OPUNTIA 583

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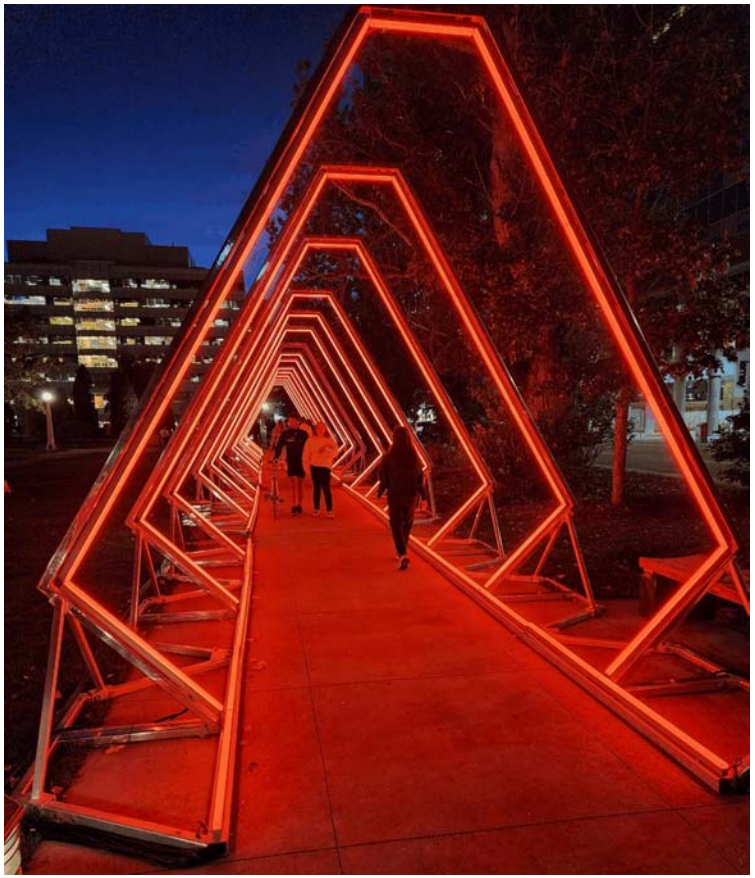
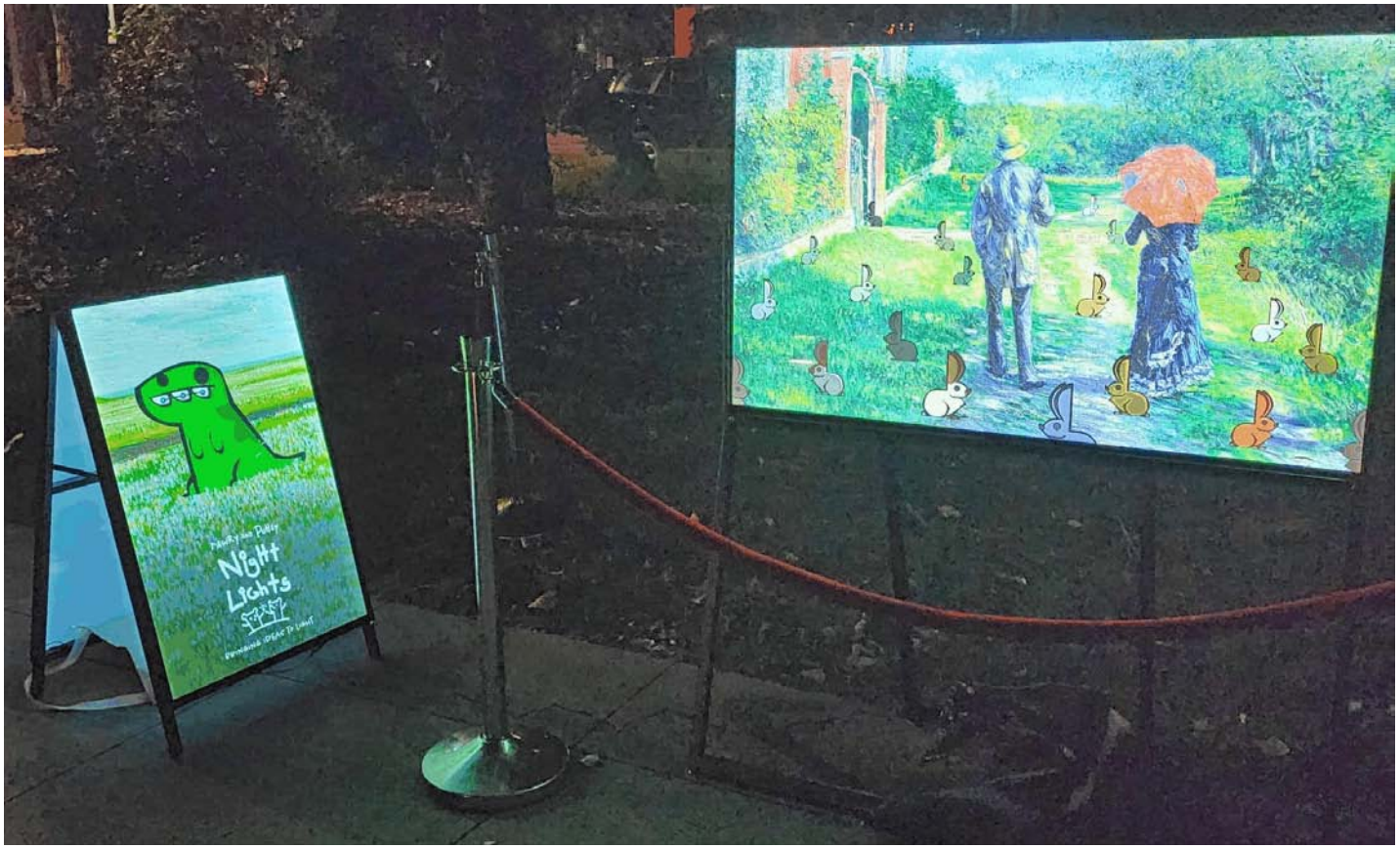
NIGHT LIGHT 2024

photos by Dale Speirs

A new lights festival began this year in the Beltline district of central Calgary which runs parallel to the downtown core. Night Light was held September 26 to 28 in three parks of the Beltline, so I moseyed on down, or at least the #7 bus did. The cover and this page shows some planetary bouncy bubbles.



Detourned paintings on large screens.



Laser projections on skyscrapers.

SCIENCE FICTION ANTHOLOGIES AND COLLECTIONS: PART 2
by Dale Speirs

[Part 1 appeared in OPUNTIA #566.]

An anthology is a book of stories by different authors. A collection is a book of stories by the same author. For these reviews, I won't mention every story and some may be reviewed elsewhere in one of my thematic columns.

The House Of Hugo.

AMAZING STORIES BEST OF 2023 was an anthology of 29 stories edited by Lloyd Penney. Available as a trade paperback from Amazon print-on-demand.

"Take Me To Your Leader" by Paul Saka led off, a humourous story about an alien trying to warn Earthlings about their impending fate. The poor creature had trouble attracting attention.

Pedestrians were too busy texting or playing games on their smartphones to pay attention to an alien. Once it found the legislature building, it had to run the gauntlet of receptionists, whose job was to prevent people from gaining access to their bosses.

"Been There, Done That" by David Ian was about the complexities of doing business on the planet Deja Vu. The place was riddled with time warps, which made for difficulty in what should be simple buy-and-sell transactions. Money was withdrawn before it was deposited. Negotiators kept slipping in and out of different timelines. That sort of thing.

"The Devil's Footlocker" by David Hankins took place on a space station. A vacuum cleaner salesman inadvertently got in the middle of a struggle between demons and angels for Pandora's Box.

The real one, that would unleash 1,000 demons and spell the end of civilization. Much to-ing and fro-ing with a good solution to the problem, that of tossing the box into the Sun, where no one could reach it.

"The Bother With Bowbles" by Jack Mackenzie was about the troubles a space freighter had with a consignor shipping cargo. The navigator had an inkling of what was happening when the freighter went off course because it didn't have as much mass on board as specified. Insurance fraud in space, which will undoubtedly happen in our future.

"Buzzer Beater" by David Newkirk emphasized a point that few sci-fi movies or games understand. Newton's Third Law is more applicable in space than Earth. In this case, a space pirate floating in zero gravity learned the hard way about equal and opposite reactions when firing a projectile gun.

"Next Level Tina" by John Andrew Karr considered what would happen when someone could use a 3-D printer to produce a teenaged daughter. An autonomous android that behaved like most teenagers. Shudder.

Words, Words, Words, He Said To Polonius.

WAR OF THE WORDS VOLUME 1 (2024) was an anthology chapbook edited by Alex Benarzi. The stories were entries in a writing contest staged by the Alexandra Writers Centre Society for the readercon When Words Collide 2024 (www.whenwordscollide.org).

Ordinarily I wouldn't review contest anthologies although I buy them to support their conventions. Judging was done by Robert J. Sawyer, which ensured a modicum of quality.

This was the first year that the AWCS operated the WWC convention and they did a professional job. The anthology was not a quick-print folded photocopy but full colour and typeset in square-back binding. Bear in mind that WWC covers all genres, not just science fiction.

The winning story was "Motherhood Etc". by Collette Burjack. The protagonist was bored with domestic life, not that she didn't love her children and husband. Her routine was disrupted when an alien spaceship crashed into her house. With two kids in tow, she went off to do battle with a monster and still get home in time for supper.

"Last Evening" by Barbara Darby was a western but nothing to do with lone gunfighters. This was a tale of homesteaders out on the lone prairie who had buried two newborn sons but raised two more children.

I am descended from homesteaders on both sides of my family. As a young boy I heard the stories from my elders about what it was like to live with no

electricity in uninsulated shacks. In later life I have many times driven across the dry flatlands of southern Alberta and seen countless abandoned homesteads.

The story emphasized the problems of living so far out on the land. This story moved me more than it will a third or fourth generation city slicker where an ambulance is only fifteen minutes away.

