

OPUNTIA 563



New Year's Day 2024

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

LEPUS AMERICANUS

photos by Dale Speirs

In OPUNTIA #558, I showed photos of a bobcat dining on a snowshoe hare under the big spruce tree in my front yard. There were plenty more where that came from, as I discovered one December day upon returning home to find a big plump hare nesting under the spruce tree (below and front cover).



Snowshoe hares are ubiquitous in Calgary and have adapted very well to urban life. Below is a hare I saw in November at the entrance to Fish Creek Library, sunning itself with no fear of passing pedestrians.



POSTAL NEW YEARS

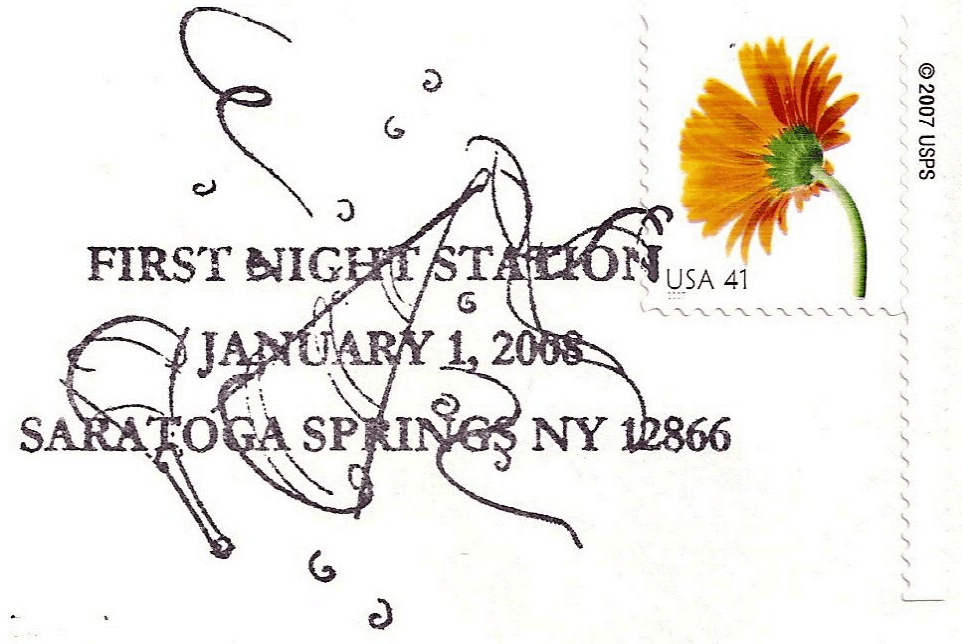
by Dale Speirs

Among other items of postal history and postmarks that I collect are those with a New Year's Day postmark. Sometimes they are favour cancelled but often they are from postal outlets in stores that opened on New Year's Day.



Scotsguard is in southern Saskatchewan and dwindled from a village to a ghost town.

The land dried out and the post office closed in 1983.



The next two pages show a postcard mailed in 1910 from Redcliff, Alberta, on the Trans-Canada Highway in the extreme southeast of the province.



POST CARD



This side for Correspondence

This side for Address

My dear Alice
 Haven't had the
 opportunity to write but
 hope to do so very soon.
 Now is the best time
 standing by the door
 waiting for you to
 appear. I am so glad
 my only use for a
 postcard is for you
 and I am so glad
 to hear from you.

Mrs. Wm Pearson,
 Wolbrook,
 Ont.

TEMPUS FUGIT: PART 9

by Dale Speirs

[Parts 1 to 8 appeared in OPUNTIA #401, 432, 442, 464, 483, 487, 491, and 515.]

Auld Lang Syne.

Normally I go downtown on New Year’s Eve for the fireworks. The weather forecast was for showers on December 31, so instead I spent a quiet evening at home.

MURDER AT MIDNIGHT (2014) by C.S. Challinor was a novel in a series about Scottish barrister Rex Graves. The setting was Hogmanay at Gleneagle Lodge. The alcohol flowed like water, there were arguments, the electricity went off at midnight, and the two hosts Ken and Catriona Fraser were murdered.

All the regular cliches were trotted out and all the guests had their secrets. Not to forget the buried treasure, left over from Jacobite days and believed buried somewhere in yon shady glen.

Graves and the police had more than the usual enquiries, since the Internet was used by culprits to order in narcotic drugs. Assorted alarums came and went, along with a third murder. The killer was not of the clan Fraser but hoped to inherit, by a roundabout method, the castle and the rights to the gold. Twas a night to remember.

Browsing through the Old Time Radio Researchers archive, I came across a brief 3m45s aircheck called “Don Lee New Year Party”, aired on 1929-12-31. The Great Depression was soon to get underway, triggered by the Panic of 1929. Few saw what was coming and most were optimistic that the economy was just going through a blip.

The Don Lee radio network was a pioneer on the American west coast. This was in the earliest days of mass broadcasting, about where personal computers were in the early 1980s. Available as a free download from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary.

The broadcast began with a nightclub orchestra tootling through a brisk number. A chanteuse warbled “*Will my sorrow be with me tomorrow?*”. The music faded, and chimes counted out the last few seconds of 1929. The master of

ceremonies called out “*Happy New Year!*”. The audience cheered and began singing “Auld Lang Syne”. And that was all. Little did they know what the future held.

Jumping ahead to New Year’s Day 1946, another download from the OTRR was the Red Skelton show that evening. He was a good comedian on radio but being a pantomimist, his glory days were yet to come with television.

Nonetheless his radio shows are worth listening to. He was good at ad-libs and if a line was muffed or a joke fell flat, he could quickly recover. The New Year’s Day show was titled “Bells And Resolutions”.

The episode began with cross-talk between Skelton and his announcer Rod O’Connor about the joy of the war having ended and the housing shortage having started. The show’s chanteuse Anita Ellis then sang a forgettable ballad.

Next up, Skeleton did a chapter from his Scrapbook of Satire. He played Deadeye, a Montana cowboy, who rode into town for the New Year’s celebration.

There was a running joke in the saloon where the piano player only knew one song. No matter what song Deadeye requested, it was always the same one. He didn’t notice.

