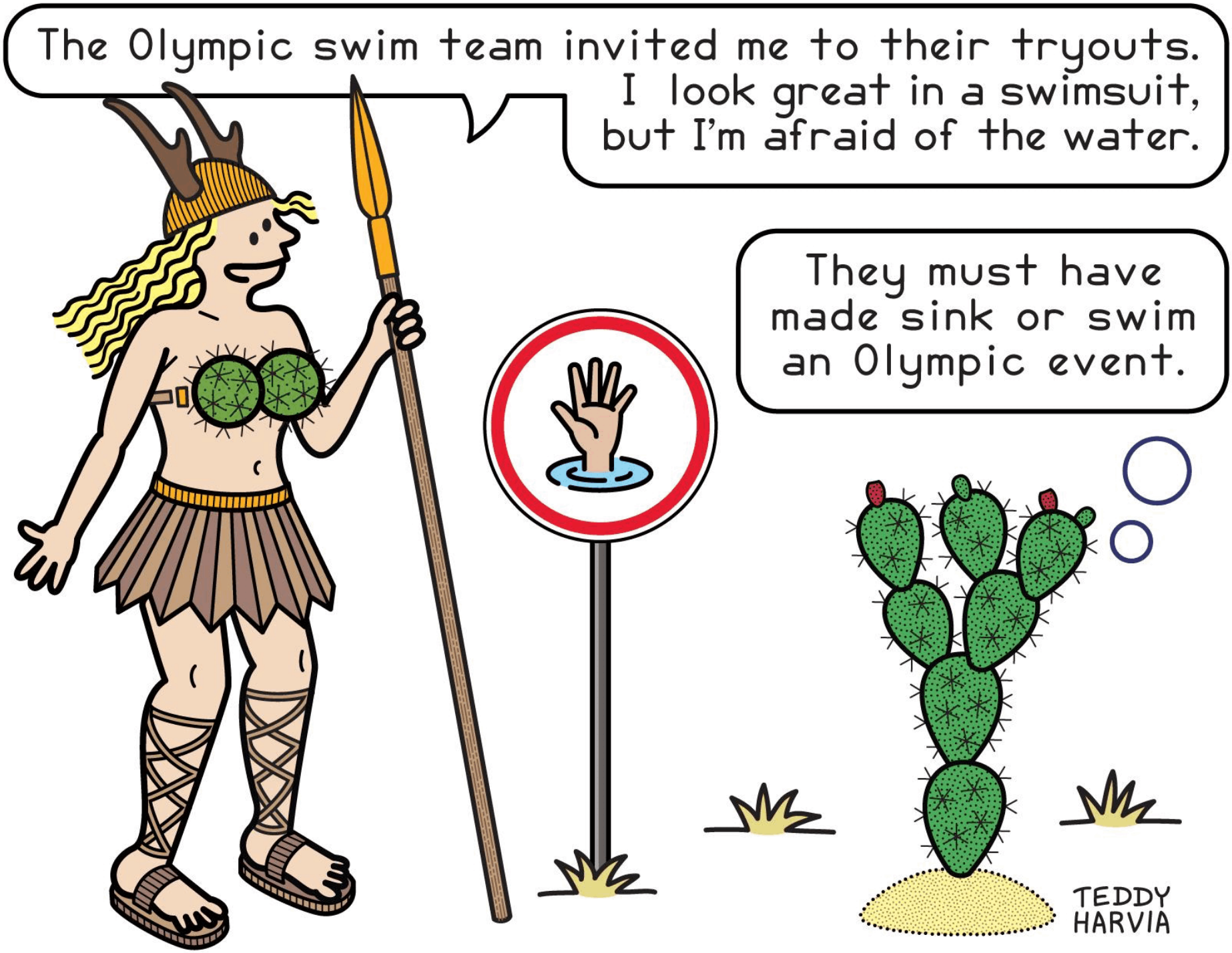
OPUNTIA 577


The Olympic swim team invited me to their tryouts. I look great in a swimsuit, but I'm afraid of the water.
They must have made sink or swim an Olympic event.
TEDDY HARVIA

Stampede Rodeo 2024

Opuntia is published by Dale Speirs, Calgary, Alberta. It is posted on www.efanzines.com and www.fanac.org. There is also an cumulative subject index to all issues available at those sites. 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.

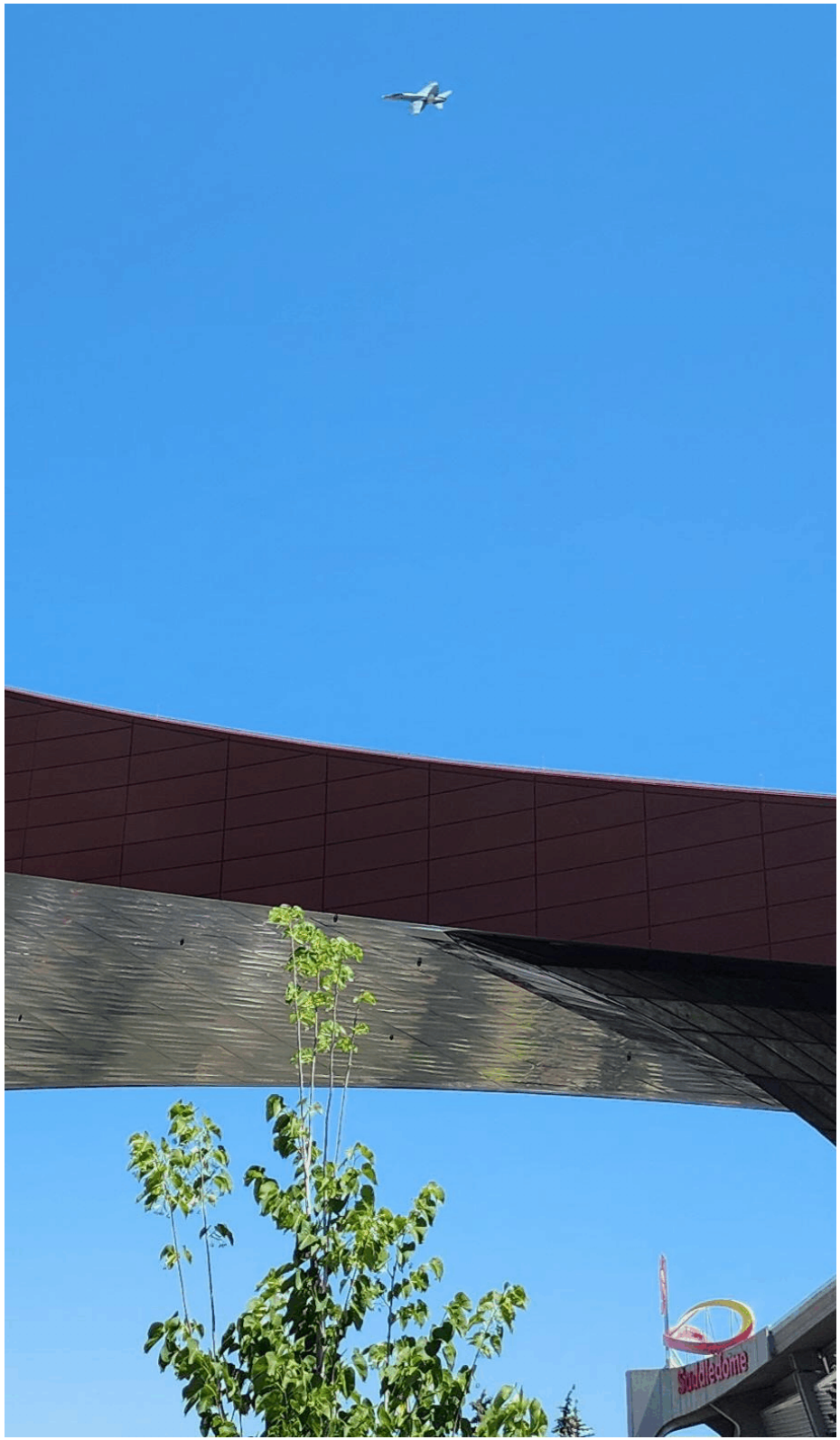
ABOUT THE COVER: Nothing to do with the Calgary Stampede or anything else in this zine, but Teddy Harvia sent me three covers relating to the Paris Olympics (July 26 to August 11). I'll use them over the next few issues as a chronicle of the Goddess Opuntia.

COWTOWN FROLICS
photos by Dale Speirs

The world's largest rodeo was held July 5 to 14 in Calgary, as it always is. Yippee kiy yay and all that. I moseyed on over to the rodeo grounds. Not every day, as I had other business to attend from time to time, but I did get in four days out of the ten.

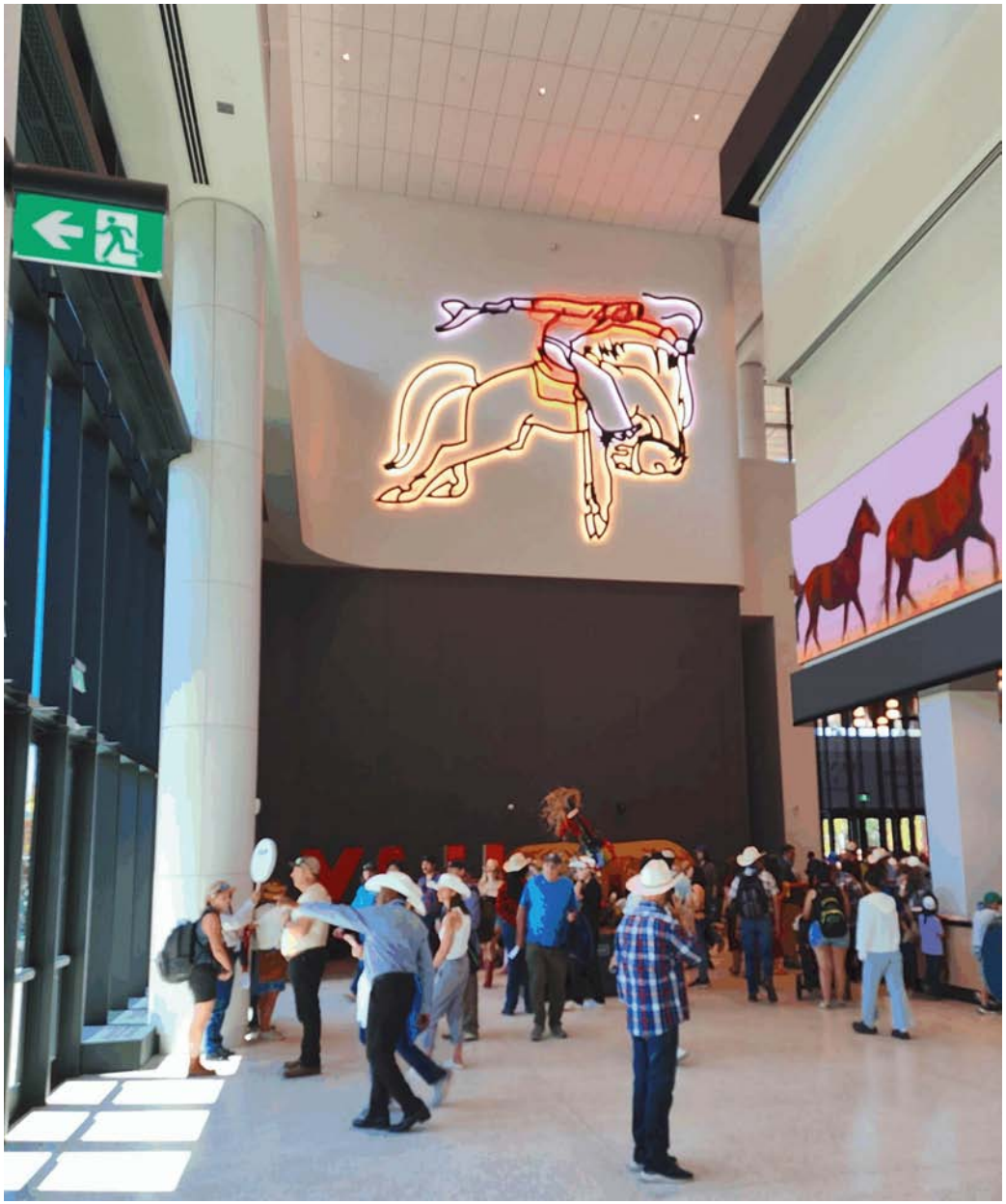
The big feature this year was the opening of the BMO Centre, under construction since the pandemic and finally completed this spring. The centre covers four city blocks and held the commercial exhibits and cultural events of the Stampede. The rest of the year the facility will host various trade fairs.