"Query" by Paulo de Costa was a series of letters from a succession of publishers to an author. The original publisher to whom he submitted his 650-page novel was bought out, then that one bought out, ad infinitum. Each one wanted different revisions and each wanted all the rights for a pittance. You know the tune.

"Play Of The Game" by Kirk McDougall was an extrapolation that has mostly already come to pass. The setting was the final play of a football game where both sides made multiple errors and penalties in their desperation to make or stop a touchdown with no time left on the clock.

The referees had a difficult task, with numerous sideline cameras and drones providing different views of the final play. Cameras don't lie but they can mislead or be interpreted differently. The story swerved back and forth as each view was considered. Coming soon to a football field near you, if not already happened.

New World In The Morning.

SHAPERS OF WORLDS VOLUME 4 (2023) was an anthology of 19 stories edited by Edward Willett. I reviewed the three previous volumes in OPUNTIA #566.

"Yiwu" by Lavie Tidhar was about a national scratch-and-win lottery where the prizes weren't cash. Whatever the winner's secret desire was became the prize, such as a trip to Mars. A lottery booth operator had a customer with a winning ticket who won nothing. Androids have no desires.

"Presumed Alien" by David Boop was an hilarious story about a lawyer hired by an alien to get its brother released. Both had assumed human form but the brother crashed his ship in the desert and was grabbed by the USAF Gray Team. The court proceedings were not standard practice but ultimately succeeded in getting habeas corpus for the captive alien.

"The Doting Duke And His Gravely Disturbed Daughters" by Roy M. Griffis was a humourous story about a traveling minstrel and his band of merry men. They came to a village with a haunted castle.

After some negotiation with the villagers, they agreed to a price for clearing the place. The duke wasn't too much trouble to vamoose but the daughters required more tactical thought. The job was done but the next difficulty was getting paid.

"There's Some Thing Under The Bed" by Garon Whited was a monologue by an interdimensional monster that hid under beds everywhere. It wasn't a slobbering evil thing that was evil because it was evil. It just fed on fear, plus whatever was lying under the bed, such as dust bunnies. A monster's gotta make a living somehow.

"I Really Need To Clear My Inbox" by Noah Lemelson was a series of emails from the manager of a condominium property. A new outside hot tub was installed. The construction stirred up some evil spirits who in this case really were evil because they were evil. The emails had to deal with complaints such as blood in the tub, screaming from suite 206, and pets being eaten.

Nonetheless.

NEVERTHELESS (2018) was alternatively titled Tesseracts #21 in a series of anthologies which is currently at #22 plus a lettered volume #Q. Each volume of this series is edited by a different editor or editors. Later volumes used a thematic title as their main heading.

I reviewed #22 in OPUNTIA #470 but upon checking my cumulative subject index I noticed that I had somehow missed #21. The omission was remedied at When Words Collide 2024 where I found a copy in the dealer bourse.

Tesseracts #21, aka NEVERTHELESS, was edited by Rhonda Parrish and Greg Bechtel. There were 23 stories on the theme of optimistic speculative fiction. The first five stories didn't seem to be the kind that will survive. Too close to wokeism or whatever else was trendy at the time.

Topicality makes a story fresh at the time but doesn't last. And now for a long digression. As an old-time radio fan, this is what I call the Bob Hope effect. He was one of the most popular comedians of 1940s radio, always in the top five.

His comedy was topical, quips on the politicians and celebrities of the day which got loud laughter. Listen to his OTR mp3s today, and you will be puzzled by many of his jokes. His comedy has not survived the test of time because its context is only known to those who were there in the 1940s.

So it is with science fiction about issues like AIDS and the Vietnam war back when, and COVID-19 and the Gaza war today. Writing science fiction too close to the present ensures that a story will soon be forgotten. When I was a young man, science fiction was flooded by endless post-nuclear war dystopias. Today the flood is climate change stories.

Popular back then were over-population stories about humans living in skyscraper hives. Those were written by city slickers who had never driven the Trans-Canada Highway between Winnipeg and Calgary.

End of digression. And so to "Steve McQueen And The Hope Particle" by Gavin Bradley. A story about a naive scientist who discovered that the emotion of hope could be quantified and distilled. He neglected to consider the practical uses of manipulating populations with hope. Those who funded his research were not as neglectful.

"A Walk In The Woods" by R.W. Hodgson was about a sojourner in the woods meeting up with a humanoid robot. It had escaped from the bank where it worked as a customer service representative. It carried a battery pack good for 15 days of freedom. No resolution to the story, just a robot walking in the woods.

"Anhedonia" by Meghan Bell was a virus pandemic story published two years before COVID-19, so it will be judged more by how accurate the fiction was compared to reality. Not bad actually. The details were different but not far off. The trolling and bad advice online was close enough.

The slow realization that this was a pandemic, not just a bad case of the flu, was accurate. The lockdown was more voluntary than the real world. Whatever else happened during COVID-19, we didn't have electrical and Internet outages as in this story. Nor was any mention made of the rush to develop vaccines.

All told, eerily similar to what really happened. Those of us who lived through the real pandemic will have a different viewpoint than future readers not old enough to remember the events.

"A Threadbare Carpet" by Kate Heartfield was a fantasy about a taxi driver who used a flying carpet to transport passengers. The carpet had seen better days and the passengers were often rude. A nice read because it considered daily life in the realm of magic. All very well to fight evil sorcerers and contest for thrones, but others have to do the scut work.

The Earth Still Abides.

EARTH: GIANTS, GOLEMS, AND GARGOYLES (2019) is an anthology of 17 stories edited by Rhonda Parrish. Earth as in elementals. Parrish has a Fire anthology out and is working her way through the rest.

To pick a few stories, leading off was "The Enforcer" by Chadwick Ginther. The protagonist was Frank, sewn together from the remnants of 20 unsuccessful soldiers. He lived in Winnipeg and had to deal with a golem that ripped up a graveyard.

The story was written as noir, with lots of blood and guts. There was a scene in a tavern whose owner allowed fights in her establishment. She was a ghoul and feasted on the losers of the bar brawls.

"Wings Of Stone" by Kevin Cockle was about a scientist Beth talking with her grandfather. Tomorrow she would push a button. The world would find itself under totalitarian control of cybernetic creatures. The story was set in Calgary. There were references to the Bow River, which is the singlemost defining part of Calgary, the Stampede notwithstanding.

One minor quibble though. There was a mention of someone dying on the QE2, which readers outside Alberta would think of as a cruise liner. Actually the QE2 is a four-lane highway between Calgary and Edmonton, about 400 km long. This is the Alberta equivalent of Highway 401 in southern Ontario, the heaviest traffic volume in our province with a fatality rate to match.

"Soil, Native And Otherwise" by Damascus Mincemeyer was the unfortunate tale of a warehouse worker at the Earthworks company. They received and shipped large crates of soil from around the world.

Only after he made a mistake scanning a bar code on a box did he learn about the use of the soil. The customers were vampires, who in this modern era were businessmen and tourists but still had to sleep on their native soil.

Instead of hauling a coffin of soil with them on international flights, they relied on Earthworks to supply the soil. Unfortunately the mistaken scan killed a vampire because the wrong soil was poisonous. Fortunately Earthworks was able to settle out of court by sacrificing the worker to the next-of-kin.

"Land Girl" by Laura VanArendonk Baugh was set during World War Two when Ulster was being blitzed. Out in the country, two Land Girls had to deal with a neighbour farmer scheming to get the farm they were working.

His mistake was to antagonize the earth spirits by sabotaging a stone wall that had stood for centuries. One of the girls knew how to summon the spirits to swallow him into a crevice. The Ministry had to do some fancy footwork when writing up the incident.

Miscellaneous Valdron.

DRUNK SLUTTY ELF AND ZOMBIES (2022) was a collection of 18 humourous stories by D.G. Valdron. In the first story, titled the same as the book, Salvra was the elf. Her companion Scabrous was a wannabe necromancer who played the part of a wimp with greater conviction.

They were inside a beseiged city which had long ago run out of proper food and now ate rats. The army surrounding them steadily catapulted a stream of dead bodies and some still screaming as they fell into the city. A Gray Alien arrived, having crashed its flying saucer. With nothing better to do, it began taking samples of everything. In particular it really enjoyed probing humans.

Zombies stumbled about the city streets. They were slow moving and feeble because rotting bits kept falling off them. This made them a nuisance rather than a terrifying threat.

The plot made numerous right-angle turns, although to be fair every event was consistent with the others. In the end, almost everyone died as both the city and the beseigers hit the same denouement.

"Friend Life" was about the rediscovery of Earth by humans who abandoned the planet millennia ago. They went out into space, leaving behind contagious diseases, insect pests, and predators such as tigers.

Consequently the returned humans had no knowledge about how to deal with diseases. They would soon learn as their starship spread the diseases around the galaxy.

"Training Day" was in the aftermath of a brief alien invasion. They mined what they wanted and left hyper-toxic contamination behind. They also left garbage behind that the remnants of humanity scavenged to advance their technology. Humans built gigantic exoskeletons for the return of the aliens. Next time they would be ready.

"Consumer Reports: Monsters" was marred by formatting errors that ran paragraphs together. However the story managed to provide useful advice for those afflicted by big ugly creatures.

For example, if you are strolling on the shores of Loch Ness and the monster rises out of the water to eat you, hold up your smartphone and take a photo. The monster is notoriously camera-shy and will immediately flee.

"The Troll's Trap" was about the time Blogg the Barbarian was caught in a troll's snare. Standard methods of derring-do did not avail him. He was bound for the stew pot when his constant chattering annoyed the troll into releasing him. The troll figured correctly that if Blogg was released then he would breed many stupid children for future easy capture and feeding.

"Assembly Instructions" was about an alien starfaring species called the Valach. They visited Earth long after eukaryotic life had gone extinct. That would be us, all animals, and all land plants.

They decided to reconstruct some of the species but got the DNA wrong. Giant humans with tentacles, parasitic larvae that ate their hosts from within, and other carnivorous nasties. As the man said in that Jurassic movie, first it's ooh-ing and aah-ing, then the screaming begins.