Someone offered Deadeye \$1,000 to go up to the mountaintop and ring a bell to bring in the new year. He subcontracted the job to a Texas cowboy for \$10. Various gags followed incoherently.

An orchestra then played “Camptown Races” at full speed, mostly on strings. Doo dah. From there, to a skit with one of Skelton’s stock characters, Junior, a mean widdle kid always messing up things and annoying his grandmother. The theme was New Year resolutions. One of Junior’s resolutions was to keep the fire department very busy.

Time Travel Is The Simplest Thing.

LIGHTS OUT aired from 1934 to 1947, and was an anthology radio series specializing in fantasy, weird fiction, and horror. The episode at hand was written by Arch Oboler under the title “Neanderthal” as he himself said in his intro, and originally aired on 1942-11-03.

In authorized syndication it was titled “Across The Gap” by another announcer despite Oboler following seconds later with his title. A group of tourists motoring through the French Alps in July had their car go off a cliff.

Instead of dying, they regained consciousness in winter 50,000 years in the past. To no listener’s surprise, Oboler having given away the plot in the title, a big hairy man shambled past the tourists, none other than the aforesaid Neanderthal.

Just hallucinations, the group agreed. One of them tried to talk to the Neanderthal. “*I was in west Africa for two years; I know how to deal with savages.*” were his last words.

Many alarums and much discussion among the group, most of whom who had broken bones and couldn’t move. One of them had a handgun and used it on the caveman. Then what? was the problem, as they were trapped in the past.

And so they stayed, soon to die as they would either freeze to death or starve. One character mused that it would be strange to die 50,000 years before he was born. In the outro, Oboler stated the story was an allegory about the world war (notice the air date). I didn’t quite see the point.

“Assassination In Time” aired on CBS RADIO MYSTERY THEATER on 1975-09-26, written by Ian Morgan. Available as a free download from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary.

Prof. Jennings Andrews called his graduate student Steve Macdonald to come over to his house. Andrews said he had finally succeeded in building a bridge across time. Steve hustled over, as much to see the professor’s daughter Margaret as the old man.

She briefed him about her father’s discovery and her fear of the consequences. In the laboratory, the professor showed Steve how he had sent a humanoid robot back in time. When the robot was retrieved from whatever time period it had been sent to, there was an arrow in its chest.

Notwithstanding the demonstrable hazards, Steve went back in time with Margaret. The couple found themselves in a District of Columbia boarding house circa 1865. As they adjusted themselves, they learned it was April 14, the day Abraham Lincoln was assassinated.

Just once I’d like to see a time travel story where the travelers arrived on October 14, 1066, at Hawaii instead of Hastings. Or say, on December 7, 1941, at Eckville, Alberta, the village where I was born and where absolutely nothing has ever happened.

But I digress. Steve and Margaret were at the boarding house where the plot was hatched. They discussed how to save Lincoln and decided to visit the White House and warn him. They were no more successful than they would be today.

Taking a different tack, they went to the Ford Theater. No one would listen about the threat. Just as they tried to stop John Wilkes Booth before he entered the theater, they were snapped back to their own time. Their timeline was unchanged and lucky for them.

From the 2023 October issue of MYSTERY MAGAZINE was “The Giant Rat Of Sumatra” by Eric Cline. Available from mysterymagazine.ca or, as I bought it, Amazon print-on-demand.

The initial case brought to Holmes was a flood of diamonds on the London market depressing the price. Holmes located the source, a group of mysterious men and women who were buying up commonplace animals such as Galapagos tortoises, passenger pigeons, and Tasmanian tigers.

They were foreigners but not of those times. They were selling uncut diamonds, gold, and silver to raise cash for their mysterious purposes.

Never explicitly stated by Holmes, never understood by Watson who was written as a Nigel Bruce, but easily surmised by the reader, was that the group were time travelers. The animals, extinct in our time, were to be preserved in a future timeline.

Television Time Travel.

LA BREA was a television series that aired its first season in 2021-22. The story began with a gigantic sinkhole opening in Los Angeles, centred on the La Brea Tar Pit. At the bottom was a narrow band of light.

Most who fell into the pit were splattered against the bottom but those who hit the light found themselves in Los Angeles as it was 12,000 years ago.

The initial plot arcs were about surviving and the development of back stories for the cast. The series was basically a soap opera. Every so often the tedium of characters agonizing about failed relationships was relieved by giant sloths or mammoths stomping through the set. The SFX were good but rare.

I bought this first season on DVD but will not buy the second season. The series reminded me of all those disaster movies from The Asylum. Wooden acting, lots of idiot behaviour, and angst sprayed about everywhere.

Clichés were trotted out like prize cows at a rodeo. The hero and heroine were estranged from each other, and had two bratty teenagers. There was a government conspiracy to cover up the real story behind the sinkholes, with good and bad agents.

Half the cast were down below in 10,000 BC, and the other half up top in our time. The half down below were trying to get back to our time and those on top were trying to fly aircraft down through the time warp. Those below discovered a primitive village of anglophone survivors from previous time warps elsewhere.

I did a lot of fast-forwarding past the tedious dialogue. If you genuinely like soap opera, then this would be an interesting watch. If, like me, you have low tolerance for wimps who would rather weep than take arms against a sea of troubles, then don't bother. Normally the SFX would save such a series, but they are too few and far between in this one.

Tricky Time Travel.

One of the laws of nature is that there's always a catch. Consider the short story "Elsewhen" (1946) by Anthony Boucher (reprinted 2022 in the anthology GOLDEN AGE LOCKED ROOM MYSTERIES, edited by Otto Penzler, which is where I read it.). The protagonist was Harrison Partridge, an amateur inventor who had produced a time machine.

The difficulty was that it could only move 42 minutes back in time and no more. Harrison was in love with Faith Preston, who was oblivious of his feelings and was marrying Simon Ash.

Harrison was the support of his sister Agatha. She put the idea into his head about deleting Cousin Stanley from the inheritance of Granduncle Max, in which case the estate would go to brother and sister.

Might as well use the time machine for something practical. Harrison murdered his cousin in a locked room and inadvertently put the blame on Simon, so much the better. He then jumped back in time and established an alibi elsewhere.