I was photographing the building when all of a sudden an RCAF fighter plane swooped low over the rodeo grounds. Fortunately I already had my camera up, otherwise I would have missed the plane completely. I don't know why it was swooping because there were no grand openings or event starts in progress. Very loud; fighter planes don't have mufflers.



Below: An entrance into the BMO Centre, which was named after the sponsor Bank of Montreal.

Top right: Long before the Internet, the Calgary Stampede management used "Yahoo!" as a rallying cry and still does. This despite the fact that every Canadian cowboy, myself included, used "Yeehaw!" out on the range. This sign was just outside the BMO Centre.



Above left: The marketplace inside the BMO Centre.

Bottom left: The Mounties are hiring.

Above right: Olive oil chocolate, direct from Spain.

One of the BMO Centre halls had a music stage (top) adjacent to the cowboy wine bar (bottom, and yes, that was what they called it).

The heavy horse dressage competition in the Nutrien Arena. Going counterclockwise from the tractor was before, during, and after.

Above right: This thoroughbred knew how to work a crowd.

Top left: Having grown up on a cattle ranch north of Red Deer, I always enjoy looking at the livestock exhibits. The pure white beef cattle are Charolais, which is what my father ran on the ranch.

Middle left: “I love Alberta beef” in case you couldn’t decode the ideographs.

Bottom left: I was not surprised to learn that there are still people who earn their living making wagon wheels.

On The Mall.

The Stephen Avenue pedestrian mall is 8 Avenue South in the downtown core, from 4 Street SW to Macleod Trail SE where it terminates at Olympic Plaza and City Hall. This is the gathering place of Calgarians for festivals and events. During the Stampede the mall was a hive of activity.

Every morning there was a free pancake breakfast at Olympic Plaza, with live entertainment. The pancakes were served from genuine chuckwagons. Entirely volunteer run. In the old days out on the range, the cook had to build a wood fire but nowadays propane stoves are the standard.

Top left: Some fun while waiting in line for a pancake breakfast on the mall.

Bottom left and top right: Daily square dancing on the mall. Gentlemen left and ladies to the right.

During the Stampede we had continuous sunny skies with temperatures in the high 20s and up to 35°C. The edges of the heat domes afflicting the Americans went up into the Canadian prairies but nothing like the 55°C they were getting south of the border.

There were daily mini-parades down the mall into the Plaza of the aboriginal tribes attending the Stampede.

Top left: Hoop dancer

Top right: Prairie chicken dancers

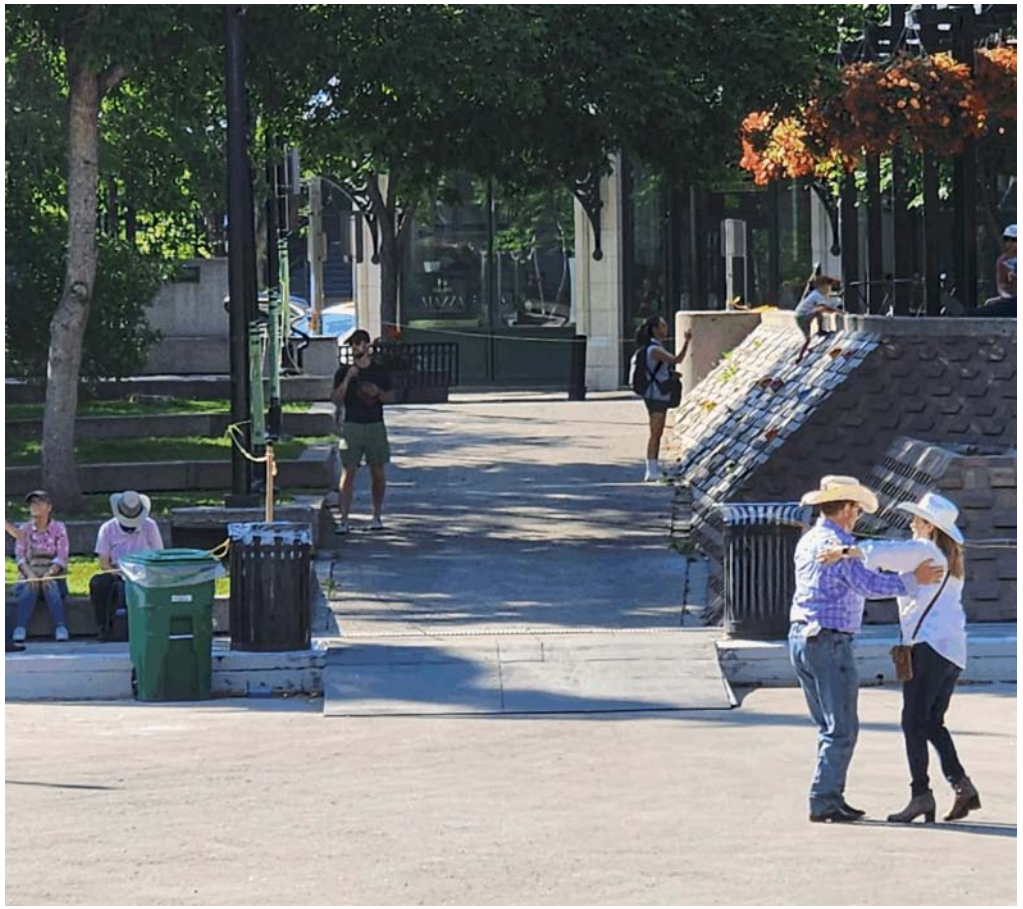
Bottom left: Jingle dancers

And just to fill an awkward space, one of several cowpoke stilt walkers downtown.

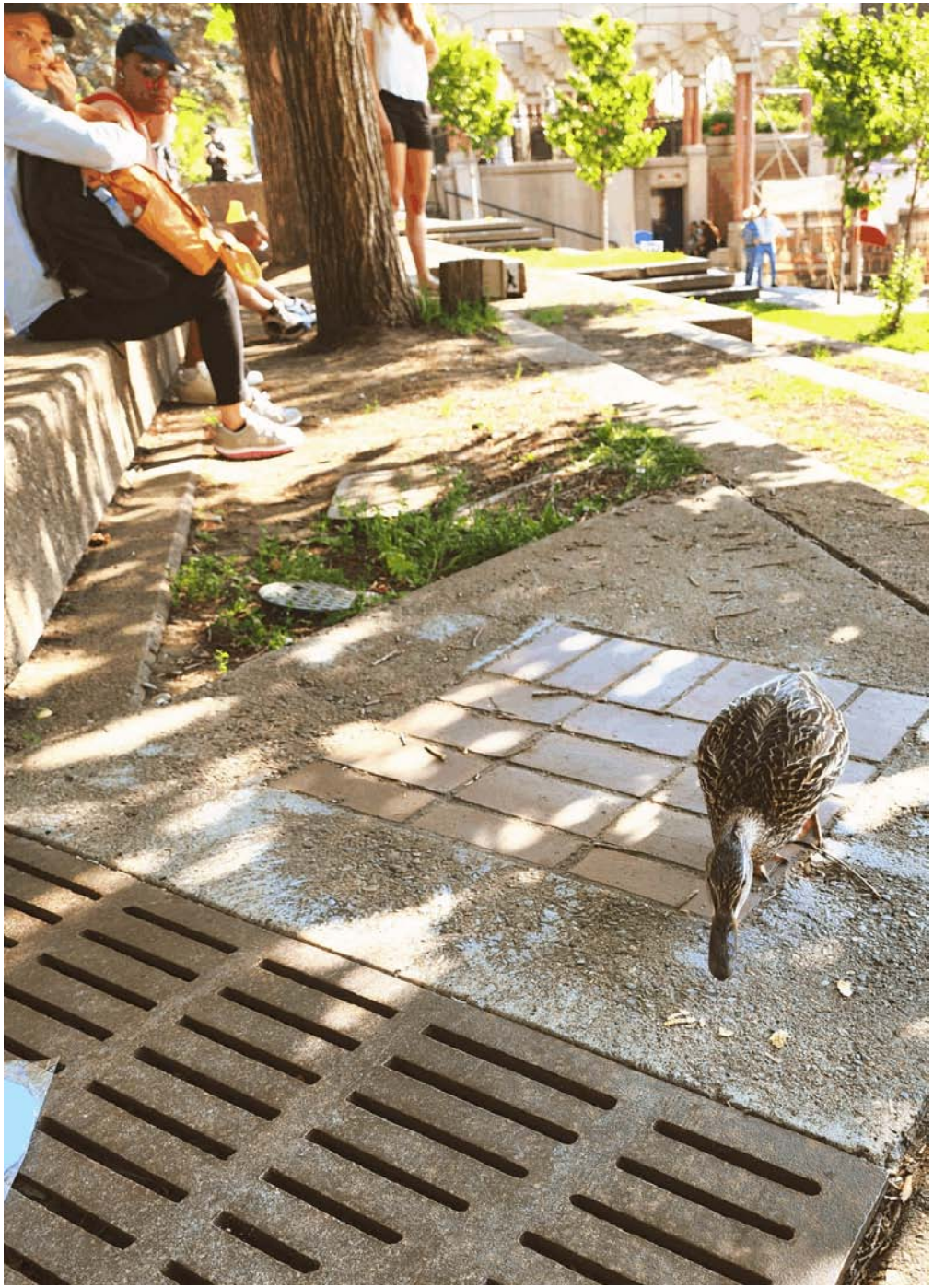
The days I didn't go to the Stampede grounds then I went to the free pancake breakfast at Olympic Plaza. The bands who played had an unnerving setup because the area in front of them had to be kept clear for the aboriginal displays.

Everyone gobbling pancakes stayed along the rim of the Plaza where the chuckwagons and shade trees were. At first glance the bands appeared to be playing to an empty house. After each number, faint applause would reach them from the far distance.

When the band played a catchy tune, this couple came out and danced. You can see them on the previous page at right of the long-view photo.