"Usher Of The Falling House" was set in a fantasy world where a playwright passing through town staged a play. It was the thing indeed, where orcs, trolls, humans, and other creatures got involved both on stage and in the audience. After the riot and the play both concluded, everyone agreed they had a good time.

Life In A Raspberry Patch.

At the When Words Collide 2024 readercon in Calgary, I bought some chapbooks of collected stories by Michèle Laframboise, each with five stories. She was there at the table and autographed the books.

I forgot to ask if she really was a raspberry or if her name was a pseudonym. The books were all copyrighted 2022 but the stories had been published in previous years in various prozines.

Laframboise wrote most of the stories in French and translated them into English herself, although some were translated with assistance by others. I spoke with her in English without difficulty so her translations were probably accurate.

I mention this because a problem with translations is that the reader can't be certain if any defects were the fault of the author or the translator. And so to the books, beginning with 5 HARD AND CRUNCHY SF TALES.

"Thinking Inside The Box" was the first story. A group of humans were traveling on board a Loonguni starship. The vessel was composed of hundreds of box compartments which shifted around the Drive as it propelled the starship. A renegade human sabotaged the ship causing no end of problems.

Bit by bit, with alien thinking, the Loongumi managed to jury-rig the starship to make their destination. The story displayed the alien thought processes quite well. Not just spot-weld a bus bar, the methodology illustrated the other way of thinking.

"Ice Monarch" was about a cyborg servant rebelling against his masters in a future world, a dying Earth. Ice Lords, mobile palaces, mobile mines, rebel villages, and all that.

"Closing The Big Bang" wasn't quite a restaurant at the end of the Universe. The Big Bang Bar starship was cruising at a system whose star became a red giant. Unfortunately the thrusters failed to engage, leaving the rich customers crispy fried.

"Women Are From Mars, Men Are From Venus" was a dystopian story set on Mars. The protagonist Domik had everything going against her, but then again so did everyone else on Mars. The colonization wasn't going well. The economy and the technology slowly slid downward. The ending was a wish fulfilment, too implausible to believe as a passing starship rescued Domik.

"Cousin Entropy" was a monologue by a cosmic entity about the lost battle against entropy. The somewhat happy ending was that black holes were the entrances to new universes.

5 HARD AND HOPEFUL SF TALES was the next volume. Leading off was "Ganymede's Lamps", set on that satellite of Jupiter. A kindly uncle gave a young girl a living lamp, bought from a pedlar who got it from an alien world.

The lamp climbed up a wall, rooted itself, and began reproducing. Like tribbles, they were too much of a good thing. The Ganymede colony was in trouble because the lamps were sucking up all their electricity. The solution was to lure the lamps outside with a heat source after shutting off the heat and power inside. From there, the lamps were led to a crevasse that took them far into the icy core of Ganymede.

"Essential Maintenance" was about a repair technician on board a space cruise ship. He had to be respectful of annoying passengers, bratty children, and still maintain the artificial gravity. Plus he was in tongue-tied love with a waitress. Life on the lower decks.

"Renter's Report" was a summary from three viewpoints about their stay at a resort on a tropical planet. Father, mother, and teenaged son saw events differently. The lush luxury hid sullen natives doing the grunge work, the incomplete facilities left by lowest-bidder contractors, and, on the last day, the uprising.

"Moby Dick's Doors" had a convoluted plot whose elements eventually tied together neatly. A cargo starship had been sabotaged by space pirates. They engineered a bio-emergency that sealed off the crew with locked doors. Eventually the crew figured out a work-around to stymie the pirates. A puzzle story.

"October's Feast" was the final story, about an advance party from an Earth starship checking out a new planet. The critical factor was whether any of the lifeforms were edible for humans. The starship had both preserved and synthetic food but for a colony to survive the settlers would have to grow their own.

MR AND MRS DETECTIVE: PART 4
by Dale Speirs

[Parts 1 to 3 appeared in OPUNTIAs #527 and 544, and 564.]

From the 1930s to the 1960s, there was a fad in mystery fiction for husband and wife sleuths. Various movies and radio series were based on novels of couples such as Mr and Mrs North, Nick and Nora Charles (aka the Thin Man), and Pat and Jean Abbott. The concept survived into the 1970s with the television show MCMILLAN AND WIFE.

Some couples were strictly amateurs, such as the Norths, while others had the husband as a police officer or private detective with the wife tagging along. The radio series are available as free mp3s from www.otrr.org/OTRRLibrary.

The Charles.

THE THIN MAN was a 1933 novel by Dashiell Hammett. The protagonists were Nick and Nora Charles, wealthy amateur sleuths. They became a radio series from 1941 to 1950.

THE ADVENTURES OF THE THIN MAN were often transcribed for the American armed forces radio services under different show titles. These transcriptions were disks circulated around overseas camps and ships, so they had a better chance of being converted to mp3s in the modern era than poorer-quality air checks.

Hammett was named as a Communist sympathizer during the Red Scare and forced off the air in the early 1950s, which took down the radio series. By the late 1950s, the witch hunters had left the field and a television series aired for two seasons from 1957 to 1959.

"The Case Of The Glamorous Clue", also known as "The Caprini Necklace", aired on 1944-06-16. Nora Charles had been away on a long trip while Nick was tangled in a murder case after a showgirl's body was found in the Charles' apartment.

Actress Shirley Booth helped Nick solve the crime. Boomers will remember her as the matronly housekeeper in the 1960s television series HAZEL, but in 1944 she was a very sexy woman on the Broadway stage. All the details were splashed about in the New York City newspapers. Nora returned home furious. She was a jealous woman who jumped to conclusions at the slightest provocation.

Nora was diverted when a friend's body was found dead in their apartment. What? Another one? This time it was her responsibility to investigate. She promptly got herself trapped by a Peter Lorre sound-alike who had his assistant torture her.

What he wanted to know was where the Caprini necklace was, which she didn't know. Assorted alarums followed here, there, and everywhere. No one informed the police.

Although the necklace served as a MacGuffin, the main motivating factors among the guilty were jealousy and greed. The Charles weren't much better, which makes the listener to wonder why they stayed married.

"Nora's Night Out" aired on 1944-10-06 as an episode of MYSTERY PLAYHOUSE. Nick Charles was worried because Nora hadn't come home the previous night. Ebenezer Williams, sheriff of Crabtree County, stopped by just as Nick got a call from a stranger.

The stranger claimed he had married Nora last night, then cut off with a strangled choke. Another man named Leo phoned next, saying he had seen Nora with another couple. Those calls dealt with, Nora arrived home, drugged and disorderly.

When she woke up, she had no memory of the night's events. Nick and Ebenezer began back-tracking her trail and soon found the first corpse, identified as Bill Martin. Many other alarums quickly followed along the trail.

The name Bill Martin kept appearing, as did additional corpses. No one bothered to notify the police. Ebenezer was the one who solved the case and explained in great detail who did what to whom. The killer used Nora to establish an alibi. An overly convoluted plot.

The Abbotts.

Pat and Jean Abbott were latecomers to the married sleuths subgenre, based on the novels by Frances Crane. On radio, ABBOTT MYSTERIES aired from

1945 to 1947. The series was revived for the 1954-55 season as THE ADVENTURES OF THE ABBOTTS. The radio episodes were written by Howard Merrill.

The Abbotts lived in San Francisco. Jean usually narrated the segues, while Pat, a private detective, did the action scenes. She was a jealous wife. They bickered anytime he went near a good-looking woman. Her main function was to have things explained to her and frequently be kidnapped.

"The Fabulous Emerald Necklace" aired on 1955-04-03. Jean Abbott opened the episode by asking: "*After all, if a girl wears a dazzling necklace worth a fortune, does it make a man want to kiss her or kill her?*"

Cathy Blake had the necklace in question, courtesy of her millionaire husband Dexter. She was white trash, a divorcée with poor manners. The actress played her imitated Mae West's voice, a bad girl if ever there was on.

Pause for digression. I've noticed when listening to old-time radio shows that Mae West and Peter Lorre, both of whom had distinctive voices, were popular with stock radio actors. Hussies were inevitably given either Mae West's voice or a Brooklyn accent thick enough to cut with a knife. Creepy criminals either spoke like Peter Lorre or had Slavic accents.

Back at the plot, as the Blakes walked home from a party, they were held up by a gunman who snatched the necklace. Dexter put up a fight and was shot dead. Frank Tracy, an adjustor from the he insurance company, called in Pat Abbott to investigate.

The necklace was insured for $200,000, or about $2 million in today's depreciated currency. The day after the theft the insurance company received a ransom note offering to return the necklace for $50,000. The thief knew the gem stones were identifiable and would be difficult to fence, so a reasonable ransom was an alternative.

Cathy was interviewed by Pat. She said she would receive a $500,000 life insurance policy and Dexter's multimillion dollar estate. He didn't believe her story about the heist and said so to her face. Her response was to proposition him and offer her telephone number. Not at all the grieving widow.

Pat thought Cathy might have hired the thief. The deal would have been for him to shoot Dexter during the heist and keep the necklace as payment. Since Jean had to have something to do, she was fitted out with a paste necklace that looked like a million dollars and acted as bait. Al Francis was a cultured smooth talker who hit on her in a nightclub, and seemed the obvious suspect.

While that thread played out, Pat dealt with Cathy. Further research showed she was a woman with a past. Three husbands prior to Dexter, two of whom were, as the saying goes, known to police. She had evaded a serious drug conviction by paying off the judge. Her response was to threaten Pat with dire consequences.

Tracy was briefed on the situation and told that Pat had a suspect in mind. Tracy slipped up though, and the alert listener will catch it immediately. Later in their conversation, Tracy mentioned Francis by name, even though Pat had not told him that.

The next night Tracy paid a visit to Francis, got the necklace, and then tried to delete him from the telephone directory with a bullet. Pat arrived in the nick of time and saved Francis. He took both men to the police station. Cathy wasn't in the deal at all.

"The Pink Elephant" aired on 1955-04-10. The title referred to a San Francisco nightclub of that name. Gill McIntyre was a newspaper editor who was threatened by Louis Conido.