Complications ensued, as they so often do with time machines. Harrison tried to smooth them out with repeated time travel but matters only became more twisted. Didn't work. Oh what a tangled web we weave.

ACTION ADVENTURE ON THE AIR: PART 12

by Dale Speirs

[Parts 1 to 11 appeared in OPUNTIA's #426, 447, 476, 487, 494, 502, 518, 526, 531, 537, and 546.]

The old-time radio series mentioned below are available as free downloads from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

Frankie Does Radio.

ROCKY FORTUNE aired for the 1953-54 season. The scripts were untitled, as a result of which many episodes circulate under multiple titles. Frank Sinatra played the hero Rocky Fortune, born Rocko Fortunato, as was specifically mentioned in the second episode. The character was an odd-job man, sent out by his employment agency to a different and strange job each week.

Sinatra's career had declined because the bobby-soxers were gone but his movie and nightclub career was only just beginning. He hit it big in the movies shortly after this series was transcribed and moved on to better things.

"Murder On The Aisle" also circulates as "Drama Critic's Bodyguard". The script was written by Ernest Kinoy and aired on 1953-12-24. Rocky Fortune was hired to babysit Burt Whittermore, an alcoholic drama critic. He kept falling asleep at plays, not from boredom but from booze.

Walter Partridge was the editor. He explained Fortune's job was to sit behind Whittermore and keep him awake. Any sign of drooping was to be dealt with by a stiff jab to the back of his neck.

Before they even left the office, a contretemps occurred when playwright Simpson Maloney barged in uttering threats because of Whittermore's nasty reviews. He swung a heavy cane but missed and knocked Fortune to the ground, then stormed out.

All in a day's work, said Whittermore. His secretary complained the critic hadn't been answering his mail, so Fortune took a batch and put them in his jacket pocket.

The two men departed for a Broadway play. Fortune was distracted by a beautiful young actress Valerie Carter emoting her lines badly but showing off her other lines nicely. After the intermission, a woman tripped over Fortune as he and Whittermore were seated. She apologized and left.

A moment later, Fortune noticed Whittermore asleep. This time it was permanent owing to the knife in his back. The body slumped out of the seat when Fortune poked him in the neck. Fortune quietly walked out into the lobby.

The theatre was dark and the audience was attentive to the play, but even so someone should have noticed. Perhaps they just assumed Whittermore had passed out. A critic has many enemies but there was one in the theatre who really resented bad reviews.

"Whittermore is stiff in the aisle", Fortune told the play's producer Flanagan out in the lobby. *"Again?"*, said the man, who knew the deceased well. Flanagan didn't want to disrupt the play but Fortune insisted on calling the police. When he turned toward a telephone, Flanagan slugged him from behind and rendered him unconscious.

Fortune woke up in a broom closet, and upon exiting found Sgt Finger. There were a plethora of suspects. Fortune remembered the woman but no one else had seen her. Carter invited Fortune to her dressing room, where she told him she wanted one of those letters back. She had sent threats in the letter.

The secretary had told her Fortune had the letters, which explained that plot point. He refused to give it to her. Partridge arrived at the theatre but was no help. With his back to the wall, Fortune opened the letter and read it out loud to Finger.

Carter had written she was breaking off her affair with Whittermore because she was in love with another man. Angrily Partridge grabbed the letter and ran. The chase went across the stage and up onto the catwalk. The results were predictable and Partridge was taken away.

Afterwards, Fortune consoled Carter but then identified her as the woman who killed Whittermore. She pulled out a gun. Instead of immediately shooting him, she explained away all the loose threads. This allowed an implausible last-minute save.

"Companion To A Chimp" was written by George Lefferts and aired on 1953-12-15. Rocky Fortune's job in this episode was obvious from the title.

Marty Bunton was a talent agent who hired Fortune to look after Senator G. Godfrey Jiggs, a chimpanzee in demand by television studios. One wonders why a professional animal trainer wasn't in charge. Especially so since Bunton said Godfrey was valued at \$500,000.

Fortune's job was to transport Godfrey to the studio, then bring him back to Minnie Lane's apartment in the evening. On taking Godfrey to her apartment, he was met by a gungel Harry and his moll Lily. Fortune was rendered unconscious by Harry.

Fortune woke up in the presence of Sgt Finger and Lane. A ransom note demanded \$5,000. Bunton tried to blame Fortune and fired him. Later that evening, Fortune went to Bunton's apartment and demanded a half-day's pay.

The agent went to get the cash. Fortune followed him inside and discovered Godfrey stashed in a back room. Bunton said the chimpnapping was a publicity stunt for the television show and offered \$100 for Fortune's silence.

Harry and Lily were out-of-work actors who did the snatch for \$100. (In 1953, \$100 was very good money, say \$1,000 in today's depreciated currency.) Nonetheless Fortune was slugged again by Harry.

When he woke up, Finger was there. So was Bunton, lying on the floor with a knife in him. Fortune was made the prime suspect, and thus endured many alarums and excursions as he collected the standard plot coupons.

Harry telephoned Lane and said the ransom was now \$15,000. He was serious, since he might as well hang for a sheep instead of a lamb. More contretemps followed. Harry and Godfrey were eventually rounded up. Fortune did have trouble getting the latter down from the streetlight. All in a day's work.

Carlton E. Morse.

One of radio's most prolific writers was Carlton E. Morse, who wrote soap operas and action-adventure series. Insofar as the latter are concerned, he had a series that was basically continuous.

He changed titles and character names if the series changed networks but maintaining the same sort of plots. The action-adventure stories were basically soap operas with gunfire.

I LOVE A MYSTERY aired from 1939 to 1944, then was repeated in 1949-50 with the same scripts but new casts. ADVENTURES BY MORSE aired on radio during the 1944-45 season. I LOVE ADVENTURE aired in 1948. Morse's main activity was the soap opera ONE MAN'S FAMILY, which aired from 1932 to 1959.

"The Devil's Sanctuary" aired on 1948-05-09 as the third episode of I LOVE ADVENTURE, announced as International Incident #3. The 21 Old Men of 10 Gramercy Park summoned Major Jack Packard and Sgt Reggie York to London, England. A rather unusual name for a spy agency.