As I munched on my pancake, a mallard duck landed on the plaza in front of me and mooched for some pancake bits.



And so adieu to the 2024 Calgary Stampede rodeo. See you next year!

FINANCIAL FICTION: PART 7
by Dale Speirs

[Parts 1 to 6 appeared in OPUNTIAs #444, 461, 488, 504, 523, and 539.]

Gimme That Old Time Radio.

BOSTON BLACKIE, real name Horatio Black, had at one time been a jewel thief in Boston, but later became a freelance paladin. He was created by Jack Boyle who only published one book about him, a collection of stories in 1919.

The radio shows are leavened with humour and quips. Everyone, including his girlfriend Mary Wesley, called him Blackie. Writers were not credited, although the actors were. Available as free downloads from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

Blackie's nemesis was NYPD Homicide Inspector Farraday. The name was originally spelt in the usual way with one 'r' but after the series got going for some reason the extra letter was added.

"The Manletter Bank Case" aired on 1944-06-30. A bank called in an overdue promissory note that the client, named Manletter, couldn't pay. He telephoned the bank to protest that the president Arthur Borden had given him an extension, only to learn that Borden had suddenly retired.

The new management was not as forgiving. A day later Manletter received a letter in the mail saying that if he had his friend Boston Blackie visit a certain address, then the note would be extended. Blackie did and was slugged unconscious. When he awoke, his gun was missing.

The gun soon turned up at the scene of a murder. The victim was a rival private investigator whom Blackie had previously testified against during a court case. Inspector Farraday was only too pleased to run him in on a murder charge.

Blackie didn't stay long in a cell as Mary Wesley visited him with the necessary lock-picking impedimenta. He set up a rendezvous with Borden, who boasted how he had embezzled a large sum before taking early retirement from the bank.

The new president was ambitious and willing to overlook Borden's deficiency in exchange for the promotion. The murdered detective had been snooping about the ledgers, hence the plot to frame Blackie. What Borden didn't know was that Blackie had set up an open telephone line to Farraday's office. The conversation was recorded at the other end and Borden found himself in jail. An elaborate plot, indeed.

THE ADVENTURES OF SAM SPADE, based on the character created by Dashiell Hammett, aired from 1946 to 1951. It went off the air shortly after both Hammett and Howard Duff, the actor who played Sam Spade, were named as Communist sympathizers during the Red Scare.

Unlike the movie, where Spade was a serious man, the radio series played him as a happy-go-lucky fellow, sometimes swerving into slapstick. The series struggled on for a few more episodes as a sustained show with no advertisers. No corporation dared to be associated with it. The replacement actor Steven Dunne couldn't live up to Duff's characterization.

Spade worked in San Francisco. His secretary was Effie Perrine, a scatterbrained young woman who took down his narration in the form of a report.

Each episode began with Spade telephoning Effie and telling her to rush down to the office to meet him there and transcribe a report on the case he had just solved. The report was a letter to a local police officer keeping him informed of criminal matters, or occasionally addressed to the client.

"The Vendetta Caper" aired on 1951-03-30 and was written by John Michael Hayes. Steven Dunne played the part of Sam Spade. The name of Dashiell Hammett was not mentioned.

When dictating his report, Spade referred to the case as "The Revenge Of Monty Cristoff Case", despite having prefaced it with the episode title. The client was Chandler Goslin, who resented Cristoff moving into his neighbourhood and hosting big parties.

Cristoff was spreading rumours that Goslin's company was failing. Goslin shares began falling on the stock exchange. The Dante corporation was buying them up at a discount. Goslin's wife Virginia wasn't helpful.

Spade was called in by Cristoff for a chat and tried to buy him off. That not working, Spade was beaten up but turned the tables. Further investigation

revealed Virginia was carrying on with Cristoff. Spade confronted Cristoff, who said he was seeking revenge against Goslin, then keeled over in a faint. Goslin denied everything. Back to Cristoff's mansion, where he explained the vendetta dating back to his and Goslin's fathers.

Virginia owned 10% of the Goslin shares, which she secretly sold to Cristoff. She didn't survive to the end credits. The annual general meeting in the boardroom was a barnburner. Goslin was about to lose the AGM election because Cristoff had a majority of shares through the Dante corporation.

Goslin came in with a gun, ready to kill Cristoff, who in turned dared him to shoot. The latter's fainting spell was due to a terminal disease. He wanted Goslin to shoot him, not only to end the misery, but to get Goslin sent to the electric chair and ruin his reputation.

Spade then tossed in a tomato surprise that splattered all over the script. Goslin was adopted, and not responsible for the sins of his father. The meeting began. Cristoff voted to keep Goslin as chairman of the board. Indeed.

BLACKSTONE, THE MAGIC DETECTIVE was an old-time radio series that aired from 1948 to 1950. There were 79 episodes, written by Walter B. Gibson and Nancy Webb. Available as free mp3s from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

The character was based on a real magician Harry Blackstone Sr, although the plots weren't. Rhoda Brent played his assistant. The episodes were 15 minutes with commercials, which were edited out in the mp3s, reducing them to about 12 minutes each.

"The Ladder Of Wealth" aired on 1949-03-27. The ladder was a glass tower with mirrored shelves. A batch of coins poured in at the top would multiply as they bounced their way down from one shelf to another. When the coins reached the bottom and fell into a dish, only the original number were there. Twas an optical illusion done with mirrors.

The story began in a rural area where a miser Adam Winslow lived in a cabin by himself and supposedly had thousands of gold coins. Arthur Klaverik was a stranger who appeared and began searching for buried treasure, supposedly hidden by a Tory family during the American Revolution.

Winslow was found drowned one day. The villagers searched his cabin but did not find the gold. Klaverik stopped searching thereafter and bought the cabin. He lived on an invisible income which he claimed was the Tory treasure.

Blackstone flushed Klaverik out his cabin by offering the use of the Ladder of Wealth to multiply the gold. Klaverik bwah-ha-ha-ed but was sorely disappointed when his coins did not multiply.

Blackstone grabbed some of the coins and demonstrated they couldn't be Tory gold because they were dated in the 1800s and early 1900s. The coins were from Winlow's hoard, and there never was any Tory gold. Klaverik had murdered Winslow and taken his coins.

The epilogue will be misunderstood by present-day listeners. Blackstone mentioned that the villagers knew Winslow was the only one who didn't surrender his gold to the American government in 1934 as required by law.

The reasons for that law were complex but were mainly intended to replace gold with paper currency, which could then be inflated. American conspiracy theorists still run amok about this. Canada and other nations never appropriated gold. In actuality, only about 25% of American gold was ever surrendered to the government. Almost certainly Winslow wasn't the only villager to hide his gold.

Revival Radio.

"The $999,000 Error" was an episode of CBS RADIO MYSTERY THEATER which aired on 1979-11-14. Available as a free mp3 from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

This was an aircheck which began with a weather forecast from a Denver radio station. Snow coming from the north, in case you were interested. But after that, the show host E.G. Marshall introduced the episode, written by Ian Martin.

The opening scene was in rural Philippines, where the anglophone actors spoke in bad Spanish accents. One of villagers had received a letter saying she had inherited $1,000 from her sister in the USA. A lawyer translated the letter from English for a fee of 20 pesos.

For another 200 pesos he agreed to go to Manilla to pick up the money for her. Upon arrival at the bank, he learned the bank draft was actually for $1 million. Visions immediately popped into his head. He paid the woman her $1,000, converted to pesos, and set about diverting the $990,000.

He dropped out of sight with the money. The banker paid a visit to the woman and the theft was exposed. He telephoned the American bank and learned the draft was in error. Someone at their end sent it for $1 million instead of the correct $1,000.

The lawyer had managed to convert the $990,000 to cash before vanishing. The American bank was on the hook since the mistake was theirs. Both banks began the chase, which led to Brazil where the lawyer had absconded.

The Americans sent Jimmy Foster to Brazil, who found him but couldn't nail him. Foster tried his best but couldn't prove anything in any country's court. The lawyer hadn't stolen the money but was given it by the Philippine bank. He had given the senora her $1,000, so she was not out anything.

The American bank had made the error so they couldn't claw the money back from the Philippines. Foster offered to settle with the lawyer for 25% but the lawyer was smart enough to deny everything. Foster found a local named Josh he knew from the last war and who did odd jobs in the cloak-and-dagger business.

They set up a counter-scam to blackmail the lawyer, using Josh's girlfriend Sally. After she did the setup, Foster finished the trick with a cheque written for $1 million in disappearing ink. The lawyer couldn't sue. Justice was served without having to go to court.

Seen In Pdf.

"Peter Merton's Private Mint" by Lee Archer (1956 October, FANTASTIC, available as a free download from https://gutenberg.org) began with the namesake of the title in dire straits. Big cash he had been responsible for was stolen from his safe while under his care.

The twist was that denizens from the far future used his safe to transmit messages and requests for information. In exchange they sent him bundles of cash. He was not only able to make good on the deficiency but the cash kept coming so he could live the good life. The problem was that the future people were sending him cash from their museums.

All good banknotes but some of them wouldn't be printed and circulated until long after Merton's time. Eventually someone in his time noticed the serial numbers and dates on the banknotes were from the future and assumed he was careless in his counterfeiting.

Seen In Print.

"The Bank Of Burkino Faso" (2021) by Ekaterina Sedea appeared in the anthology THE BEST OF WORLD SF, Volume 1, edited by Lavie Tidhar. The story supposed that at least one of those phishing emails was actually true.

The deposed Prince of Burundi, exiled to Moscow, had been sending countless emails begging for help in restoring his lost fortune. The reader will easily guess why no one ever responded. One day the Prince received an email from Lucita Almadao.

She wrote that she was the widow of a deposed general and needed help to recover his funds trapped in the Bank of Burkina Faso. The pair got together to verify each other's bona fides. They jointly carried on the search for the bank and found it.

ZINE LISTINGS

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

THE FOSSIL #400 (US$10 per year from The Fossils Inc, c/o Tom Parson, 157 South Logan Street, Denver, Colorado 80209) This is a clubzine devoted to the history of zines and which is now celebrating its 120th year of publication. The first issue was dated October 1904. Various articles mention the history of this zine, biographies of editors, and a piece about Sonia Greene, the wife of H.P. Lovecraft who was in her own right actively involved in zinedom.

WEIRD FICTION: PART 10
by Dale Speirs

[Parts 1 to 9 appeared in OPUNTIAs #412, 458, 484, 493, 501, 511, 536, 542, and 559.]

Ghoul Hunters.

Victoria Laurie wrote a series about ghost hunters, not quite cozies but more humourous than standard ghost stories. The narrator was M.J. Holliday, who had two partners, Gilley Gillespie and Dr Steven Sable.

The latter financed the operation as a hobby. He was also canoodling with M.J. as more than a hobby. She called him Dr Delicious. He was handsome and rich. What else is there?

GHOULS, GHOULS, GHOULS (2011) took place in the British Isles. M.J. Holliday and her group were filming episodes for their show, this time at the ruins of Dunlow Castle in Ireland.

The place had hidden treasure and a plethora of people taking a short step off the local cliffs, both past and present. Gopher's fondest dream was that one of the ghosts would tell them where the gold was hidden.