The latter had just been released from prison, having been sent there by a newspaper exposé. Conido said he was going to kill McIntyre, but not immediately because he wanted to engage in some psychological warfare.

Pat and Jean Abbott were dining in the Pink Elephant, squabbling with each other as they often did. She took a turn on the club piano but fortunately it was near closing time and most of the patrons were gone. One such customer still there was Marian, girlfriend of Gill, who had expected to meet him there. He never showed, so she went home.

When Gill did arrive, he was a nervous wreck from Conido's threat. The mobster himself showed up to turn the screws but instead was shot dead by an unknown assailant. Sammy the piano player said he didn't see where the shots came from. The police were stymied, as they so often were.

Sammy didn't approve of Marian's loose behaviour and said so to her. While they argued, the Abbotts went over to McIntyre's office for a spot of break-and-enter. The newspaper offices were deserted until the afternoon shift came on, so they were able to snoop about.

Pat picked the lock of McIntyre's desk. Papers inside revealed that Gill and Marian had taken over Conido's operation after he was sent to prison. The Abbotts noticed blood dripping from a nearby roll-top desk. Opening it, they found McIntyre's body, a copy spike driven into his head.

They left everything as before and went back to the Pink Elephant without calling the police. Presumably the cleaning staff would notice the blood dripping on the floor and call someone.

Marian seemed a logical suspect, so the Abbotts acted nonchalant. Sammy was on the piano but Pat insisted, rather aggressively, that Jean play for awhile.

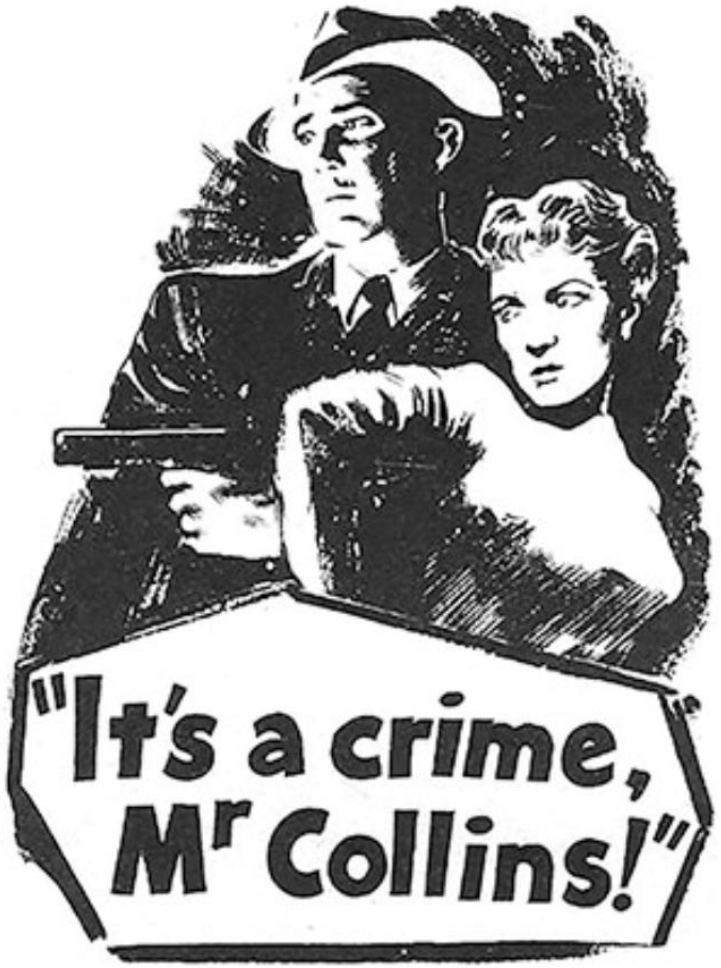
His reason became obvious when Jean noticed certain keys wouldn't play properly. Sammy had hidden a gun inside the piano. He blubbered a confession about both murders.

A tomato surprise was thrown into the room when Sammy said he was acting to protect his daughter Marian. Nobody knew she was his offspring. The ending was straight out of any bad soap opera as Sammy and Marian got emotional.

The Collins.

IT'S A CRIME, MR COLLINS was an old-time radio series on the Mutual network, copying the Abbotts on the NBC network. San Francisco private investigator Greg Collins was assisted by his wife Gail. The series was a blatant imitation of the Abbotts, with enough name changes to avoid a plagiarism lawsuit.

The series only ran for a half-season from August 1956 until February 1957, but the surviving mp3s are from an Australian syndication. Old-time radio was on its last legs by then, with little original programming left.



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"The Green Stop Light" aired 1957-03-25. Greg and Gail Collins were squabbling as usual. They were traveling and stopped at a roadside fast-food outlet. The waitress was a sexy carhop named Lulu who flirted with Greg.

She took their order and went in back. As they waited to be served, a man staggered in and died. "*Gee*", said Lulu as she returned, "*I didn't think the food here was that bad.*"

The Collins were en route to Gail's Uncle Ollie, a car dealer who was selling them a new car at cost. They left the dead man to the local Deppity Dawg and continued down the street to Uncle Ollie.

After taking delivery of their new car, Greg insisted on staying at a motel just to see how the murder case turned out. Someone stole their car within an hour. The Deppity Dawg gave them a ride to the state police office to report the theft.

Greg was suspicious of Lulu and Ollie's salesman Harry. Collecting clues and scattering alarums, the pursuers went to a tramp steamer being used to ship stolen cars to South America. The Deppity Dawg showed up and inadvertently caught the culprits. Back to the café, where Lulu served her last meal before going off to the big house.

"The Brown Alligator Briefcase" aired on 1957-05-06. Very muddy sound in this transcription. The Collins were vacationing in Italy when Greg was approached by a young woman whose brother was in distress.

The plot was as murky as the sound. There was murder, blackmail, and a shifty underworld sneak whose drink was flavoured with strychnine. Greg dealt with a police chief who spoke in a Hollywood Italian accent, datsa sure.

The culprit set a fire to kill the Collins but they were booked for the series and he wasn't. And so to the trans-Atlantic flight. Gail recommended to listeners that if they ever flew overseas, use black luggage.

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 2024-09-24
Etobicoke, Ontario

I have been responding to fanzines for more than 40 years now, and during all that time, I always had another zine to work on. Fanzine fandom is indeed fading. After I respond to your zines, my Zines to Loc file will be empty. The feeling of achievement I thought I'd feel is not there, but it does feel weird, and perhaps a little sad. Anyway, on to the issues.

OPUNTIA #581: I have seen the odd pelican in the Toronto area, but they are rarities, or were blown off course. The one bird that does do well here (besides the gulls) are the cormorants, and they are often seen hanging about the breakwater just offshore in Lake Ontario.

[Pelicans are migratory in Alberta. They are found throughout the province, even within the city of Calgary, during the summer. In September they begin working their way south to Louisiana for the winter.]

Ukraine does have amazing stamps these days. I would have to wonder where they get them printed. If they are done in Ukraine, there must be a government print shop in the far west of the country.

[I don't know the exact location of their printing works but the stamps are produced within Ukraine.]

Philatelists must love the colourful stamps which often have some hidden meanings, and the country has another source of cash to fight against Russia. Kudos to the designers of the stamps; they get the message out while still being pleasing to the eye.

The titles and plot descriptions for old-time radio make me wish we could return to those days, and still listen to some fresh radio drama. The CBC got rid of their radio dramas, and I still think that was a mistake. However, as you say, television won the war, and I suspect that the CBC's radio drama ratings were probably low.

[One annoying thing about the CBC is that they keep their old-time radio recordings under lock and key. That is why I review so few Canadian OTR shows. They simply aren't available as free downloads like the American series.]

OPUNTIA #582: [Re: Calgary's water main break] We sure heard about your water restrictions. Meanwhile, we have had rainfalls that caused some areas to flood. The water never seems to be where it's really needed.

[The day before your letter, September 23, repairs were completed and Calgary's water service returned to normal.]

Repairing and maintaining infrastructure is never a sexy plank for a political party's platform, but at some point, it has to be done. So far, what has been the public response to the return of Naheed Nenshi, this time as head of the Alberta NDP?

[Nenshi, former mayor of Calgary, is flogging a dead horse. The disastrous single term that the NDP (labour-socialist) had when in power will keep the Tories in power for years to come.]

I rarely see Little Free Libraries in my own travels. I've read that too many people take books without putting something else in for exchange, and people are taking them down, disappointed in others, and running out of books to put in.

[Calgary is blooming with LFLs. I suspect part of the reason is that there are no secondhand book stores left. Those such as myself have no way of thinning our libraries except LFLs and blue recycle bins. The younger generation only reads on screens.]

It is kind of sad when magazines that everyone seems to love announce that they will be discontinuing publishing by a particular month because of low sales and circulation. I am under some pressure to convince those who run the Amazing Stories website to return to a magazine format, but the money just isn't there.

I have decided that I simply cannot go to any future When Words Collide, mostly because of money. However, I will be getting in touch with the folks at Can*con in Ottawa, and seeing if there would be any programming suitable for me, or if I could provide some programming, or be on some panels.

Any comments on AMAZING STORIES: BEST OF 2023?

[You will have seen page 6 of this issue. I look forward to the 2024 volume.]

We are starting our initial packs for the World Fantasy Convention, and hoping we get it all right. The only other time we'd been to a World Fantasy Convention was in 2001 in Montréal, and we were staff running the green room. I have questions for the organizers, and sometimes, I even get answers.

As of now, I do not belong to any editors or writers groups. Editors Canada, I am still looking at. A while ago, someone from SFWA was nosing around my LinkedIn page, and while I didn't find out who, I think they were poking about looking for potential new members. SFWA membership is US$100 a year, so that's kinda out of the question.

There don't seem to be any editors associations. There are editors pages on Facebook, but much of the pages I see are mostly opportunities to brag. Perhaps I am best on my own.

WHEN WORDS COLLIDE 2025

Calgary's annual readercon When Words Collide has a membership limit of 1,000 plus volunteers and guests. The event always sells out a few months before. Reports of previous WWC conventions appeared in OPUNTIAs #71, 253, 266, 282, 318, 350, 387, 421, 452, 481, 507, 532, 555, and 580.