From behind their giant one-way mirror, the 21 men briefed Packard and York. The Old Men congratulated the duo on their last mission and sent them off to the South Pacific.

During the war the American navy had bypassed minor islands held by the Japanese. One of them was now home to a submarine whose crew were freelancing as pirates.

Packard and York were sent to the South Pacific, where they picked up a small cabin cruiser and went hunting. They found the island and landed. They were met by a British ex-pat Dr Spencer Morgan. He and his daughter Emily had disappeared during the war.

Spencer warned them away but the renegade Japanese found them. Their ship was sunk and the two men were ever so politely taken prisoner. The sergeant of the guard told the men to come with them or be shot.

Packard replied "*Lead on, Macduff*". The sergeant missed the joke and indignantly said "*Name Haramoto, not Macduff*". (And yes, the actual Shakespearian was "*Lay on, Macduff*", but the variant phrase dates back to the 1800s.)

The two men were taken into a submarine pen and held captive. Not an onerous prison, since they wandered about freely. Emily briefed them and introduced other scientists who had been forced to work on atomic weapons.

The leaders were Nazis, one of whom who made a speech. Because they knew their island had been discovered by the 21 Old Men, the Nazis were moving their base elsewhere via submarine.

Haramoto revealed himself as an American spy. His plan was a mutiny. Guards were slugged unconscious, shots were fired, the submarine crash dived, and all ended well. The submarine surfaced and set sail for Hong Kong. Packard made a date with Emily, and the rest was to be surmised.

"But Grandma, What Big Teeth You Have" aired on 1948-06-06. Jack Packard, Doc Long, and Reggie York had broken with the 21 Old Men of 10 Gramercy Park in England. They were now in Los Angeles, working under the name of the A1 Detective Agency..

Reggie explained that Jack had become too well known to enemy spy agencies, who could easily spot him on a case. So he took his cohort with him to Hollywood, California.

This episode opened with Packard and his secretary Mary Kay Jones sweltering in the heat, awaiting Doc and Reggie to report on a case. Instead, Reggie came in with a 11-year-old boy Bud Crawford whom he had caught purse snatching.

The boy lived with his grandmother, who gave him injections to help him sleep. He had bad dreams, skipped school, and spent his days on the street. Jack and Reggie went to see Grandma, leaving Bud at the office.

She was feisty but the two worked on her. They found the narcotics she had been injecting into Bud. Her method was to hypnotize him and send him out to steal.

They believed she had murdered a police officer. Homicide was called in to dig up the basement and Mary Kay arranged for Bud to live with her grandparents in the country. Incredibly the missing police officer had survived through some weird circumstances. Grandma, however, was going to do time for her remaining years.

Bogie And Baby.

BOLD VENTURE was a syndicated old-time radio series that aired during the 1951-52 season and is available as free mp3s from www.otrr.org/OTRRLibrary. It was a star vehicle for Humphrey Bogart and his wife Lauren Bacall, with all episodes written by Morton Fine and David Friedkin. The series was transcribed and then marketed to independent radio stations.

The radio series was two steps removed from Ernest Hemingway's novel TO HAVE AND HAVE NOT via the 1944 movie version starring Bogart and Bacall. The radio series was vaguely similar to the book and somewhat similar to the movie, although it actually owed as much to CASABLANCA.

The setting was Havana, Cuba, long before the Communist takeover. Slate Shannon (played by Bogart) owned a boat called Bold Venture and did odd jobs with it to earn his living. His other business was a cheap hotel called Shannon's Place. His sort-of girlfriend was Sailor Duval (Bacall).

A calypso singer King Moses interpolated songs every so often. The dialogue was spoken more harshly in early episodes than it would be later in the series after the actors found their way. The plots were basic and often owed something to Hemingway.

"The One That Got Away" aired on 1952-02-18. Matt Jeffrey chartered the Bold Venture for fishing but died on board from poisoning. The Havana police naturally accused Slate Shannon and Sailor Duval. Just as naturally they had to investigate to clear their names.

A clever trick got them the name of an ex-girlfriend Amy Webb and her current millionaire boyfriend Rico Sebastian. Next up was a pawnbroker Ray Norton,

who was helpful until he stepped into a back room to get something and was shot dead by an unknown intruder.

From there the usual routine developed of lead and supporting actors running back and forth across Havana. Webb was threatened by a blackmailer named Chico, whom Shannon suspected was the murderer. Chico in turn fingered Webb.

Shots were fired every other scene. Shannon and Duval found the blackmail photos. Sebastian was upset. Webb had killed both men because they were blackmailing her. She made Sebastian the third victim. Accidentally, but irrevocably. Her tears at losing the chance to marry into millions, back when a million was real money, were moving.

"With Friends Like These" aired on 1952-04-07. Slate Shannon was kidnapped by a gunman Yancy, who masquerading as a police detective. Sailor Duval did some sleuthing to rescue him. Supposedly Shannon had killed Rudy Keyjohn in New Orleans.

The deceased wasn't dead but had been kidnapped by someone else, Yancy's girlfriend Linda. She was holding Keyjohn prisoner in Havana. The MacGuffin of the plot was a chest of top-quality Burma jade. Shannon was held at gunpoint but didn't seem too anxious, knowing full well he was the star of the show.

Yancy and Linda wanted the Bold Venture to smuggle the jade into Miami. Much to-ing and fro-ing around Havana and the harbour. The grand finale was a punch-up and shoot-out on board. No prizes for guessing who won the fight and got the jade.

Sharp Practice.

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

Lime was a confidence man constantly traveling throughout Europe. He met a nasty end in the original movie. In the opening narration of the radio

episodes, Welles told the audience that these stories were set before Lime was shot dead fleeing through the sewers of Vienna like a rat.

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

The most distinctive part of the radio series, and what set it apart from other radio shows, was the theme and incidental music, played on a zither by Anton Karas.

Even today it would stand out on a television series. As part of the radio episodes, the music could be considered as important as Welles' rich voice. The existing mp3s are somewhat distorted from old tape recordings but allowing for that they cannot fail to impress.