Sure thing. Just have M.J. take a thermal sensor (ghosts are invisible to cameras), walk up to a grumpy ghost stuck in the castle for centuries, and cheerfully ask where the loot was hidden. There was a phantom roaming about, causing physical trauma and being just plain nasty. Equally annoying were villagers on the prowl for the gold.

Who did what to whom when and why took up much of the denouement. one of the most excruciating infodumps I have ever read. Or rather, skimmed over at high speed.

GHOUL INTERRUPTED (2012) took M.J. Holliday and company back across the waters to New Mexico. A demon was on the warpath against the Zanto Pueblo. The tribe need a white saviour, so she was called.

To kill the demon, M.J. was told she had to kill whoever summoned it. The Whitefeather family were the victims of what seemed to be attacks by the demon. Their ranks were steadily thinned.

The suspicion was the deaths had more to do with trafficking in stolen artifacts, combined with insurance fraud. However a real demon arrived in the midst of explanations of who was where and when.

A grand battle erupted between the demon and the spirits of Whitefeather ancestors. Thereafter followed another complicated explanation about a renegade living Whitefeather. He started the whole contretemps when he used the demon against grave robbers and it got away from him.

WHAT A GHOUL WANTS (2013) continued the British tour, this time to Kidwellah Castle in Wales. (Ghosts never haunt one-bedroom condos.) The Grim Widow was said to drown her victims in the castle moat. When M.J. Holliday arrived, the reader will not be surprised there soon followed two more fresh victims.

The police and M.J. agreed the dead were sent off by someone living, not a ghost. That meant dredging up past history, and not that far into the past. Gilley was becoming outright paranoid because everywhere he went with M.J., death and ghosts followed. Smart man, that fellow.

The castle had been converted into a hotel. The alarums began even as M.J. and her people checked in, including her meeting the ghost in the corridor outside her room. The police became frequent visitors.

An infodump related the bloody history of the castle, which segued nicely into the bloody present of the castle. The place had claimed nine victims in recent years, all men who left sizeable estates to their widows.

The Lady of the castle was in on those murders with the widows. She took a share of the proceeds in exchange for facilitating the accidents. This enabled her to continue living in the manner to which she had become accustomed.

Ghost Skeptics.

Tamara Berry had a cozy series about Eleanor Wilde, a ghost hunter who operated a cleansing service. For those who believed their house was haunted, she would rid them of the ghost. For a suitable fee, of course, meaning several thousand dollars. Eleanor didn't believe in ghosts but she had a sister in long-term care and the medical bills were very high.

CURSES ARE FOR CADS (2020) was the third novel in the series. Eleanor Wilde was summoned to a castle in yon Outer Hebrides of Scotland. The laird Glenn Stewart neglected to tell the clan where he hid the family treasure.

They hoped Eleanor could communicate with the dearly departed, unaware that she was a fake medium who relied more on Marpleing than seancés to solve mysteries. What she didn't know until she arrived was that they also hired medium Birdie White, who genuinely believed she had talent.

Upon arrival, they divided their investigations. Birdie communed with the dead, while Eleanor talked to the servants and neighbours, who were more likely to have useful information. The usual alarums followed among the living and unusual alarums among the dead.

Plus the rain, usually horizontal from the gale force winds. There's a reason why the islands of Scotland are so thinly populated. Eleanor's sister Winnie, still a traveling ghost, warned her off but the novel would only be 17 pages (hardcover edition) had she heeded Winnie.

The death toll began to increase, as it always does when a Miss Marple arrives, psychic or not. Birdie claimed to be psychic but failed to foresee her own murder. The final confrontation was different, on a rowboat out at sea, where a boy saved Eleanor by whacking the murderer with an oar. Alas, the treasure was long gone.

HYPNOSIS IS FOR HACKS (2021) was the fourth novel in the series. This time the murders were spread to sunny Brighton on the south coast of England. Eleanor Wilde, her brother Liam visiting from America, her boyfriend Nicholas Hartford III, and his mother Vivian accompanied her for a seaside holiday.

The sunshine was dimmed when her former partner in crime Armand Lamont showed up. Back in the USA, he and she worked a ghost exorcism racket, convincing gullible clients to divest themselves of big cash to remove ghosts. She was the SFX expert who created the ghosts and he was a hypnotist who put the clients into a malleable condition.

Eleanor thought Armand was either going to try her for blackmail or start a fresh con game. From force of habit, he was looking for a scheme to fleece the Hartfords.

Attention was diverted by a body washing ashore and jewelry thefts at the hotel. Another death, in the hotel sauna, brought in police. The officer in charge was Gillian Piper, ex-wife of the inspector back home and no friendlier.

There were ghosts, which mystified Eleanor until she figured out they were a clever use of projected images. There followed some complicated contretemps. The jewel thief was caught. Eleanor caught her own man, Nicholas, with a proposal of marriage.

Cozy Ghosts.

Cleo Coyle is the pseudonym of Alice Alfonsi and her husband Marc Cerasini. They wrote a cozy series about Penelope Thornton-McClure of Quindicott, Rhode Island. Her bookstore was haunted by the ghost of Jack Shepard, a private investigator who had been shot dead in the store in the late 1940s.

Only Penelope could see or hear him. He could yank her spirit back to the 1940s before his death where she was a femme fatale. The novels alternated between the present-day case that Penelope was Marpleing and a similar case back when that paralleled it.

THE GHOST AND THE STOLEN TEARS (2022) had as its MacGuffin a diamond necklace called the Valentino Teardrops. Jack had dealt with their theft in 1947 when he was alive and an actress had them stolen from her. Over the years the necklace had changed hands and had now been stolen from an Internet influencer Peyton Pemberton.

In the 2022 theft, the bookstore cleaning lady was the suspect. Alternating with the 1947 case, they both worked their way through the back stories. The grand finale of the 2022 case was a car chase and recovery of the necklace once more.

Or rather, paste copies, because Pemberton had been selling off the real diamonds one at a time to support her lavish lifestyle. The supposed theft was insurance fraud, to claim diamond coverage for paste stones, framing the cleaning lady to divert suspicion. Pemberton didn't have a ghost of a chance.

THE GHOST GOES TO THE DOGS (2023) was the next novel in the series. Penelope Thornton-McClure was hosting Pet Mystery Week at the bookstore. A stray dog came barking to the bookstore, begging for help.

No, Timmy hadn't fallen down the well, but the dog's owner was out in nearby woods, shot by a rifle. Off to the Marpleing. Resident ghost Jack Shepard paralleled the plot with a dog case of his own from the 1940s. All kinds of dogs and their back stories followed, almost as plentiful as the humans.

There were plenty of loose ends to be sniffed out. An author book signing at the store had its excitement as well. The victim's dog had been chipped, not with an RFID but a memory chip that held evidence of big corporate fraud.

The bad guys wanted that chip but in the end they were exposed. The dogs wagged their tails and the bookstore signing was a success.

Paranormal Cozies.

According to her biography, Carol J. Perry truly was born in Salem, Massachusetts, on Halloween Day. Be that as it may, her paranormal cozies set in Salem are presumably not autobiographical. The protagonist of her Witch City Mysteries series was Lee Barrett, assisted by her psychic cat O'Ryan.

LOOK BOTH WAYS (2015) started with Lee Barrett buying an oak bureau from an antiques shop. That night the owner of the shop was murdered and the chase was on.

The bureau had a tarnished mirror which allowed Lee to experience some psychic visions. There were numerous secret compartments, one of which might have held a sizeable pink diamond. Lee had several visions in the mirror, one of which was the dead shopkeeper holding the pink diamond.

O'Ryan did his part, pointing out newspaper stories with his paw to guide Lee along. He was one smart cat if he could read the stories. Thieves knew about the diamond, and put Lee on the list. They caught her and might have done away with her but for O'Ryan.

He summoned every cat in the city. Hundreds of them, circling the bad guy and herding him to justice. The mind boggles at the thought.

MURDER GO ROUND (2017) began with Lee Barrett and her Aunt Ibby at a storage auction. They bid on a locker and found among its contents a wooden carousel horse. Lee took it to a repair shop. A man followed her. He was later found dead by the shop and the horse dismantled.

A group of Russian emigres took up the middle part of the novel. O'Ryan was busy distributing clues that no one could understand, such as knocking a fresh egg off a kitchen. Eventually the discovery was made that the Russians had brought in six Fabrage eggs gone missing after the Revolution.

The carousel horse was a clue. There were modern Russians tracking down the eggs. They didn't care how many people they had to kill to get them. International spy agencies became involved. The explanations of who was doing what filled an end chapter. At least everyone realized why O'Ryan was breaking eggs.

Gimme That Old Time Radio.

THE WITCH'S TALE aired from 1931 until 1938 during the beginnings of broadcast radio. All episodes were written by Alonzo Deen Cole. Available as free mp3s from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

The narrator was a witch named Old Nancy, who did a lot of cackling, supposedly to add colour but very annoying in the aggregate. Perhaps it wasn't so wrong to burn witches after all. She introduced her cat Satan who would meow a couple times and then was heard no more.

There was a running gag involving Old Nancy's age. Each week in the intro she would declare that it was her birthday that day. In one episode she had just turned 122 years old, then in the next episode she would be 102, then 113, then 103, and so forth.

Even funnier was that for most of the series Nancy's voice was done by a teenaged girl. She began doing the voice when she was 13 after her predecessor, a 79-year-old woman, died in office. She was good at it though.

"The Boa Goddess" aired on 1933-07-31. Three men were lost in the Yucatan jungle and came across an unknown tribe. They discovered a statue of the Boa Goddess, encrusted with emeralds. The rest of plot was quite predictable. The statue was alive and knew how to use its coils.

"Tourists Accommodated" first aired in the USA in 1938 but the mp3 at hand is an Australian transcription from 1943. Same script, different actors, different Old Nancy, all with Strine accents.

A young couple on the road were weary and looking for a place to stay overnight. They saw a dark and gloomy house that had a sign 'Tourists Accommodated'.

Beggars can't be choosers in remote areas. The management were untidy and the plot could be seen coming ten minutes before it got there. The wife was given to alarums and screaming.

The exposition by the sheriff in the denouement went on at length about an elderly couple and $60,000 in negotiable bonds that disappeared the night they were found in their beds. With two minutes remaining, the narrator said "*to make a long story short*", a blatant falsehood as he continued onward.

"The Wonderful Bottle" aired on 1935-02-18. Cole adapted the story from "The Bottle Imp" (1891) by Robert Louis Stevenson. The tale began on a dusty country road in Argentina where Matt and Arthur were seeking their fortunes, so far unsuccessfully.

They saw a manor house by the roadside. Hoping to bum a meal, they stopped. Before they could enter the grounds, an old woman called to them and warned the house was dangerous. If they entered inside, they would lose their immortal souls.

They ignored her warning. An elderly man invited them in and served a wonderful dinner. He then made an offer to sell a magical bottle that would grant them their wishes.

The catch was that the bottle's owner had to sell it before dying, elsewise he would go to Hell at his death. Further, the owner had to sell the bottle for less than he paid for it. Arthur bought the bottle for $50, to the glee of the old man, who was now free.

Jumping ahead, the two men returned to the USA. Arthur had set up his family with wealth and land. The curse of the bottle preyed on his mind, so he sold the bottle to Matt for $40.