The 2025 WWC will be held August 15 to 17 at the Delta Southland Drive Hotel. The Alexandra Writers Centre in Calgary are the organizers. They did a good job in 2024 and will no doubt do so again in 2025. Details from www.whenwordscollide.org

Numerous authors, editors, and publishers will be in attendance. The dealer bourse is restricted to books. The average customer buys in tote bags full.

SEEN IN THE LITERATURE

Astronomy.

Oei, M.S.S.L., et al (2024) **Black hole jets on the scale of the cosmic web.** NATURE 633:doi.org/10.1038/s41586-024-07879-y (available as a free pdf)

Authors' abstract: *When sustained for megayears, high-power jets from supermassive black holes (SMBHs) become the largest galaxy-made structures in the Universe.*

By pumping electrons, atomic nuclei and magnetic fields into the intergalactic medium (IGM), these energetic flows affect the distribution of matter and magnetism in the cosmic web and could have a sweeping cosmological influence if they reached far at early epochs.

For the past 50 years, the known size range of black hole jet pairs ended at 4.6 to 5.0 megaparsecs, or 20 to 30% of a cosmic void radius in the Local Universe. An observational lack of longer jets, as well as theoretical results, thus suggested a growth limit at about 5 Mpc.

Here we report observations of a radio structure spanning about 7 Mpc, or roughly 66% of a coeval cosmic void radius, apparently generated by a black hole between 4.4 and 6.3 Gyr after the Big Bang. The structure consists of a northern lobe, a northern jet, a core, a southern jet with an inner hotspot and a southern outer hotspot with a backflow.

This system demonstrates that jets can avoid destruction by magnetohydrodynamical instabilities over cosmological distances, even at epochs when the Universe was 7 to 15 times denser than it is today. How jets can retain such long-lived coherence is unknown at present.

Planets.

Zenhäusern, G., et al (2024) **An estimate of the impact rate on Mars from statistics of very-high-frequency marsquakes.** NATURE ASTRONOMY 8:doi.org/10.1038/s41550-024-02301-z (available as a free pdf)

Authors' abstract: *The number density of impact craters on a planetary surface is used to determine its age, which requires a model for the production rate of craters of different sizes.*

On Mars, however, estimates of the production rate of small craters (<60 metres) from orbital imagery and from extrapolation of lunar impact data do not match.

Here we provide a new independent estimate of the impact rate by analysing the seismic events recorded by the seismometer onboard NASA's InSight lander. Some previously confirmed seismically detected impacts are part of a larger class of marsquakes (very high frequency, VF).

Although a non-impact origin cannot be definitively excluded for each VF event, we show that the VF class as a whole is plausibly caused by meteorite impacts. We use an empirical scaling relationship to convert between seismic moment and crater diameter.

Applying area and time corrections to derive a global impact rate, we find that 280 to 360 craters >8 metres diameter are formed globally per year, consistent with previously published chronology model rates and above the rates derived from freshly imaged craters.

Our work shows that seismology is an effective tool for determining meteoroid impact rates and complements other methods such as orbital imaging.

Murray, J., and O. Jagoutz (2024) **Olivine alteration and the loss of Mars' early atmospheric carbon.** SCIENCE ADVANCES 10:doi.org/10.1126/sciadv.adm8443 (available as a free pdf)

Authors' abstract: *The early Martian atmosphere had 0.25 to 4 bar of CO_2 but thinned rapidly around 3.5 billion years ago. The fate of that carbon remains poorly constrained.*

The hydrothermal alteration of ultramafic rocks, rich in Fe(II) and Mg, forms both abiotic methane, serpentine, and high-surface-area smectite clays.

Given the abundance of ultramafic rocks and smectite in the Martian upper crust and the growing evidence of organic carbon in Martian sedimentary rocks, we quantify the effects of ultramafic alteration on the carbon cycle of early Mars.

We calculate the capacity of Noachian-age clays to store organic carbon. Up to 1.7 bar of CO_2 can plausibly be adsorbed on clay surfaces.

Coupling abiotic methanogenesis with best estimates of Mars' delta ^{13}C history predicts a reservoir of 0.6 to 1.3 bar of CO_2 equivalent. Such a reservoir could be used as an energy source for long-term missions.

Geological observations of Mars indicate a dense early atmosphere ranging from 0.25 to 4 bar of CO_2. However, Mars' current surface reservoir only amounts to approximately 0.054 bar of CO_2, suggesting a substantial loss of CO_2, either to space or the lithosphere.

This decline of CO_2 likely occurred between the late Noachian and late Hesperian period, when sedimentary deposits reflect a transition from a warm and wet to a cold and dry climate.

Tomkins, A.G., et al (2024) **Evidence suggesting that Earth had a ring in the Ordovician.** EARTH AND PLANETARY SCIENCE LETTERS 646:doi.org/10.1016/j.epsl.2024.11899 (available as a free pdf)

Authors' abstract: *All large planets in our Solar System have rings, and it has been suggested that Mars may have had a ring in the past. This raises the question of whether Earth also had a ring in the past.*

Here, we examine the paleolatitudes of 21 asteroid impact craters from an anomalous ~40 megayear period of enhanced meteor impact cratering known as the Ordovician impact spike, and find that all craters fall in an equatorial band at 30°, despite ~70% of exposed, potentially crater-preserving crust lying outside this band.

The beginning of this period is marked by a large increase in L chondrite material accumulated in sedimentary rocks at 465.76 ± 0.30 megayears ago, which, together with the impact spike, has long been suggested to result from break-up of the L chondrite parent body in the asteroid belt.

Our binomial probability calculation indicates that it is highly unlikely that the observed crater distribution was produced by bolides on orbits directly from the asteroid belt.

We therefore propose that instead, a large fragment of the L chondrite parent body broke up due to tidal forces during a near-miss encounter with the Earth at ~466 Ma.

Given the longevity of the impact spike and sediment-hosted L chondrite debris accumulation, we suggest that a debris ring formed after this break up event, from which material de-orbited to produce the observed crater distribution. We further speculate that shading of Earth by this ring may have triggered cooling into the Hirnantian global icehouse period.

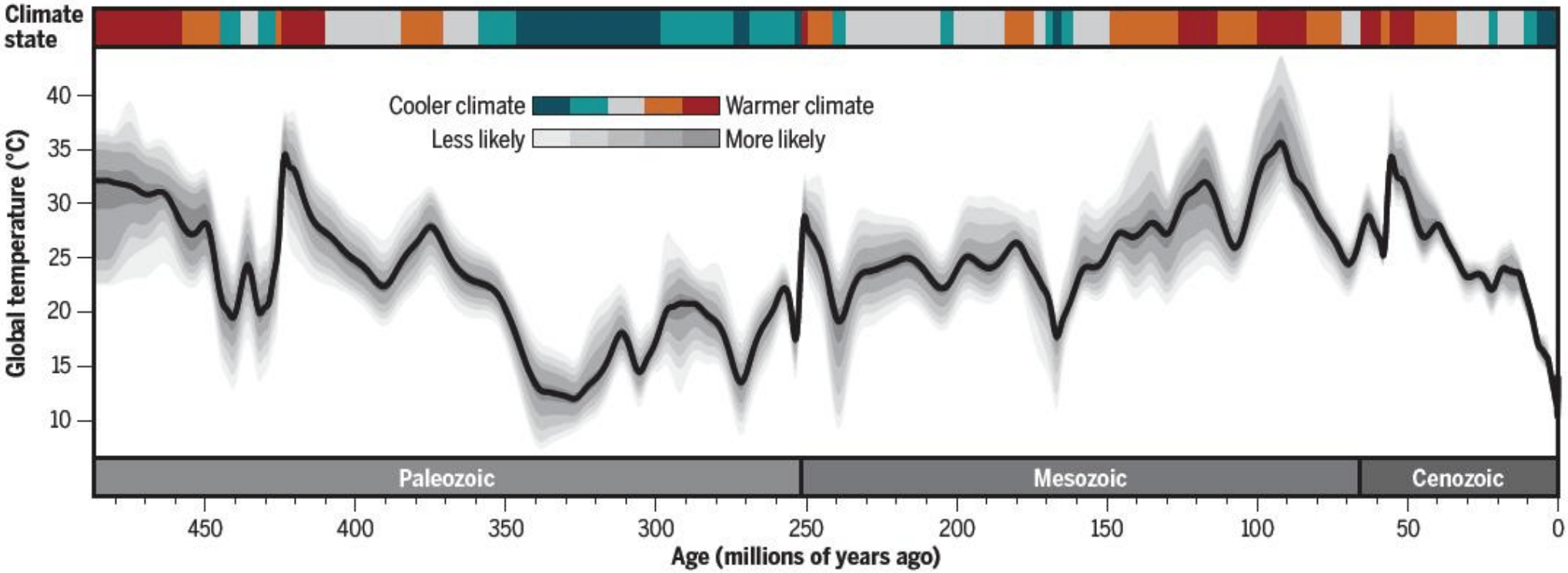
Judd, E.J., et al (2024) **A 485-million-year history of Earth's surface temperature.** SCIENCE 385:doi.org/10.1126/science.adk3705 (available as a free pdf)

Authors' abstract: *A long-term record of global mean surface temperature (GMST) provides critical insight into the dynamical limits of Earth's climate and the complex feedbacks between temperature and the broader Earth system.*

Here, we present PhanDA, a reconstruction of GMST over the past 485 million years, generated by statistically integrating proxy data with climate model simulations. PhanDA exhibits a large range of GMST, spanning 11˚ to 36˚C.

Partitioning the reconstruction into climate states indicates that more time was spent in warmer rather than colder climates and reveals consistent latitudinal temperature gradients within each state.

There is a strong correlation between atmospheric carbon dioxide (CO_2) concentrations and GMST, identifying CO_2 as the dominant control on variations in Phanerozoic global climate and suggesting an apparent Earth system sensitivity of ~8˚C.