“The Hard Way” aired 1952-06-27. Harry Lime had developed such a reputation among European police that he was forced to go straight, at least for the time being. He couldn't make a move without nearby lurkers jotting down notes.

Forced to earn an honest living the hard way, Lime and his friend Moe bought a small aircraft. They went into the charter flight business in rural France out of a small farm with a grass airstrip. That only made the police of several nations even more suspicious since they suspected, not without reason, that Lime would use the plane for smuggling.

The action began with Lime flying solo to Paris quite legitimately. En route he was horrified to discover he had a stowaway. Hyacinthe was a teenager who was supposed to be going to a Swiss finishing school. Instead she wanted to go to Paris for a good time. If the Sûreté found Lime with an underage girl he would do hard time for a long time.

Lime turned the plane around and flew back to the farm. He learned that Hyacinthe had telephoned her guardian Uncle Warfield just before takeoff and said she was being held for ransom. Uncle knew she was faking but was quite willing to pay her the money just to be rid of her.

Eventually the three men managed to put her into the finishing school, but not before she stole \$60,000 from Moe at the farm. He was quite upset about her theft because he then had to print a fresh batch of counterfeits from scratch.

Lime said he never learned what she did with the counterfeits and quite frankly didn't want to know. “*I've got enough troubles as it is.*” And so to the zither music.

“Paris Is Not The Same” aired on 1952-07-04. Harry Lime was on a train bound for Geneva, half listening to a fellow passenger Edmund Duval babble about his perfume business. The man showed Lime a photograph of his wife Karen. That made Lime sit up, for she was his ex-girlfriend from wartime England.

Edmund said he would be in Switzerland for three weeks. At the next stop, Lime made his excuses, grabbed his luggage, and took the next train back to Paris. He had seen and memorized the street address on the back of the photo.

Lime called upon Karen and rekindled the romance. She was still unhappy about his disappearance without him ever letting her know what happened. She had to live, so she married Edmund, not a handsome man but a good provider. Lime had to live too, so he got into the diluted perfume business. The Duval's manservant André was taking perfume bottles from the factory, pouring out thirds into two other bottles, then topping up them up with distilled water.

Paris was flooded with American servicemen in the immediate postwar period. André's agents sold them the diluted bottles, and the servicemen sent them home. Their women didn't know the difference and were thrilled to get French perfume. The bottles and labels were authentic since André got them from the factory back gate.

Lime inserted himself into the operation and conned André into a smaller share. When Edmund returned home, he discovered the fraud, although he didn't immediately know who the culprits were. Lime and André scurried about shutting down their operation and erasing their traces.

In the end, Lime was exposed, so he faked his death. He departed Paris in a hurry, not for the first time either. He made a subtle inside joke about how the authorities were looking for a dark-haired man who liked zither music. André became a university lecturer in moral ethics.

South African Adventures.

South African radio show mp3s are generally postwar. Censorship during apartheid rivaled anything the Communists did, so writers and producers had to step carefully.

HIGH ADVENTURE aired in South Africa from 1972 to 1985 on the commercial network Springbok Radio. It should not be confused with an American series of the same name which aired from 1947 to 1954.

“Let Sleeping Mules Fly” was written by Roger Service, airdate unknown. A British government courier Barry Wilson flew into New York City. During the flight he had made friends with a fellow passenger Angelo Corelli. As the flight descended, Corelli said it must be nice to not have to wait for Customs.

Wilson did not have diplomatic immunity, he told Corelli, who then turned pale. That was explained when Customs officers found 2 kilos of pure heroin in Wilson’s carry-on luggage.

He was arrested for smuggling, while Corelli was nowhere in sight. A nightmare followed for Wilson, ultimately putting him in prison. Some improbable adventures followed, such as escaping prison and reconnecting with Corelli, who had used him as a sleeping mule, that is, an unsuspecting smuggler.

Wilson bluffed that he still had the drugs, in an effort to locate Mr Big and thereby exonerate himself. The plan eventually worked because the drug squad had arranged all the alarms in order to use Wilson as the bait. The police arrived in the nick of time and explained everything in excruciating detail.

“Operation Guinea Pig” was written by Terrance Kerwin, airdate unknown. Two old war comrades met by accident and stopped at a pub to reminisce. One wondered whatever happened to old Jonesy, and the other obliged him with the tale.

Jones and five other commandos were sent to France in 1943 to blow up a factory that was developing a secret weapon for the Germans. The raid was a mess from the beginning when one of the commandos died after his parachute failed.

The Germans quickly spotted them. A firefight developed, another commando died, and others were wounded. They did kill all the German patrol. The survivors were suspicious as to why they had been spotted but didn’t have time to stop and speculate.

They pushed on to the factory. Everything continued to go wrong. They tripped an alarm at the factory gate but managed to set the explosives. Jones was the only survivor. Not until after did he learn his squad was a diversionary attack. The real factory was an underground facility elsewhere. A second team of commandos attacked it while Jones’ squad suffered and died for a decoy. Back home after the war, Jonesy was never the same.

He Hunts The Biggest Of All Game.

THE GREEN HORNET aired on old-time radio from 1936 to 1952. The main writer was Fran Striker, who also wrote THE LONE RANGER. While not strictly a spin-off, the Green Hornet, wealthy newspaper publisher Britt Reid, was the grand-nephew of John Reid, the Lone Ranger.

Britt operated in disguise, specializing in the fight against conspiracies and racketeering. He was assisted by his faithful valet Kato, originally Japanese but who became a Filipino after Pearl Harbor.

What they learned in their undercover investigations became front-page scoops for Britt’s newspaper. The series was never as popular as Batman. Revivals on television and the movies in modern times were generally considered boring.

“Research Racket” was an episode which aired on radio on 1939-11-09, written by Fran Stricker and Fielden Farrington. This episode also circulates as “Test Stamps A Swindle” but the former title is clearly announced in the opening credits.

Leonard Testing Laboratories was passing off untested devices and equipment such as stoves and car tires. In the opening sequences, various catastrophes occurred as people used stuff okayed by the LTL. All were purchased as bargains but weren’t.