Another jump ahead in time. Arthur, married to Eva, came down with leprosy, so he wanted to buy back the bottle for a cure. The problem was Matt had sold it onward after making his own fortune. They set off on a search from one owner to another.

Arthur managed to buy back the bottle for 5 cents. Eventually he resold it to Matt for 4 cents after a cure. Eva bought it back for her problems but managed to resell to a stranger who paid a grain of sand.

"The Statue Of Thor" aired on 1937-04-22. A sculptor named Neil Adams was using a big Swede named Olaf as a model for a statue of Thor. Just his body, as Olaf's face was not very god-like. Adams used a different model for the face.

Olaf's girlfriend Hedwig was quite beautiful, after whom Adams lusted. He seduced her but then had to worry about Olaf. The problem was resolved by throwing Olaf into the molten bronze. The statue was then cast. When the mould was opened, the face was that of Olaf. The eyes kept watching Adams. Thunder was heard and the statue moved.

THE HERMIT'S CAVE was a radio anthology series that aired from about 1935 into the 1940s. This was a syndicated series, which meant that local stations bought disks of the episodes and played them as they liked. No credits were given to the writers or actors. Available as free mp3s from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

"It Happened On Sunday" first aired in the 1930s. Raymond Putnam was an artist who went into moody seclusion once a year when his deceased wife Miriam's spirit visited him on the anniversary of her death. His fiancée Viola didn't know that and was perturbed by his unusual behaviour.

Viola tried to talk with Raymond about his moods but was unsuccessful. She consulted with a mutual friend Dave. The two decided to take Raymond out to a cottage for the weekend.

Raymond pre-empted Dave by asking him to stay the night in the studio over Saturday night. There were manifestations such as a woman's maniacal laughter and knocking on the door. Dave got the Orions to help out, who were the housekeeper and her husband.

They and Raymond told the story. Miriam was insane, tried to stab Raymond to death, and later died of some mysterious disease. On her deathbed she told Raymond and Mrs Orion that each year she would come back to haunt them.

A chair began rocking by itself and an invisible woman laughed. Raymond pulled out a handgun and emptied it into the chair with no results. He felt

himself choked by invisible hands. Having trouble breathing, he told the ghost that he had to poison her. Raymond died of a guilty conscience. Dave figured that his heart gave out but couldn't explain why there were finger marks on his throat.

QUIET PLEASE was an anthology series of weird fiction and science fiction that aired on radio from 1947 to 1949, written and produced by Wyllis Cooper.

"How Beautiful Upon The Mountain" aired on 1948-05-03. The episode is dated today because in the opening sentences the narrator remarked that while Mount Everest might be climbed, no one would come back down alive. Five years later, the summit was reached by Hillary and Norgay, who lived to tell the tale.

The thesis of this episode was that men climbed mountains to find the gods. As one mountain after another was climbed, the gods retreated, finally establishing a final redoubt on top of Mount Everest.

The narrator met a college classmate John Chandos who wanted to climb the mountain and had the cash to fund it. Off they went. Much philosophical discussion along the way.

Chandos personified the mountain as a bride waiting for her husband. The constant plume of snow at the peak was her wedding dress. They didn't reach the summit. Chandos died near the top, covered by a bridal veil of snow.

"Good Ghost" aired on 1948-10-24. The narrator Garth was a freshly made ghost who had just been shot dead. He didn't realize his condition at first. Only after realizing he could only move on foot around the area of his death, did he know he was a ghost.

Garth walked over to the home of Shuster, the gunman, and haunted him. Garth wanted to know why Shuster shot him. The answer was jealousy over a woman named Aida. That led to a long back story about the romantic triangle. Shuster, in the meantime, had fled to Aida's place. Garth moseyed on over there to see them commiserating with each other.

The hauntings continued. Garth just wanted to chat but inadvertently reduced Shuster to a nervous and physical wreck. Eventually Shuster was put in an institution, where Garth continued to haunt him. After a while, Garth got through to him and assured him no harm was meant.

Shuster was eventually released. Garth still followed him around, helping him win at the roulette wheel in Rollo's casino to raise money to marry Aida. After the marriage, Shuster blew through his winnings, so back to Rollo's with Garth's help. Then the race track, followed by a sweepstakes win. Always for Aida.

Then Garth discovered Aida was dying in poverty. Shuster had dumped her long ago. He got his revenge by killing Rollo and setting up Shuster to take the fall. Garth was redeemed and went to heaven to Aida.

STAND BY FOR ADVENTURE aired in 1950, with episodes available as free downloads from www.otrr.org/OTRRLibrary This series is one about which nothing is known. No credits were given in the episodes, which were about ten minutes long.

"The Face And The Rose" was about a painting in a house. Several men had gathered around a striking portrait hanging on the wall of a well-to-do house. The owner Dr Rio narrated the story about the painting to the others.

He had been traveling when he came upon an old man in the street. The old man told Rio that their mutual friend Renato Winston was expecting him. The old man vanished.

Rio hadn't planned to but went to Renato's house. He found his friend had died and a funeral procession was about to begin. Renato had left several bequests to Rio, one of which was a portrait of Renato's great-grandfather, the old man himself.

"The Man Who Was Steam" was another story narrated by Dr Rio. He said that as a young man he had become interested in suspended animation. His research took him to a remote village in Arabia.

He found an alchemist whose laboratory had flasks containing a dark liquid. He was told each flask held the body of a man distilled into essences and each one still alive. After a thousand years they were to be revived.

Rio returned later and took a flask. He followed the instructions but messed up and prematurely released the occupant. The man reprimanded Rio, saying that the revival should have been done under high-pressure steam to keep him whole. Instead the man evaporated into thin air.

Revival Radio.

IS THERE A GHOST IN THE HOUSE? was apparently a failed audition for a radio revival drama. I was unable to find any useful information via Google. The Old Time Radio Researchers had a free mp3 available at www.otrr.org/OTRRLibrary

The only episode was "The Man In The Chair", which aired on 1963-06-20. No credits were given and the episode was only 13m27s long. The story was told by a narrator with a veddy posh English accent.

The narrator told of his grandmother's belief that her house was haunted. He stayed up nights hoping to hear the ghost but never did. From there he told of a walking holiday through the countryside.

He came to a country house and stayed a while. There was a girl in a nearby summer house who told him about an empty chair in the house. No one sat in it but the Major, and he was dead. Sometime later, the narrator nodded off in that room.

When he awoke, the Major was in the chair. He was dressed in a uniform of the 1800s and was solid, not a wraith. But dead. The girl came by and took the Major for granted.

The narrator walked back to the main house. The landlady told him she had no daughter and had never heard of the Major. The narrator returned to the summer house and found it empty.

Bad Movies.

AMITYVILLE IN SPACE (2022) was a bargain bin DVD I picked up in the Boxing Day sales at a shopping mall. Written by Mark Polonia and Aaron Drake, it was purposely an el-cheapo SFX movie. That took out some of the humour but what the hey, I spent more on beef skewers and soda pop just before leaving the food court and wandering into the video store.

I don't generally watch horror movies such as the Amityville series and have seen none of the preceding films. My expectations were low and the movie did not surpass them.

Wooden acting, bad dialogue, and poor pacing dominated from the beginning. People fuss about AI software making movies but one wonders if AI could be any worse.

The movie began in current times with a priest arriving to exorcize the haunted house. The procedure went horribly wrong. The priest was killed by the evil spirit and the house launched itself into the depths of space.

Jump forward to 3015 AD on board the spaceship Wyoming, whose mission was to destroy rogue black holes. Captain Halstead commanded. Dr Nurmi was the medical officer, Jacowitz was the weapons specialist, Maitland the navigator, and Vox the cyborg.

I'm not sure how an inanimate object could be described as rogue. Possibly a hazard to shipping lanes or planets. At one of those black holes, the crew spotted the Amityville house circling the event horizon. A pentagram suddenly appeared, floating in space next to the house and the event horizon.

The evil spirit came on board the Wyoming and proceeded to wreak havoc. Nurmi tried to warn the others, to no avail. Vox went on board the house. A humanoid invisible to the cameras suddenly interrupted transmission.

So what did the captain do? He and Nurmi took nerf guns and went on board the house, leaving two technicians on the ship. Actual nerf guns by the way. A good thing since they regularly carelessly pointed them at each other in violation of minimum firearms safety procedures.

They found the remains of Vox. The spirit possessed Nurmi, there was a crawling hand, and they found the still-fresh body of the priest. Nurmi figured he was in suspended animation, so they brought him back to the ship.

From there the standard alarums were trotted out. Ominous foreshadowings, initial disbelief, loud screams, and orchestral crescendos at every scene change. The priest was revived. The spirit took over humans to regularly foul up their plans. Everyone woke up screaming from nightmares at one time or another.

The spirit explained at great length how it would rule the universe, bwah-ha!-ha! Fast-forwarding is recommended through interminable conversations that resolved nothing.

There was a grand battle inside the house. A monster matching the description of a shoggoth touched off a gun battle, if nerfing can be considered as a gun battle. The priest had a bottle of holy water with him and successfully destroyed the shoggoth. Lovecraft would not be amused.

Back to the ship, from whence the house was blown up. Then a missile was launched at the pentagram. The spirit was still on board but the priest caught it and had the both of them beamed into the black hole. There was a twist though. The spirit had duplicated itself into a mission control commander back on the home planet. She had the final lines, bwah-ha!-ha!-ing and setting up a sequel.

WHATEVER HAPPENED TO NIKITA? PART 6
by Dale Speirs

[Parts 1 to 5 appeared in OPUNTIA #416, 468, 480, 498, and 525.]

"*The survivors of a nuclear war will envy the dead.*"
USSR Premier Nikita Khrushchev

Gimme That Old Time Radio.

These old-time radio series can be had as free downloads from www.otrr.org/OTRRLibrary

QUIET PLEASE was an anthology series of weird fiction and science fiction that aired on radio from 1947 to 1949, written and produced by Wyllis Cooper.

"Very Unimportant Person" aired on 1948-12-05. The narrator Tom and his girlfriend Ruth were standing by an aircraft in Maryland when they saw an atomic bomb detonate in the direction of Washington, D.C. They immediately took off and fled the mushroom cloud.

Tom tried calling CQ (anyone listening please respond) but got no answers. There was no place to hide in the vista of mushroom clouds. He steered north to Canada, hoping to find sanctuary in the snowy forests. The radio was silent.

Ruth behaved as a hysterical ninny, but that was how network shows portrayed women. They got a shock when they found a stowaway in back. He was gloomier than Ruth although not as frenetic. The three then discussed the end times upon them.

Another aircraft came alongside, a passenger plane also heading north. They chatted briefly but there wasn't much to say. Much agonizing at great length about Armageddon. Then the fuel ran out.

The plane kept flying. The stowaway had the controls. The propellers were stopped but the aircraft was gaining altitude. The passenger plane reported the same thing.

Below, as far as they could see, the planet was on fire. Other aircraft joined the first two, all now reaching up into space. The stowaway began quoting from Genesis and condemned all the sinners who died below. He said they were heading to a better world. Tom was doubtful. But it was all a dream. Boo, hiss.