[Chart is from this paper. Climate change advocates will not publicize the fact that Earth is in a long-term cooling trend.]

Satellites.

Carrer, L., et al (2024) **Radar evidence of an accessible cave conduit on the Moon below the Mare Tranquillitatis pit.** NATURE ASTRONOMY 8:doi.org/10.1038/s41550-024-02302-y

Authors' abstract: *Here we analyse radar images of the Mare Tranquillitatis pit (MTP), an elliptical skylight with vertical or overhanging walls and a sloping pit floor that seems to extend further underground.*

The images were obtained by the Mini-RF instrument onboard the Lunar Reconnaissance Orbiter in 2010. We find that a portion of the radar reflections originating from the MTP can be attributed to a subsurface cave conduit tens of metres long, suggesting that the MTP leads to an accessible cave conduit beneath the Moon's surface.

This discovery suggests that the MTP is a promising site for a lunar base, as it offers shelter from the harsh surface environment and could support long-term human exploration of the Moon.

de la Fuente Marcos, C., and R. de la Fuente Marcos (2024) **A two-month mini-moon: 2024 PT5 captured by Earth from September to November.** RESEARCH NOTES OF THE AMERICAN ASTRONOMICAL SOCIETY 8:doi.org/10.3847/2515-5172/ad781f

Authors' abstract: *Near-Earth objects (NEOs) that follow horseshoe paths, and approach our planet at close range and low relative velocity, may undergo mini-moon events in which their geocentric energy becomes negative for hours, days or months, but without completing one revolution around Earth while bound.*

An example of NEO experiencing such a temporarily captured flyby is 2022 NX1, which was a short-lived mini-moon in 1981 and 2022. Here, we show that the recently discovered small body 2024 PT5 follows a horseshoe path and it will become a mini-moon in 2024, from September 29 until November 25.

Alien Life.

Vilovic, I., et al (2024) **Observation of significant photosynthesis in garden cress and cyanobacteria under simulated illumination from a K dwarf star.** INTERNATIONAL JOURNAL OF ASTROBIOLOGY 23:doi.org/10.1017/S1473550424000132

Authors' abstract: *Stars with about 45 to 80% the mass of the Sun, so-called K dwarf stars, have previously been proposed as optimal host stars in the search for habitable extrasolar worlds.*

These stars are abundant, have stable luminosities over billions of years longer than Sun-like stars, and offer favourable space environmental conditions. So far, the theoretical and experimental focus on exoplanet habitability has been on even less massive, though potentially less hospitable red dwarf stars.

Here we present the first experimental data on the responses of photosynthetic organisms to a simulated K dwarf spectrum. We find that garden cress Lepidium sativum under K-dwarf radiation exhibits comparable growth and photosynthetic efficiency as under Solar illumination on Earth.

The cyanobacterium Chroococcidiopsis sp. CCMEE 029 exhibits significantly higher photosynthetic efficiency and culture growth under K dwarf radiation compared to Solar conditions.

Our findings of the affirmative responses of these two photosynthetic organisms to K dwarf radiation suggest that exoplanets in the habitable zones around such stars deserve high priority in the search for extrasolar life.

Origin Of Life.

Sasaki, K., et al (2024) **Ultrahigh-resolution imaging of biogenic phosphorus and molybdenum in Palaeoproterozoic Gunflint microfossils.** SCIENTIFIC REPORTS 14:doi.org/10.1038/s41598-024-72191-8 (available as a free pdf)

[The oldest positively confirmed and generally agreed fossils are from the Gunflint Formation of Ontario.]

Authors' abstract: *Phosphorus and molybdenum play important roles in the formation of microbial cell structures and specific enzymes crucial for metabolic processes. Nevertheless, questions remain about the preservation of these elements within ancient microfossils.*

Here, we present shape-accurate ion images capturing phosphorus and molybdenum on Palaeoproterozoic filamentous microfossils by pioneering a methodology using lateral high-resolution secondary ion mass spectrometry.

Introducing electrically conductive glass for mounting isolated microfossils facilitated clearer observations with increased secondary ion yields.

Phosphorus was detected along the contours of microfossils, providing direct evidence of phospholipid utilization in the cell membrane. Trace amounts of molybdenum were detected within microfossil bodies, suggesting potential remnants of molybdenum-bearing proteins, such as nitrogenase.

These findings align with the hypothesized cyanobacterial origin of filamentous Gunflint microfossils. Our methodology introduces a groundbreaking tool for obtaining crucial insights into the cellular evolution and metabolic pathways of microorganisms, allowing comparisons of their morphological characteristics.

Microfossils discovered within the 1.9 billion-year-old Gunflint formation in Canada, known as "Gunflint microfossils", have been recognized as a standard for Precambrian microfossil research.

Predominantly characterized by filamentous, spheroid, and radial shapes, they also exhibit minor morphologies such as umbrella-like, colonial, and eukaryotic forms.

Variations in the morphologies, elemental distributions, coexisting minerals, and carbon isotopic compositions of these microfossils have been discussed, revealing the ecosystems and environmental conditions present at that time.

The filamentous gunflint microfossil, named Gunflintia, stands out as one of the most distinguished types of microfossils. Its morphology closely resembles that of cyanobacteria, which is supported by similarities in carbon isotopic compositions.

Paleobiology.

Thomas, Z.A., et al (2024) **Evidence for a floristically diverse rainforest on the Falkland archipelago in the remote South Atlantic during the mid- to late Cenozoic.** ANTARCTIC SCIENCE 36:doi.org/10.1017/S0954102024000129 (available as a free pdf)

Authors' abstract: *We report the discovery of an ancient forest bed near Stanley, on the Falkland Islands, the second such ancient deposit identified on the South Atlantic island archipelago that is today marked by the absence of native tree species.*

Fossil pollen, spores and wood fragments preserved in this buried deposit at Tussac House show that the source vegetation was characterized by a floristically diverse rainforest dominated by Nothofagus-Podocarpaceae communities, similar to cool temperate Nothofagus forests/woodlands and Magellanic evergreen Nothofagus rainforests.

The age limit of the deposit is inferred from the stratigraphic distribution of fossil pollen species transported by wind, birds or ocean currents from southern Patagonia, as well as similar vegetation types observed across the broader region.

The deposit is suggested to be between Late Oligocene and Early Miocene, making it slightly older than the previously analysed Neogene West Point Island forest bed (200 km west of Tussac House). The combined evidence adds to our current knowledge of the role of climate change and transoceanic dispersal of plant propagules in shaping high-latitude ecosystems in the Southern Hemisphere during the late Palaeogene and Neogene.

Geology.

Yan, S.C., et al (2024) **Silicate and iron phosphate melt immiscibility promotes REE enrichment.** GEOCHEMICAL PERSPECTIVES LETTERS 32:doi.org/10.7185/geochemlet.2436 (available as a free pdf)

[Rare earth elements are essential for all modern electronics and electric vehicles. Technically they are not rare but they are finely dispersed through most rocks which makes them difficult and uneconomical to extract. There are some deposits which are economical to mine but they are rare, hence the name.]

Authors' abstract: *A surging rare earth element (REE) demand calls for finding new REE resources. Iron oxide-apatite (IOA) deposits have substantial REE potential, but their REE enrichment mechanisms remain uncertain, hindering REE exploration.*

The dominant process of IOA deposit formation is also hotly debated. Here, we use novel layered piston-cylinder experiments to address these questions.

Seventeen magmatic FeP-Si immiscibility experiments, across 800 to 1150 ˚C, and at 0.4 and 0.8 GPa, reproduced many natural textural features of IOA deposits. Magmatic-hydrothermal fluid bubbles and iron oxide-bubble pairs formed as well.

The results strongly support FeP-Si immiscibility as a controlling factor in IOA deposits, although not mutually exclusive with other models.

Light REE partition into FeP liquids, preferentially to heavy REE, explaining the light REE enrichment of IOA deposits. Hence, any FeP rich rock that experienced magmatic Fe-Si immiscibility is expected to be light REE enriched and should be considered as a REE exploration target.

In addition, iron oxide-phosphate (FeP) tephra containing monazite at the ~2 Ma El Laco deposit, REE-rich tailings in ~1.0 Ga deposits in the Adirondacks of New York, and a REE-rich breccia pipe containing ~12 wt. % REO at the ~1.4 Ga Pea Ridge deposit further demonstrate that IOA deposits typically contain substantial REE potential.

Speirs: If you read this far, rush to the Adirondacks and register your REE mining claims. Fortune favours the bold.

Zoology.

Deter, J., et al (2024) **Gigantic breeding colonies of a marine fish in the Mediterranean.** CURRENT BIOLOGY 34:PR852-R853

Authors' abstract: *While breeding colonies are well known in seabirds, they remain exceptional for marine fishes.*

Here, we report on fifteen massive breeding colonies of picarels (Spicara smaris), a small benthic zooplanktivorous fish, observed by chance during video transects in spring 2021 along the East coast of Corsica (French Mediterranean).

In total, these colonies cover more than 134.6 hectares (ha) within a surveyed area of 712.1 ha, a single colony covering from 2.2 to 28 ha between 37 and 50 meters deep.

The seabed, including the lower limit of Posidonia oceanica seagrass meadows, soft bottoms, and the predominant rhodolith beds, has been completely rebuilt in circular jointed nests measuring 55 cm in diameter on average.

With a density of 2.6 nests per m , the estimated number of nests in the colony exceeds 18 million. Each nest is guarded by a male. Females swim in groups above the nests and sometimes lay eggs. A rich macrofauna including threatened species can be observed around the nests, eating eggs or adults.

This finding highlights the exceptional ecological role of this small fish as an ecosystem engineer creating oases of marine life. This warrants further studies and better protection of the area, at least during the breeding season.

van Bijlert, P.A., et al (2024) **Muscle-controlled physics simulations of bird locomotion resolve the grounded running paradox.** SCIENCE ADVANCES 10:doi.org/10.1126/sciadv.ado0936 (available as a free pdf)

Authors' abstract: *Humans and birds use very different running styles. Unlike humans, birds adopt grounded running at intermediate speeds, a running gait where at least one foot always maintains ground contact. Avian grounded running is a paradox: Animals usually minimize locomotor energy expenditure, but birds prefer grounded running despite incurring higher energy costs.*

Using predictive gait simulations of the emu (Dromaius novaehollandiae), we resolve this paradox by demonstrating that grounded running represents an optimal gait for birds, from both energetics and muscle excitations perspectives.