Britt Reid, newspaper publisher by day and Green Hornet by night, was talking with his idiot news reporter Mike Axford, who had just got a good deal on a new fountain pen. Guaranteed by the LTL, the pen didn’t work.

That triggered an investigation and subsequent alarums and excursions. LTL published a free monthly magazine extolling crap and condemning legitimate quality products. They were an extortion racket, demanding \$5,000 for an approval rating for crap manufacturers, and downgrading legitimate manufacturers who didn't cough up the money.

Mr Leonard was a smooth talker but a vicious operator. His twists and turns were slipperier than a greased pig. The Green Hornet paid a visit to LTL and pulled off a neat double-cross that proved he was smarter than Leonard.

"The Man Who Fooled The World" aired on radio on 1944-03-25, written by Fran Striker. The episode opened with a friendly reminder that income taxes were due. I'm sure a few listeners wondered why the Green Hornet didn't go after the IRS if he really wanted to hunt public enemies.

Be that as it may, Albert Patton was a multinational millionaire, back when a million was real money. He was what we today call an oligarch. He was double-dealing with both Nazis and underground resistance forces in occupied countries.

The Gestapo weren't fools. They set up a deal with Patton to bring back secret plans from the USA. The American counterspy agency had their man on the job. So did Britt Reid, who sent Mike Axford to interview Patton.

Axford didn't get the interview. While cooling his heels in the waiting room, he noticed two deliveries of headache capsules. One was from a drugstore and the other from a well-dressed man who certainly didn't look like a delivery boy.

Axford bummed some of the latter capsules from the secretary. He didn't have a headache but in wartime everyone hoarded everything. He reported back to Reid and in passing gave him a capsule. Always wise to stay on the good side of the boss.

A pause for the next commercial, an earnest lecture by the announcer on conserving car tires. Civilians wouldn't get any more tires until after the war, so they would have to drive less to conserve rubber, not over 35 mph, and share rides.

That evening, Reid and Kato were talking. As Reid fiddled with the capsule, it broke open and revealed a miniaturized fragment of the secret plans. The Green

Hornet and Kato jumped into the Black Beauty and roared off into the night. Tires and gasoline rationing be damned.

The grand finale was a convergence at Patton's place with Nazis, federal agents, police, Axford, and the Green Hornet. Shots were fired, fisticuffs exchanged, things were smashed, all the usual alarums. Patton would no longer fool the world about his business activities.

Miscellaneous Old-Time Radio.

RESULTS INC was a short-lived radio comedy adventure series that aired in 1944. Private investigator Johnny Strange and his secretary Terry Travers yomped about solving cases and mildly amusing listeners. Available as free downloads from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary

"The Last Of The Bloody Gillettes" aired on 1944-12-16 and was written by Leonard Sinclair and Stuart Stirling. Terry was at her hairdressers. Jean Gillette was distracted. (Jean pronounced in the French fashion but his surname with a hard G in the English manner.)

He had received a \$2,500 offer from a magazine to be interviewed about his family ancestors, the Bloody Gillettes. (Call it \$250,000 in today's depreciated currency.) They had feuded with the Colvers, the last member of which had just died.

Jean was the last of his family. He was a short meek little man who wanted the money but not the publicity. Terry convinced Jean to hire Results Inc to have Johnny impersonate him for the article. He would go down south to Black Bayou in the swamps of Louisiana, pose for pictures, and be interviewed.

Jean would go along as his chauffeur so as to be able to coach Johnny on the details. Terry would pose as Johnny qua Jean's wife. Upon arrival they met the writer, who didn't tell them that one of the Colver men was still alive.

A local took them out to the Gillette manor in the swamp. He turned out to be a Colver who wanted to finish the feud. The alarums were predictable and tedious, as was the telegraphed ending. The magazine got a great story and Gillette got his \$2,500, minus a commission for Results Inc.

Revival Radio.

THE ZERO HOUR was an unsuccessful attempt to revive radio drama that aired 1973-74. Rod Serling did the intros and outros much like his television shows, but he didn't produce this series.

“Edwards Tug And Salvage” aired on 1974-07-03 and was written by Keith Walker. A university student Bernard Edwards inherited a tugboat from his grandfather Sam. He knew nothing about the maritime life. Almost immediately Bernard was asked by his uncle to rescue a freighter in the middle of the Gulf of Mexico.

A rival tugboat operator wanted the salvage rights and the race was on. A neighbour boat operator Tom Dunlop had a daughter Alice who took a shine to Bernard. He was a complete landlubber, so Alice and Uncle Rolly took command.

Out on the raging sea, the two tugboats duked it out for the freighter. It all ended happily for Bernard, who got the boat and the girl. The episode was mild comedy with a predictable plot. Worth listening to once.

Print.

Not on the air but I don't want to start another review column so I'll jam this in here. THE BIG BOOK OF SWASHBUCKLING ADVENTURE (2014) was an anthology of 18 stories, edited by Lawrence Ellsworth.

Normally I don't care for such stories but thought I'd give this book a try when I saw it on the library shelves. The Zorro, Robin Hood, and Brigadier Gerard stories were skipped as were many others. Zorro did appear in a radio series. “Sword And Mitre” by Rafael Sabatini was about a scoundrel named de Bleville, who was blackmailed by another scoundrel Marquis de Castleroc. The latter wanted the former's girlfriend.

He threatened to report Bleville to Cardinal Richelieu for killing the cardinal's nephew in a duel. Some twists and turns followed, including a sword fight where Bleville saved the life of Richelieu. All was forgiven.

“The Black Death” by Marion Polk Angellotti was a story that will be read much differently by post-pandemic audiences than before 2019. The story was

set in Italy during the bubonic plague, when the tiny republics and principalities were constantly fighting each other.

A victorious military commander was stymied by a female spy who stopped him from taking his army on a shortcut through infected territory. Instead he was convinced to lead his troops along a different route fraught with alarums and sabotage. He survived and caught up with the spy.

The Spy Who Blithered.

THE HOUSE OF UNSPEAKABLE SECRETS was a BBC comedy-thriller series that aired for eight episodes in 1967, written by Ernest Dudley (not Earnest as per most Internet sources). His real name was Vivian Ernest Coltman-Allen, which explains his pseudonym.