"If I Should Wake Before I Die" aired on 1949-02-27. The narrator was Dr Anderson, who proclaimed himself a practical man. He discovered things. What use they were put to afterwards was no concern of his.

One such thing was a spaceship carrying three men in Earth orbit. His antagonist Don said the three men died, one of them Anderson's brother Edward. Dr Anderson (his first name was never given) was unmoved. To him, knowledge was worth any price.

There followed a long extended argument between Anderson and Don (no last name given). The debate was about the consequences of technology. Then a countdown was heard for the projection of an energy beam at the Moon.

The two men continued to argue at great length, touching on atomic warfare. Don shouted "*It's time for you to wake up!*". Then an alarm clock went off. End of episode. But it was only a dream. Boo, hiss.

Other OTR.

Sherlock Holmes was very successful on radio. He aired on several networks with several sets of actors from 1930 to 1956, encompassing the entire lifespan of old-time radio. Basil Rathbone and Nigel Bruce had a long run, but others played the parts before and after.

"The Case Of The Burmese Goddess" was written by Max Ehrlich and aired on 1949-04-18. The titular MacGuffin was a small jade statue said to bring death to anyone who possessed it. Dr Watson stated the case happened in 1911. Hold that thought.

Sir John Brandywine desecrated a Burmese temple to add to his collection. A Burmese priest came to buy it back but was rebuffed. Next up was a fanatical collector Reginald Bailey, also refused.

Brandywine soon departed this world from a poison dart such as used by Burmese priests. Sherlock Holmes told Dr Watson that he had the twin of the statue. Brandywine's executor auctioned off the statue to Holmes for £1,000.

The underbidder had flaking skin on his hands and his hair was falling out in an unnatural way. Soon enough, Bailey showed up at 221B and offered £10,000, again refused. Holmes correctly surmised that the foot traffic on Baker Street would soon increase dramatically in the darkest night.

Shots were fired, alarums were raised, and bodies and clues accumulated. The statue was stolen by Bailey's gang, who were then relieved of it by the Burmese priests. Good riddance, said Holmes. Let them have it and take it back to their temple where it belonged.

The second statue contained radium, hence its value. The Europeans who pursued it didn't care about art. The underbidder was a renegade technician from the Curie laboratory, hence his radiation poisoning.

In the epilogue, Holmes gave a homily on the uses of radioactive materials and what the future might bring. Watson chimed in with fears about current conditions. Radium is not bomb material but served as an excuse for the scriptwriter in 1949 to moralize, even though the story was set in 1911. Atomic weaponry wasn't even a surmise in 1911.

RICHARD DIAMOND, PRIVATE DETECTIVE aired on radio from 1949 to 1953. Available as free downloads from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

Private detective Richard Diamond, supported by his rich girlfriend Helen Asher, was an average investigator. He was played as a happy-go-lucky detective who got on well with the police. Noir, it wasn't, but the episodes were enjoyable listening.

"The William Holland Case" was written by Blake Edwards (of Pink Panther fame in later life) and aired on 1950-05-31. Richard Diamond was hired to locate a missing man named William Holland, last heard from in Bolivia. Police detective Walter Levinson was going on vacation, so Diamond convinced him to come along.

Upon arrival at San Bortas in the interior, they were met by gunfire from two snipers. Diamond was the better shot and killed both of them. The local police chief was very understanding about the shoot-out and shrugged off the fracas. Banditos, no doubt. Diamond didn't believe that explanation. The ambushers were waiting for him specifically, a targeted hit.

The village's main industry was a tin mine. Out at the mine, Diamond and Levinson saw a helicopter land. Helicopters were still an expensive novelty in those days. More gunfire and much running about. The mine was actually pitchblende, not tin, and was being exploited by Soviet agents. Another gunfight and the death rate soared. Diamond got a confession from one of the dying men that Holland was dead after having discovered the secret of the mine.

Not much more to do other than making a long-distance call to the American embassy and letting them know about the Soviets. Couldn't let them get uranium from Bolivia.

Revival Radio.

SF 68 was a brief South African science fiction radio series that aired in 1968. The stories were adapted from pulp digests. "The Answer" aired on 1968-05-17 and was based on a 1955 story by Phillip Wylie about atomic bomb testing in the Pacific Ocean. The American military vapourized a volcanic island with a fusion bomb, because they could.

In the aftermath, they found the body of a humanoid which had wings. They had killed an angel. The brass scrambled to suppress the story and control their troops. Even the atheists were upset. Much agonizing followed from the President on down.

Meanwhile the Soviets had the same problem from their atomic testing. They were even more upset at finding a dead angel in Siberia. Once everyone worked their way through the psychological traumas, the denouement revealed that the angels were bringing a message. "Love one another". On that sappy platitude, the episode ended.

SEEN IN THE LITERATURE

Planets.

Arsenovi, P., et al (2024) **Global impacts of an extreme solar particle event under different geomagnetic field strengths.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 121:doi.org/10.1073/pnas.2321770121

Authors' abstract: *The ozone layer protects life on Earth by absorbing solar ultraviolet (UV) radiation ~15 to ~35 km above the surface. The ozone layer can be depleted by solar particle events, which are short-lived bursts of high-energy particles which can alter atmospheric chemistry.*

Currently, the Earth's geomagnetic field deflects these particles, limiting their impact to the polar regions. However, geological records demonstrate periods throughout Earth's history where the geomagnetic field significantly weakened.

During those periods, cosmic ionizing particles can enter Earth's atmosphere at lower latitudes and damage the ozone layer, resulting in marked increases in surface UV radiation. Potential consequences include serious health hazards and longer-term climatic and evolutionary impacts.

Solar particle events (SPEs) are short-lived bursts of high-energy particles from the solar atmosphere and are widely recognized as posing significant economic risks to modern society.

Most SPEs are relatively weak and have minor impacts on the Earth's environment, but historic records contain much stronger SPEs which have the potential to alter atmospheric chemistry, impacting climate and biological life.

The impacts of such strong SPEs would be far more severe when the Earth's protective geomagnetic field is weak, such as during past geomagnetic excursions or reversals.

Here, we model the impacts of an extreme SPE under different geomagnetic field strengths, focusing on changes in atmospheric chemistry and surface radiation using the atmosphere-ocean-chemistry-climate model SOCOL3-MPIOM and the radiation transfer model LibRadtran.

Under current geomagnetic conditions, an extreme SPE would increase NOx concentrations in the polar stratosphere and mesosphere, causing reductions in extratropical stratospheric ozone lasting for about a year.

In contrast, with no geomagnetic field, there would be a substantial increase in NOx throughout the entire atmosphere, resulting in severe stratospheric ozone depletion for several years.

The resulting ground-level ultraviolet (UV) radiation would remain elevated for up to 6 years, leading to increases in UV index up to 20 to 25% and solar-induced DNA damage rates by 40 to 50%.

The potential evolutionary impacts of past extreme SPEs remain an important question, while the risks they pose to human health in modern conditions continue to be underestimated.

Satellites.

Farrell, W.M., et al (2024) **Possible anthropogenic contributions to the LAMP-observed surficial icy regolith within lunar polar craters: A comparison of Apollo and Starship landings.** PLANETARY SCIENCE JOURNAL 5:doi.org/10.3847/PSJ/ad37f5 (available as a free pdf)

Authors' abstract: *This work assesses the potential of midsized and large human landing systems to deliver water from their exhaust plumes to cold traps within lunar polar craters.*

It has been estimated that a total of between 2 and 60 tonnes of surficial water was sensed by the Lunar Reconnaissance Orbiter Lyman Alpha Mapping Project on the floors of the larger permanently shadowed south polar craters.

This intrinsic surficial water sensed in the far-ultraviolet is thought to be in the form of a 0.3% to 2% icy regolith in the top few hundred nanometers of the surface. We find that the six past Apollo Lunar Module midlatitude landings could contribute no more than 0.36 tonnes of water mass to this existing, intrinsic surficial water in permanently shadowed regions (PSRs).

However, we find that the Starship landing plume has the potential, in some cases, to deliver over 10 tonnes of water to the PSRs, which is a substantial fraction (possibly >20%) of the existing intrinsic surficial water mass. This anthropogenic contribution could possibly overlay and mix with the naturally occurring icy regolith at the uppermost surface.

A possible consequence is that the origin of the intrinsic surficial icy regolith, which is still undetermined, could be lost as it mixes with the extrinsic anthropogenic contribution. We suggest that existing and future orbital and landed assets be used to examine the effect of polar landers on the cold traps within PSRs.

Alien Life.

Petkowski, J.J., et al (2024) **Reasons why life on Earth rarely makes fluorine-containing compounds and their implications for the search for life beyond Earth**. SCIENTIFIC REPORTS 14:doi.org/10.1038/s41598-024-66265-w (available as a free pdf)

Authors' abstract: *Life on Earth is known to rarely make fluorinated carbon compounds, as compared to other halocarbons. We quantify this rarity, based on our exhaustive natural products database curated from available literature.*

We build on explanations for the scarcity of fluorine chemistry in life on Earth, namely that the exclusion of the C-F bond stems from the unique physico-chemical properties of fluorine, predominantly its extreme electronegativity and strong hydration shell.

We further show that the C-F bond is very hard to synthesize and when it is made by life its potential biological functions can be readily provided by alternative functional groups that are much less costly to incorporate into existing biochemistry. As a result, the overall evolutionary cost-to-benefit balance of incorporation of the C-F bond into the chemical repertoire of life is not favorable.

We argue that the limitations of organofluorine chemistry are likely universal in that they do not exclusively apply to specifics of Earth's biochemistry. C-F bonds, therefore, will be rare in life beyond Earth no matter its chemical makeup.

Life does not make representatives of all the types of chemicals that could be constructed from the non-metallic elements that makeup biochemistry. There are some unexpected lacunae in the coverage of stable chemical space by the chemistry of life.

Exploring why life fails to fully use chemistry in these ''gaps'' is as important as explaining why life does exploit a specific atom, bond, or molecule class found in biochemistry.

Such explanations illuminate the chemical nature and evolution of life on Earth, and address whether profoundly different chemistry could be the basis of life on other worlds. There are several areas of chemical space that appear to be avoided by life.

The recently published quantified examples and mechanistic explanations for such gaps in Earth-life's biochemistry include the relative absence of chemical bonds between nitrogen and sulfur atoms (N-S bonds) in biochemistry, the exclusion of trivalent phosphorus chemistry from the chemical repertoire of life, or the absence of organosilicon functional groups.

We hypothesize that the existence of such avoided areas of chemical space is a specific example of a more general phenomenon: the chemistry that life can use is limited not only by obvious environmental constraints such as the availability of elements or stability of molecules in water but also by a range of more subtle constraints on how a self-consistent biochemistry can be assembled.

Origin Of Life.

Ostrander, C.M., et al (2024) **Onset of coupled atmosphere-ocean oxygenation 2.3 billion years ago.** NATURE 631:doi.org/10.1038/s41586-024-07551-5 (available as a free pdf)

[The first life forms were photosynthetic algae generating oxygen. The initial oxygen was used up oxidizing minerals and took hundreds of millions of years. Then a surplus of oxygen built up, which created our modern atmosphere and allowed animals to evolve.]

[The Great Oxidation Event was not a smooth continuous event. As plate tectonics exposed fresh minerals, the surplus oxygen would be sucked back out of the atmosphere and oceans, creating anoxic periods. Then more oxygen would build up until eventually any rocks that could be oxidized were.]