Our virtual experiments decoupled effects of posture and tendon elasticity, biomechanically relevant anatomical features that cannot be isolated in real birds.

The avian body plan prevents (near) vertical leg postures, making the running style used by humans impossible. Under this anatomical constraint, grounded running is optimal if the muscles produce the highest forces in crouched postures, as is true in most birds.

Shared anatomical features suggest that, as a behavior, avian grounded running first evolved within non-avian dinosaurs.

Hyde, M., et al (2024) **Andean bears hunt wild guinea pigs in Colombian paramos.** JOURNAL OF TROPICAL ECOLOGY 40:doi.org/10.1017/S026646742400018X

Authors' abstract: *It is well documented that Andean bears (Tremarctos ornatus) feed extensively on plants and carrion, but their hunting habits remain understudied. Better understanding and documentation of Andean bear feeding ecology can improve conservation efforts for this vulnerable species.*

Here, we report an observation of an Andean bear hunting and capturing a wild guinea pig (Cavia aperea) in Chingaza National Natural Park, in Cundinamarca, Colombia. The sighting occurred in January 2023 by a team of conservationists, and we provided photographic evidence and details of the encounter.

Our observation suggests that Andean bears are capable hunters of small rodents, indicating that hunting may play a more important role in the ecology of Andean bears than previously appreciated and highlighting the need for a better understanding of this feeding behaviour.

Environmental Science.

Rodó, X., et al (2024) **Microbial richness and air chemistry in aerosols above the PBL confirm 2,000-km long-distance transport of potential human pathogens.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 121:doi.org/10.1073/pnas.2404191121

Authors' abstract: *The existence of viable human pathogens in bioaerosols which can cause infection or affect human health has been the subject of little research.*

In this study, data provided by 10 tropospheric aircraft surveys over Japan in 2014 confirm the existence of a vast diversity of microbial species up to 3,000 metres height, which can be dispersed above the planetary boundary layer over distances of up to 2,000 km, thanks to strong winds from an area covered with massive cereal croplands in Northeast (NE) Asia.

Microbes attached to aerosols reveal the presence of diverse bacterial and fungal taxa, including potential human pathogens, originating from sewage, pesticides, or fertilizers. Over 266 different fungal and 305 bacterial genera appeared in the 10 aircraft transects.

Actinobacteria, Bacillota, Proteobacteria, and Bacteroidetes phyla dominated the bacteria composition and, for fungi, Ascomycota prevailed over Basidiomycota.

Diversity estimates were similar at heights and surface when entrainment of air from high altitudes occurred. Natural antimicrobial-resistant bacteria (ARB) cultured from air samples were found indicating long-distance spread of ARB and microbial viability.

This would represent a novel way to disperse both viable human pathogens and resistance genes among distant geographical regions.

Jury, S., et al (2024) **Effects of feeding horseshoe crabs (*Limulus polyphemus*) on their recovery after being bled.** BIOLOGICAL BULLETIN 245:doi.org/10.1086/731783

Authors' abstract: *Bleeding of horseshoe crabs (Limulus polyphemus) for the biomedical industry can have both sublethal and lethal impacts.*

Bleeding induces a significant drop in the concentration of hemolymph hemocyanin, as well as decreased levels of activity. Furthermore, horseshoe crabs with low hemocyanin prior to being bled have been found to be more likely to die after the procedure.

The goal of this project was to determine whether feeding horseshoe crabs after bleeding them could enhance the recovery of their hemocyanin levels and, in doing so, improve their physiological status.

The feeds tested in separate experiments included:
(1) natural forage items, blue mussels (Mytilus edulis) or softshell clams (Mya arenaria);
(2) a formulated diet containing green crabs (Carcinus maenas) and Limulus hemolymph; and
(3) a modified commercially available shrimp (Litopenaeus vannamei) broodstock aquafeed.

Horseshoe crabs (n = 63) were bled and then either fed or not fed, and their hemolymph hemocyanin concentrations were measured before they were bled and for the following 6 to 14 days. An additional 25 horseshoe crabs were treated in the same manner but not bled.

In three experiments, horseshoe crabs that were fed consistently showed significantly higher hemolymph hemocyanin concentrations compared to those that were not fed.

These data suggest that relatively simple modifications of the industrial bleeding procedure, such as feeding horseshoe crabs after bleeding them, may improve their physiological status prior to release.

Human Prehistory.

Blum, F., et al (2024) **Consonant lengthening marks the beginning of words across a diverse sample of languages.** NATURE HUMAN BEHAVIOUR 8:doi.org/10.1038/s41562-024-01988-4 (available as a free pdf)

Authors' abstract: *Speech consists of a continuous stream of acoustic signals, yet humans can segment words and other constituents from each other with astonishing precision. The acoustic properties that support this process are not well understood and remain understudied for the vast majority of the world's languages, in particular regarding their potential variation.*

Here we report cross-linguistic evidence for the lengthening of word-initial consonants across a typologically diverse sample of 51 languages. Using Bayesian multilevel regression, we find that on average, word-initial consonants are about 13 ms longer than word-medial consonants.

The cross-linguistic distribution of the effect indicates that despite individual differences in the phonology of the sampled languages, the lengthening of word-initial consonants is a widespread strategy to mark the onset of words in the continuous acoustic signal of human speech.

Nash, B., et al (2024) **Clovis organizational dynamics at a Late Glacial campsite in the central Great Lakes: Belson site excavations 2020-2021.** PLOS ONE 19:doi.org/10.1371/journal.pone.0302255 (available as a free pdf)

[The Clovis people were nomadic hunter-gatherers widespread across North America from 13,050 to 12,750 years ago. Their projectile points, mostly large spear heads, were distinctive and are easily recognized. They over-hunted the megafauna such as mammoths and mastodons, and gradually became less mobile, splitting up into different cultures which stayed in one area.]

Authors' abstract: *The Belson site is located on an outwash plain draining the Early Algonquin stage of the central Great Lakes (coinciding with the Older Dryas stadial period around 14,000 Cal B.P) southwest across Lower Michigan into the Ohio tributaries.*

By 13,000 Cal B.P the St. Joseph River had incised multiple channels into this plain. On a terrace just north of a now-abandoned channel, a detailed surface

study by Talbot from 2005 to 2018 showed several flake clusters largely of Attica chert, procured about 235 km southwest of Belson.

A study of the surface sample was published by the authors in 2021 and indicated that the points were made with the Clovis technological pattern. Excavations in 2020-21 revealed hundreds of buried flakes and multiple tools in the lower, less-disturbed terrace sediment.

Plotting of this material indicates successive occupations below the ploughed deposit and covering more than 30 square metres. The buried assemblages are similar to the published surface assemblage with the addition of more small scrapers and manufacturing debris.

Several of the buried tools have traces of proteins from a range of mammals, suggesting a broad-spectrum subsistence strategy. The documentation of a succession of little disturbed deposits with precisely recorded micro-debris will allow for testing of models describing settlement choice and developing dynamics of internal site organization.

Initial analysis of recovered data provides support for an 'outcrop centered' model where high-quality chert outcrops serve as central places on the landscape.

Inselmann, L., et al (2024) **Warriors from the south? Arrowheads from the Tollense Valley and Central Europe**. ANTIQUITY 98:doi.org/10.15184/aqy.2024.140 (available as a free pdf)

[This paper was about the oldest known large-scale battle between two human groups, 15,000 years ago. One group were invaders come from away. This was not a quick tribal raid for loot but an all-out war to possess the land.]

Authors' abstract: *Investigations in the Tollense Valley in north-eastern Germany have provided evidence of a large and violent conflict in the thirteenth century BC.*

Typological analysis of arrowheads from the valley (10 flint and 54 bronze specimens) and comparison with type distributions in Central Europe, presented here for the first time, emphasise the supra-regional nature of the conflict.

While the flint arrowheads are typical for the local Nordic Bronze Age, the bronze arrowheads show a mixture of local and non-local forms, adding to the growing evidence for a clash between local groups and at least one incoming group from southern Central Europe.

The Tollense Valley in north-eastern Germany is well known as the site of a large conflict in the thirteenth century BC. Since 2008, diving surveys, excavations and metal-detecting have revealed evidence of the conflict at numerous locations along an almost 3 km stretch of the river Tollense.

About 12,500 bones from a minimum of 150 individuals have been recovered so far, most of them (about 90 individuals) during excavation at the site of Weltzin 20. The predominance of young males in the skeletal assemblage and the repeated evidence of perimortem trauma support a context of conflict and violence.

More than 300 metal finds, many of them dated to Period III of the Nordic Bronze Age (1300 to 1100 BC), have been retrieved from dredged sediments, excavations and from the river.

A Bronze Age valley crossing identified at the southern limit of the find distribution might have been the starting point of the conflict but the scale and cause of the conflict are a matter of an ongoing debate. It is assumed that many more human bones are preserved in the valley, which would represent hundreds of victims.

[Image is from this paper and shows a skull pierced by a bronze arrowhead.]

Liu, Y., et al (2024) **Bronze Age cheese reveals human-Lactobacillus interactions over evolutionary history.** Cell 187:doi.org/10.1016/j.cell.2024.08.008 (available as a free pdf)

Authors' abstract: *Despite the long history of consumption of fermented dairy, little is known about how the fermented microbes were utilized and evolved over human history.*

Here, by retrieving ancient DNA of Bronze Age kefir cheese (3,500 years ago) from the Xiaohe cemetery, we explored past human-microbial interactions.

Although it was previously suggested that kefir was spread from the Northern Caucasus to Europe and other regions, we found an additional spreading route of kefir from Xinjiang to inland East Asia.

Over evolutionary history, the East Asian strains gained multiple gene clusters with defensive roles against environmental stressors, which can be a result of the adaptation of Lactobacillus strains to various environmental niches and human selection.