The comedy was mild and very understated. The thriller part was routine spy action-adventure. However the series is worth listening to once on your daily commute to work or long driving on the highway.

“Code Name Joseph” aired on 1967-11-27. The plot began at an opera where two British agents were snooping through a diva's dressing room while she was trilling on-stage. They were hunting for a gadget, the MacGuffin of the plot, and found it in her makeup kit.

They were up against German spies in Hamburg, and the police were none too friendly either. The gadget was apparently a recorded message from an agent code-named Joseph. It may be assumed this was a Cold War spy snooping around East Germany, although the episode didn't state this clearly.

Alarums ensued as they so often do. The funnier part of the humour was in the sound effects. Cars squealed their tires as they turned corners. The screeching noises when they braked suggested the brakes were worn through to the hubs.

The agent with the gadget was a blithering idiot. He headed back to England, taking the train from Hamburg. Various spies and agents came and went. At least one of them departed the train and this world, falling out of a window during a struggle.

A femme fatale with an indeterminate accent romanced the agent on the train. They went to the dining car for a tête-à-tête. He ordered consommé but she was

hauled away by a conductor before the meal arrived. The agents searched and found her almost dead from strangulation in one of the agent's compartment. She gasped the name Joseph, at which point the episode ended.

Episode 2 was "Find The Lady", which aired three days later on 1967-11-30. Subsequent episodes aired at intervals of three or four days until the final episode on December 21. A strange way of doing things, even for the BBC.

The intro of the second episode made it clear that the British spy was Hilare (if I understood the announcer's accent correctly; viddy English wot?). Hilare's cover was an international hairdresser to the stars and rich folk. A good way to pick up interesting gossip.

The femme fatale identified herself as Caress Meadows. After she was revived, she denied knowing anyone named Joseph. The agents escorted her to her compartment. They speculated someone wanted to frame Hilare for murder.

Hilare's destination suddenly changed to Paris, where he was going to compete in an international hairdressing competition. Someone switched his shoes for reasons unknown. Blithering onward, Hilare had a hearty cup of coffee at a café while waiting for a rendezvous with an agent named Eric.

The coffee was heartily drugged. While Hilare was unconscious, the culprit took his shoes, the switched ones. When he awoke, Eric stumbled in, dying from a knife wound. Several scenes later, Hilare continued onward, eventually meeting up with Major Selby, his controller from the Foreign Office.

At this juncture, the boss began talking about Nazi spies, which had me wondering if this series was set in the 1930s or if they were postwar neo-Nazis. Hilare went off to another rendezvous, this time with Meadows.

Episode 3 was titled "The Faceless Ones". The announcer's intro of the story so far mentioned that Joseph's message revealed the hideout of a wartime Nazi. This clarified the previous episodes. Selby was hunting war criminals and fighting a rival spy agency run by Lord Gerald Dulane.

The opening scene was in a tavern where characters came and went in a fog of misunderstandings. Hilare took Caress home to see his mother but she wasn't there. He left Caress and went looking for Mum, got slugged by one of Selby's agents, and was nearly run in by a patrolling constable.

The plot continued like a stage farce. To and fro, punch-ups, and idiotic behaviour. Characters went searching for each other, passing each other in the dark, and stumbling over dead bodies. Basically a padded-out episode.

"The Blackmailer" was the next episode. The aforementioned body was an enemy agent found in Caress's apartment by Hilare and Selby, who were snooping about. She wasn't there but they weren't sure she killed the agent.

A neighbour intruded. Selby accused him and decided the three would carry the body to the nearest police station. They lugged the deceased down the fire escape and into a van.

Hilare went back to the apartment while the other two men disposed of the body. Caress had returned, unaware of the contretemps. She romanced him but the idiot continued to blither.

The doorbell rang. Caress answered and faced two Special Branch agents. She slammed the door on them as they tried to bluff their way in. People fled, the body was shuffled about, the telephone kept ringing, and alarums too many to mention ensued.

Hilare's idiotic behaviour, and it was idiotic, made the listener wonder how he was ever recruited as a spy. He talked loudly when he should have whispered, had the social graces of a nerd, missed the obvious every time, and needed everything explained.

Selby was short-tempered and angry all the time, and one doesn't blame him. Hilare went home to Mum, who was disconcerted at his guilty actions. He blabbed all and asked her advice. Mother always knows best.

The death toll climbed, including Caress. Selby was in her apartment and found hidden movie cameras which showed Hilare in what could be construed as a compromising position. Selby told Hilare the film would be used for blackmail over Caress's murder if he didn't shape up and do as he was told.

"Cold Blood" was the fifth episode. Hilare refused to be blackmailed and stormed out. A tomato surprise was that Caress had faked her death and was working in cahoots with Selby. After Hilare left, she came out of a closet.

More controlled confusion (Selby's words) followed. A plan was hatched whereby Hilare was to infiltrate a fancy-dress party as Marie Antoinette. He objected. The very idea of a hairdresser in women's clothes! He went home to Mum.

The plot threads became complicated, much like a heaping plate of spaghetti. Hilare was beaten up, although he thought it might be a rival hairdresser. Lord Dulane put in his oar every so often.

"Behind The Mask" was the sixth episode, beginning at the costume party. Hilare was to be a double impersonator. One of his regular customers in his Mayfair shop was Lady Dulane. She had planned to go as Marie Antoinette.

Hilare talked Selby into using one of his other agents, Miss Bellamy. She posed as Lady Dulane posing as Antoinette. Her pompadour wig had a tape recorder inside in the hopes of getting useful information from Lord Dulane or at least someone else.

In a different costume Hilare went to the party. He found one of Dulane's agents, code name The Spanish Onion, wearing the same costume. Bellamy suddenly took ill, forcing Hilare to exchange costumes with her in a private room.

All the elements of British dinner theatre farce fell into place. On the dance floor, Hilare had to deal with a drunken masher, The Spanish Onion. He retreated and the Onion stole his pompadour wig, then rushed outside and started to drive off.

The wig had a bomb implanted, which eliminated the Onion from the plot. The explosion was outside, which saved everyone else but certainly gave a big finish for the party.