Authors' abstract: *The initial rise of molecular oxygen (O_2) shortly after the Archaean-Proterozoic transition 2.5 billion years ago was more complex than the single step-change once envisioned.*

Sulfur mass-independent fractionation records suggest that the rise of atmospheric O_2 was oscillatory, with multiple returns to an anoxic state until perhaps 2.2 billion years ago.

Yet few constraints exist for contemporaneous marine oxygenation dynamics, precluding a holistic understanding of planetary oxygenation. Here we report thallium (Tl) isotope ratio and redox-sensitive element data for marine shales from the Transvaal Supergroup, South Africa.

Synchronous with sulfur isotope evidence of atmospheric oxygenation in the same shales, we found lower authigenic $^{205}Tl/^{203}Tl$ ratios indicative of widespread manganese oxide burial on an oxygenated seafloor and higher redox-sensitive element abundances consistent with expanded oxygenated waters.

Both signatures disappear when the sulfur isotope data indicate a brief return to an anoxic atmospheric state. Our data connect recently identified atmospheric O_2 dynamics on early Earth with the marine realm, marking an important turning point in Earth's redox history away from heterogeneous and highly localized 'oasis'-style oxygenation.

The timing and tempo of the initial rise of molecular oxygen on Earth, commonly referred to as the 'Great Oxidation Event' (GOE), remains a topic of intense debate.

This debate has been fueled, in large measure, by the links connecting O_2 to life. Large-scale O_2 production requires oxygenic photosynthesis, and so, by understanding the GOE, we can come to better understand one of life's earliest and most profound impacts on our planet.

The GOE forever changed the evolutionary trajectory of life on Earth, eventually setting the stage for the rise of animals. The evidence commonly referred to as a 'smoking gun' for the GOE is the disappearance of sulfur mass-independent isotope fractionation (S-MIF) from Earth's ancient sedimentary record.

The generation of S-MIF is mediated by photochemical reactions that occur in the absence of a stratospheric ozone layer, and therefore requires an atmosphere with negligible amounts of the O_2 from which ozone is derived.

One-dimensional photochemical models that simulate S-MIF production and preservation estimate a partial pressure of O_2 below 10-6 (0.0001%) of the present atmospheric level, which essentially amounts to trace levels of O_2.

Early datasets suggested that S-MIF sharply and irreversibly disappeared from Earth's sedimentary record 2.3 billion years ago (Ga). This rapid disappearance is captured most clearly in sedimentary rocks from the Transvaal Supergroup of South Africa, specifically those spanning the boundary between the Rooihoogte and Timeball Hill formations.

Taken at face value, these S isotope data seemed to indicate a singular and rapid atmospheric O_2 rise lasting approximately 1 to 10 million years. More recent datasets have, however, uncovered multiple episodes of S-MIF disappearance and reappearance in the overlying strata.

Similar S-MIF dynamics are found in sedimentary deposits from Western Australia and Fennoscandia. The minutiae of these expanded datasets remain a topic of continued investigation.

Nevertheless, their most straightforward explanation remains an oscillatory initial rise of O_2 in Earth's atmosphere, lasting a few hundred million years.

Although much progress has recently been made in our understanding of atmospheric O_2 dynamics across the GOE, our understanding of coeval marine O_2 dynamics has not kept pace.

Before the GOE, sporadic evidence of highly localized O_2 accumulation in 'oxygen oases' is found in sedimentary rocks formed in shallow marine environments alongside S-MIF evidence of a persistently anoxic atmosphere.

After the GOE, and since the disappearance of S-MIF, oceanic and atmospheric oxygenation have generally fluctuated in tandem, with changes to one directly affecting the other (albeit with some incongruency controlled by marine biogeochemical cycling; for example, during Mesozoic Oceanic Anoxic Events).

The importance of this transition away from oasis-style oxygenation is of major importance because it marks the first development of a stably oxygenated global surface ocean.

Paleobiology.

Stephenson, N.P., et al (2024) **Morphology shapes community dynamics in early animal ecosystems.** NATURE ECOLOGY AND EVOLUTION 8:doi.org/10.1038/s41559-024-02422-8 (available as a free pdf)

[Multicellular animals began evolving about 570 megayears ago during the Ediacaran period. In turn, this resulted in the first ecosystems replacing the monotonous algae-only systems. Frond-shaped animals initially became the most successful species of these ecosystems.]

Authors' abstract: *The driving forces behind the evolution of early metazoans are not well understood, but key insights into their ecology and evolution can be gained through ecological analyses of the in situ, sessile communities of the Avalon assemblage in the Ediacaran (~565 million years ago).*

Community structure in the Avalon is thought to be underpinned by epifaunal tiering and ecological succession, which we investigate in this study in 18 Avalon communities.

Here we found that Avalon communities form four distinctive Community Types irrespective of succession processes, which are instead based on the dominance of morphologically distinct taxa, and that tiering is prevalent in three of these Community Types.

Our results are consistent with emergent neutrality, whereby ecologically specialized morphologies evolve as a consequence of neutral (stochastic or reproductive) processes within niches, leading to generalization within the frond-dominated Community Type.

Our results provide an ecological signature of the first origination and subsequent loss of disparate morphologies, probably as a consequence of community restructuring in response to ecological innovation.

This restructuring led to the survival of non-tiered frondose generalists over tiered specialists, even into the youngest Ediacaran assemblages. Such frondose body plans also survive beyond the Ediacaran-Cambrian transition, perhaps due to the greater resilience afforded to them by their alternative ecological strategies.

Metazoans are first found widespread in the fossil record in the terminal Ediacaran, and form the Avalon assemblage (574 to 560 million years ago). Avalon communities are dominated by 'fractally branching' rangeomorphs and arboreomorphs, which represent the first radiation of animal body plans, alongside smaller populations of crown-group cnidaria and porifera.

However, studying the evolutionary drivers of these early animal communities is made difficult by the rarity of clear homologies between Avalon and extant organisms.

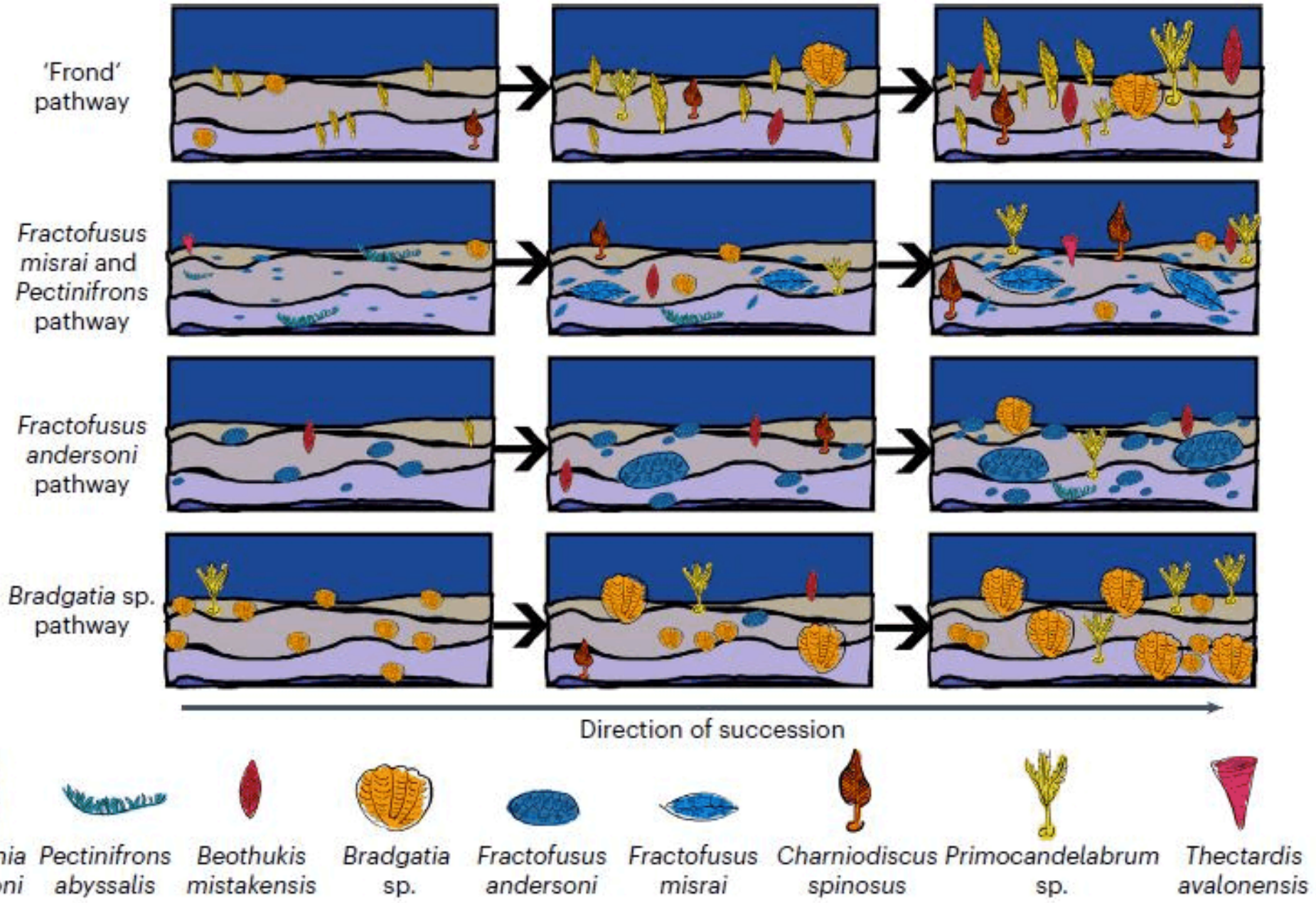
An alternative approach is to directly study the ecological structure (for example, community composition, patterns of interactions and associations between taxa) of these early communities, due to their near-census-style preservation.

The determination of ecological structure within communities can enable the inference of underpinning ecological processes, which in turn determine evolutionary drivers.

Tiering has been suggested as an ecological mechanism structuring Avalon communities whereby species occupy different vertical spaces as a consequence of resource partitioning, as seen in younger palaeocommunities.

Tiering has been suggested to increase throughout succession in Avalon communities, with tiering most prevalent in later-stage communities, driving structural changes and potentially shaping the evolution of large body size and frond morphology, for example, stem evolution.

[Diagrams are from this paper.]



Sandoval-Velasco, M., et al (2024) **Three-dimensional genome architecture persists in a 52,000-year-old woolly mammoth skin sample.** CELL 187:doi.org/10.1016/j.cell.2024.06.002 (available as a free pdf)

Authors' abstract: *Analyses of ancient DNA typically involve sequencing the surviving short oligonucleotides and aligning to genome assemblies from related, modern species. Here, we report that skin from a female woolly mammoth (Mammuthus primigenius) that died 52,000 years ago retained its ancient genome architecture.*

We use PaleoHi-C to map chromatin contacts and assemble its genome, yielding 28 chromosome-length scaffolds. Chromosome territories, compartments, loops, Barr bodies, and inactive X chromosome (Xi) superdomains persist.