Overall, our results highlight the role of past human activities in shaping the evolution of human-related microbes, and such insights can, in turn, provide a better understanding of past human behaviors.

Benoit, Julien (2024) **A possible later stone age painting of a dicynodont (Synapsida) from the South African Karoo.** PLOS ONE 19:doi.org/10.1371/journal.pone.0309908 (available as a free pdf)

Authors' abstract: *The Horned Serpent panel at La Belle France (Free State Province, South Africa) was painted by the San at least two hundred years ago. It pictures, among many other elements, a tusked animal with a head that resembles that of a dicynodont, the fossils of which are abundant and conspicuous in the Karoo Basin.*

This picture also seemingly relates to a local San myth about large animals that once roamed southern Africa and are now extinct. This suggests the existence of a San geomyth about dicynodonts.

Here, the La Belle France site has been visited, the existence of the painted tusked animal is confirmed, and the presence of tetrapod fossils in its immediate vicinity is supported.

Altogether, they suggest a case of indigenous palaeontology. The painting is dated between 1821 and 1835, or older, making it at least ten years older than the formal scientific description of the first dicynodont, Dicynodon lacerticeps, in 1845.

The painting of a dicynodont by the San would also suggest that they integrated (at least some) fossils into their belief system. A crucial, yet outstanding question about the history of palaeosciences is that of palaeontological indigenous knowledge in the South African Karoo.

The almost continuous Permo-Jurassic fossil record of the South African Karoo chronicles the rise, diversification, and fall of the Therapsida, as well as the evolutionary origins of mammals, turtles, dinosaurs, and lizards, providing many intermediate species each documented by dozens of specimens.

The abundance of tetrapod fossils in the Karoo and their quality of preservation both make it a konzentrat and konservat lagerstatten. Given the wealth of fossils that the Main Karoo Basin and other Karoo-aged basins have delivered, and the long human occupation of this part of the African continent, the existence of a long-standing indigenous knowledge of fossils is very likely.

Yet, the study of African indigenous palaeontology is still fairly young, and the evidence remains accordingly sparse and debatable, especially given the scarcity of written accounts.

Although patchy, a growing record of geomyths, place names, written accounts, and archaeological evidence supports that many southern African cultures knew and, in some cases, inquired about the fossils around them.

[Images on next page are from this paper.]

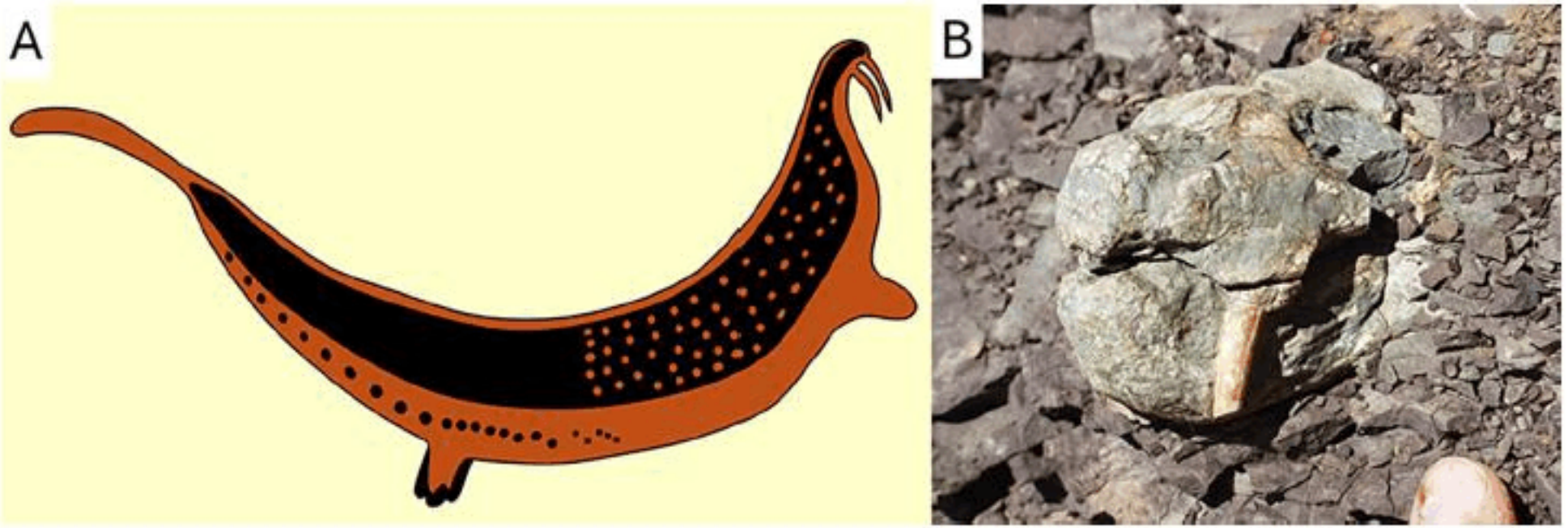


Fig 1. The tusked animal of the Horned Serpent panel compared to the skull of a dicynodont. A, the tusked animal of the Horned Serpent panel redrawn from Stow and Bleek [13]. B, skull of a *Diictodon feliceps* (BP/1/8140, Jasfontein, Victoria West District) photographed by the author in situ at the moment of its discovery, before excavation, and unprepared.

Human Health.

Brailovskaia, J., et al (2024) **Less smartphone and more physical activity for a better work satisfaction, motivation, work-life balance, and mental health: An experimental intervention study.** ACTA PSYCHOLOGICA 250:doi.org/10.1016/j.actpsy.2024.104494 (available as a free pdf)

Authors' abstract: *Employees' work satisfaction and mental health are crucial for an organization's productivity. The current experimental study on employees (N = 278) from different professional sectors and workplaces in Germany investigated how to improve both by changes of daily non-work-related smartphone use time and physical activity time.*

For one week, the smartphone group (N = 73) reduced its daily smartphone use by one hour, the physical activity group (N = 69) increased its daily physical activity by 30 minutes, the combination group (N = 72) followed both interventions, the control group (N = 64) did not change its behavior.

Online surveys assessed work-related and mental health-related variables at three measurement time points (baseline; post-intervention; two-week follow-up).

The reduction of smartphone use time and the combination of both interventions increased work satisfaction, work motivation, work-life balance, and positive mental health significantly; experience of work overload and problematic smartphone use significantly decreased. All interventions decreased depressive symptoms and enhanced sense of control significantly.

Following the present findings, a conscious and controlled reduction of non-work-related smartphone use time and its combination with more physical activity could improve employees' work satisfaction and mental health in the organizational context either as an addition to established training programs or as a separate time- and cost-efficient low threshold program.

Crits-Christoph, A., et al (2024) **Genetic tracing of market wildlife and viruses at the epicenter of the COVID-19 pandemic.** CELL 187:doi.org/10.1016/j.cell.2024.08.010 (available as a free pdf)

Authors' abstract: *The start of the COVID-19 pandemic was traced epidemiologically to the Huanan Seafood Wholesale Market. Here, we analyze environmental qPCR and sequencing data collected in the Huanan market in early 2020.*

We demonstrate that market-linked severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) genetic diversity is consistent with market emergence and find increased SARS-CoV-2 positivity near and within a wildlife stall.

We identify wildlife DNA in all SARS-CoV-2-positive samples from this stall, including species such as civets, bamboo rats, and raccoon dogs, previously identified as possible intermediate hosts. We also detect animal viruses that infect raccoon dogs, civets, and bamboo rats.

Combining metagenomic and phylogenetic approaches, we recover genotypes of market animals and compare them with those from farms and other markets. This analysis provides the genetic basis for a shortlist of potential intermediate hosts of SARS-CoV-2 to prioritize for serological and viral sampling.

Technology.

Watson, J., et al (2024) **Negative online news articles are shared more to social media.** SCIENTIFIC REPORTS 14:doi.org/10.1038/s41598-024-71263-z (available as a free pdf)

Authors' abstract: *Prior research demonstrates that news-related social media posts using negative language are re-posted more, rewarding users who produce negative content.*

We investigate whether negative material from external news sites is also introduced to social media through more user posts, offering comparable incentives for journalists to adopt a negative tone.

Data from four US and UK news sites (95,282 articles) and two social media platforms (579,182,075 posts on Facebook and Twitter, now X) show social media users are 1.91 times more likely to share links to negative news articles.

The impact of negativity varies by news site and social media platform and, for political articles, is moderated by topic focus, with users showing a greater inclination to share negative articles referring to opposing political groups.

Additionally, negativity amplifies news dissemination on social media to a greater extent when accounting for the re-sharing of user posts containing article links. These findings suggest a higher prevalence of negatively toned articles on Facebook and Twitter compared to online news sites.

Further, should journalists respond to the incentives created by the heightened sharing of negative articles to social media platforms, this could even increase negative news exposure for those who do not use social media.

Zhou, M., et al (2024) **Larger and more instructable language models become less reliable.** NATURE 633:doi.org/10.1038/s41586-024-07930-y (available as a free pdf)

Authors' abstract: *The prevailing methods to make large language models more powerful and amenable have been based on continuous scaling up (that is, increasing their size, data volume and computational resources) and bespoke shaping up (including post-filtering, fine tuning or use of human feedback). However, larger and more instructable large language models may have become less reliable.*

By studying the relationship between difficulty concordance, task avoidance, and prompting stability of several language model families, here we show that easy instances for human participants are also easy for the models, but scaled-up, shaped-up models do not secure areas of low difficulty in which either the model does not err or human supervision can spot the errors.

We also find that early models often avoid user questions but scaled-up, shaped-up models tend to give an apparently sensible yet wrong answer much more often, including errors on difficult questions that human supervisors frequently overlook.

Moreover, we observe that stability to different natural phrasings of the same question is improved by scaling-up and shaping-up interventions, but pockets of variability persist across difficulty levels.

These findings highlight the need for a fundamental shift in the design and development of general-purpose artificial intelligence, particularly in high-stakes areas for which a predictable distribution of errors is paramount.