The active and inactive genome compartments in mammoth skin more closely resemble Asian elephant skin than other elephant tissues. Our analyses uncover new biology.

Differences in compartmentalization reveal genes whose transcription was potentially altered in mammoths vs. elephants. Mammoth Xi has a tetradic architecture, not bipartite like human and mouse.

We hypothesize that, shortly after this mammoth's death, the sample spontaneously freeze-dried in the Siberian cold, leading to a glass transition that preserved subfossils of ancient chromosomes at nanometer scale.

Dinosaurs.

Lockwood, J.A.F. et al (2024) ***Comptonatus chasei*, a new iguanodontian dinosaur from the Lower Cretaceous Wessex Formation of the Isle of Wight, southern England.** JOURNAL OF SYSTEMATIC PALAEONTOLOGY 22:doi.org/10.1080/14772019.2024.2346573 (available as a free pdf)

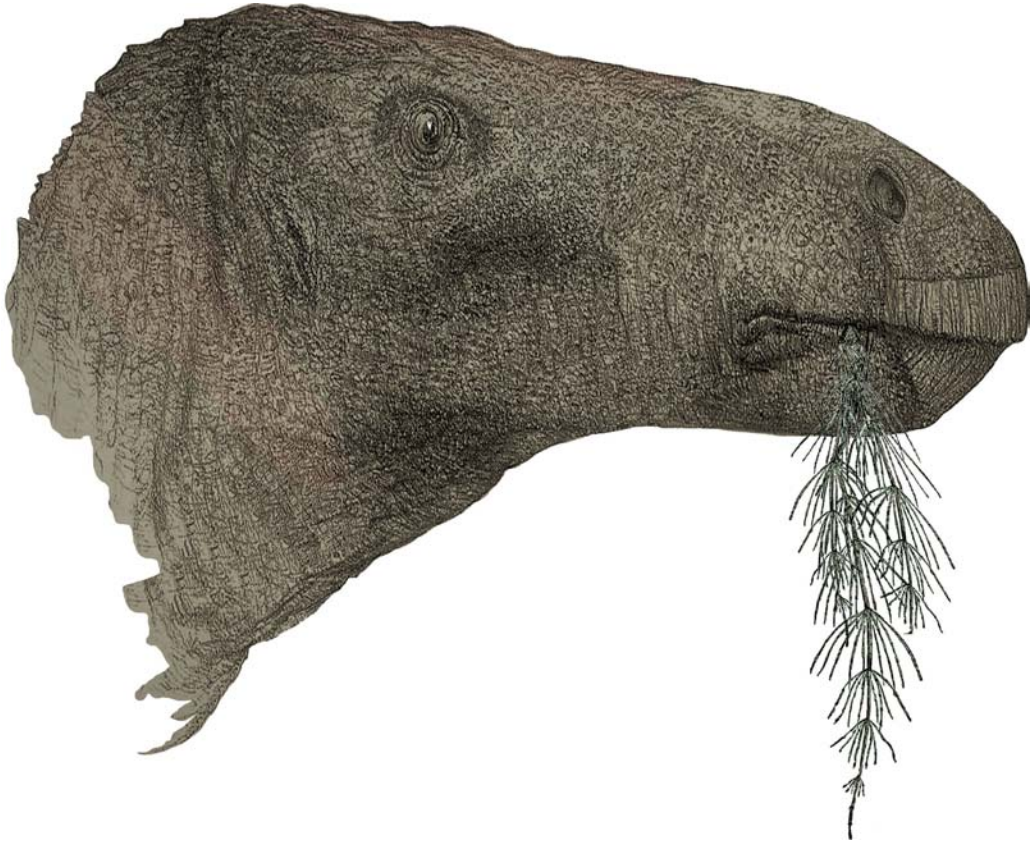
Authors' abstract: *A new iguanodontian dinosaur, Comptonatus chasei gen. et sp. nov., is described from the Lower Cretaceous Wessex Formation of the Isle of Wight. These strata provide an important record of a critical time in the development of iguanodontian diversity.*

The specimen, which is described here for the first time, was found and excavated in 2013 and represents the most complete iguanodontian skeleton discovered in the Wealden Group for a century.

A new taxon is diagnosed by several autapomorphies found in the neurocranium, teeth, coracoid and other parts of the body, together with a unique suite of characters. These include a dentary with a straight ventral border, and a markedly expanded prepubic blade.

These features set it apart from the sympatric Mantellisaurus atherfieldensis, Brighstoneus simmondsi and Iguanodon cf. bernissartensis, increasing the known diversity of this clade in the Barremian–early Aptian of England.

[Image is from this paper.]



Zoology.

Venditti, C., et al (2024) **Co-evolutionary dynamics of mammalian brain and body size.** NATURE ECOLOGY AND EVOLUTION 8:doi.org/10.1038/s41559-024-02451-3 (available as a free pdf)

Authors' abstract: *Despite decades of comparative studies, puzzling aspects of the relationship between mammalian brain and body mass continue to defy satisfactory explanation.*

Here we show that several such aspects arise from routinely fitting log-linear models to the data: the correlated evolution of brain and body mass is in fact log-curvilinear.

This simultaneously accounts for several phenomena for which diverse biological explanations have been proposed, notably variability in scaling coefficients across clades, low encephalization in larger species and the so-called taxon-level problem.

Our model implies a need to re-visit previous findings about relative brain mass. Accounting for the true scaling relationship, we document dramatically varying rates of relative brain mass evolution across the mammalian phylogeny, and we resolve the question of whether there is an overall trend for brain mass to increase through time.

We find a trend in only three mammalian orders, which is by far the strongest in primates, setting the stage for the uniquely rapid directional increase ultimately producing the computational powers of the human brain.

Francis, M.L., et al (2024) **Calcareous termite mounds in South Africa are ancient carbon reservoirs.** SCIENCE OF THE TOTAL ENVIRONMENT 926:doi.org/10.1016/j.scitotenv.2024.171760 (available as a free pdf)

[A report on termite mounds that have been continuously inhabited for 34,000 years.]

Authors' abstract: *Ecosystems that offer carbon sequestration by leaching bicarbonate to groundwater are valuable natural capital. One region that may offer this service is the west coast of South Africa.*

Over 20% is covered by soil mounds ("heuweltjies") up to 40 metres diameter, 2 metres high, inhabited by the southern harvester termite Microhodotermes viator and enriched in soil organic and inorganic carbon and soluble minerals.

We aimed to generate radiogenic and stable isotope data for soils and groundwater in a region where these data are absent, to 1) verify the atmosphere- soil-groundwater link, and 2) resolve the timing and pattern of calcite dissolution and water infiltration in the landscape.

Results show that soil and groundwater sulfate have the same marine aerosol source. Episodic calcite dissolution in mound centers, which increased during periods of global cooling, has been set against background input of marine aerosols since before the Last Glacial according to radiocarbon (^{14}C) ages.

Our data push back soil organic carbon ^{14}C ages of inhabited termite mounds to 13-19 ka (kiloannum, thousand years before present), nest carbonate ^{14}C ages to 33 ka, and mound soil carbonate ^{14}C ages to 34 ka, making these the oldest active termite features ever dated.

These ages are consistent with soil organic carbon and carbonate ^{14}C ages of regional, non-mound, coastal petrocalcic horizons formed by accumulation of carbonate leached from their overlying aeolian dune fields.

Harvesting activities of termites inject younger organic material around nests >1 metre deep, leading to continuous renewal of important soil carbon reservoirs at depth. Termite bioturbation increases the system's ability to dissolve carbonate.

The central, bioturbated part of the mounds have greater infiltration depths and greater calcite dissolution, whereas surrounding soils experienced more surface runoff. Calcareous termite mounds offer a mechanism to sequester CO_2 through dissolution and leaching of soil carbonate- bicarbonate to groundwater.

Human Prehistory.

Li, L., et al (2024) **Recurrent gene flow between Neanderthals and modern humans over the past 200,000 years.** SCIENCE 385:doi.org/10.1126/science.adi1768 (available as a free pdf)

Authors' abstract: *Although it is well known that the ancestors of modern humans and Neanderthals admixed, the effects of gene flow on the Neanderthal genome are not well understood. We develop methods to estimate the amount of human-introgressed sequences in Neanderthals and apply it to whole-genome sequence data from 2,000 modern humans and three Neanderthals.*

We estimate that Neanderthals have 2.5 to 3.7% human ancestry, and we leverage human-introgressed sequences in Neanderthals to revise estimates of Neanderthal ancestry in modern humans, show that Neanderthal population sizes were significantly smaller than previously estimated, and identify two distinct waves of modern human gene flow into Neanderthals.

Modern Humans.

Wilken, D., et al (2024) **The discovery of the church of Rungholt, a landmark for the drowned medieval landscapes of the Wadden Sea World Heritage.** SCIENTIFIC REPORTS 14:doi.org/10.1038/s41598-024-66245-0 (available as a free pdf)

Authors' abstract: *The UNESCO World Heritage Wadden Sea holds remains of a medieval cultural landscape shaped by interactions between man and natural forces. From the Netherlands to Denmark, human efforts of cultivating low-lying areas created a unique coastal landscape. Since the Middle Ages, storm floods widely drowned embanked cultural land and especially affected North Frisia (Germany), where once fertile marshland was permanently turned into tidal flats.*

One key region, the Edomsharde, was widely destroyed in 1362 AD. Medieval settlement remains still occur in the tidal flats around the island Hallig Südfall and are commonly associated with Edomsharde's trading centre Rungholt, ever since a symbol for the region's drowned landscapes and focus of this study. We present a first time comprehensive reconstruction of this medieval settlement by means of new geophysical, geoarchaeological and archaeological data.

Our results reveal remains of up to 64 newly found and rectified dwelling mounds, abundant drainage ditches, a seadike, and especially the discovery of Edomshardes's main church as important landmark in this former cultural landscape.

These finds together with the documented imported goods confirm a thriving society, involved in transregional trade and thereby close a significant gap in medieval history not only for North Frisia, but the entire Wadden Sea region.

Technology.

Doshi, A.R., and O.P. Hauser (2024) **Generative AI enhances individual creativity but reduces the collective diversity of novel content.** SCIENCE ADVANCES 10:doi.org/10.1126/sciadv.adn5290 (available as a free pdf)

Authors' abstract: *Generative artificial intelligence (AI), including powerful large language models (LLMs), holds promise for humans to be more creative by offering new ideas, or less creative by anchoring on generative AI ideas.*

We study the causal impact of generative AI ideas on the production of short stories in an online experiment where some writers obtained story ideas from an LLM. We find that access to generative AI ideas causes stories to be evaluated as more creative, better written, and more enjoyable, especially among less creative writers.

However, generative AI-enabled stories are more similar to each other than stories by humans alone. These results point to an increase in individual creativity at the risk of losing collective novelty. This dynamic resembles a social dilemma.

With generative AI, writers are individually better off, but collectively a narrower scope of novel content is produced. Our results have implications for researchers, policy-makers, and practitioners interested in bolstering creativity.

Speirs: But isn't that already the current situation? Individual stories may be well written but collectively the bookstore and library shelves are a mass of narrow productions. Science fiction is mostly military or long infodumps masquerading as hard SF. Fantasy is farm kids on a quest to gain the throne, or swords and dragons. Why would AI be any different?