The obvious question was who the intended target was. Lord Dulane was miffed because the wrong person was killed. Selby was miffed because he thought Bellamy had set up the whole charade to get Hilare killed. She had betrayed him. Hilare carried on blithely.

Selby and Hilare drove off to the hotel where the Onion had been booked. En route, a car tried to run them off the road, then blockade them. Hilare recognized them as Dulane's men.

Which brought us to the seventh episode "The White Cat". Selby and Hilare reached the hotel and searched Onion's room. They found a suitcase full of a fancy dress costume. Nothing seemed to come of it, so they drove off. En route they discovered Bellamy's body in the back seat of their car.

Selby turned about to return the body. Hilare botched everything when he attracted the attention of two constables. He was still wearing his fancy dress. Walk around dressed like Marie Antoinette and see if people don't notice you.

Fortunately Selby successfully dumped the body. They talked their way out of trouble with the police and drove away. Unfortunately when they got back home Selby received a telephone call.

Joseph (remember him?) was in town and possibly in the custody of Dulane. His Lordship had his own problems. The bomb had stirred up the Special Branch who were now investigating him and the Foreign Office.

At the suggestion of a henchman, Dulane agreed the time had come to eliminate Hilare. Lady Dulane would simply have to get a new hairdresser. Selby showed up at the manor house and argued with Lord Dulane about what to do with Hilare. Selby wasn't entirely unsympathetic about disposing of him.

From there everyone went hither and yon chasing MacGuffins and trying trip up each other. There was a white cat in the final moments of the episode. It only got in a few meows before dying after licking some milk set out for Hilare's tea. Poison, of course.

"The Write Off" was the concluding episode. Much back- and forth-ing, with Selby and Dulane trying to take each other. The denouement cleared out some of the characters but did nothing to explain all the goings-on and why everyone was chasing each other.

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

[Theo's quarterly postcard. View side is on the next page.]

whimsyandcolour.com

Winter Calls,
The Cold beckons,
The Sun lies low,
The Shadows long.

Icy Beauty
Fills the Land
With hues of Light
And Darkness.

Breathe Slowly
And Rest.

"Seasonal
Greetings!"

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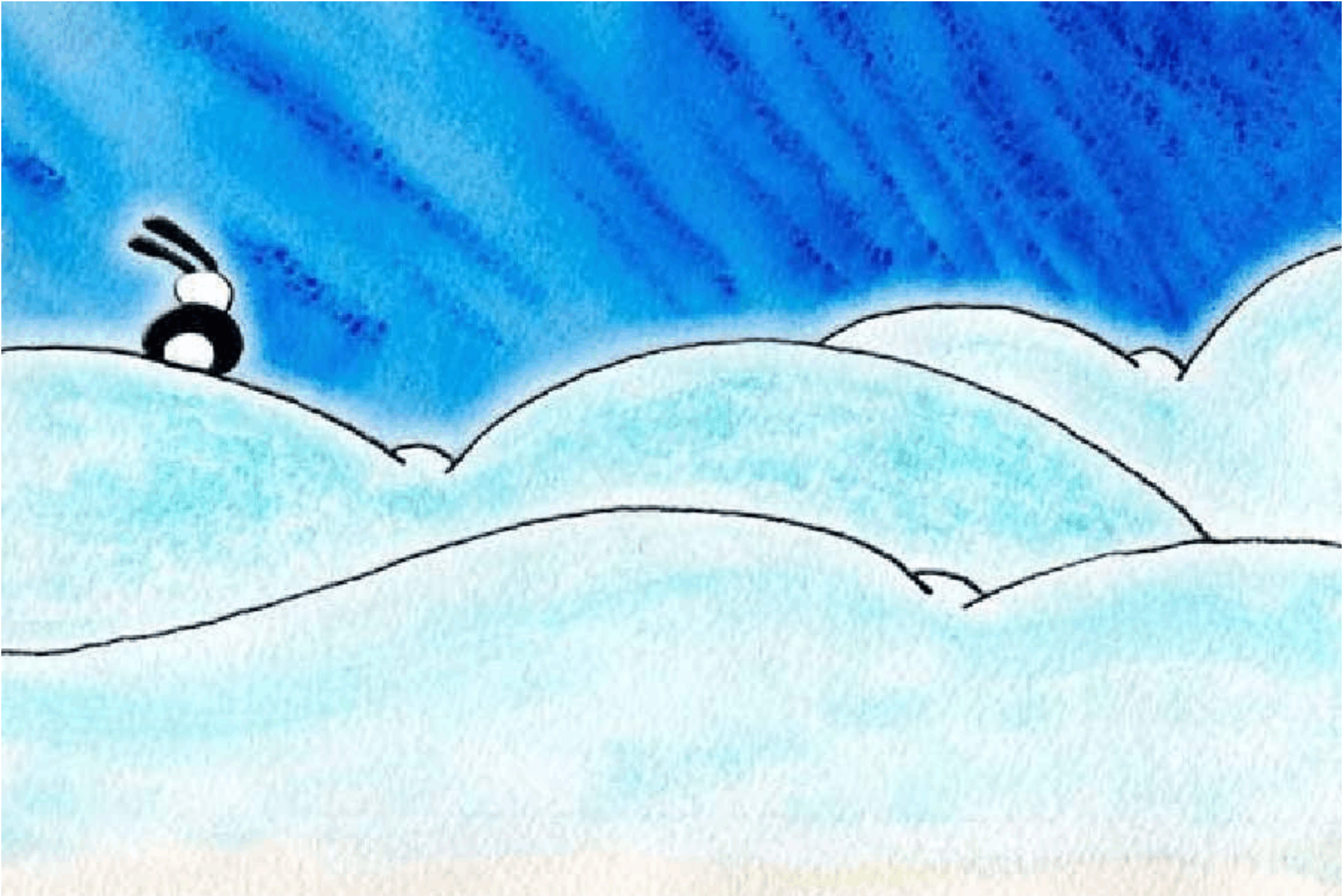
To:

Date - _____

Enjoy the season

wherever you are!

Handwritten signature



FROM: Lloyd Penney
Etobicoke, Ontario

2023-12-18

OPUNTIA #560: [Remembrance Day ceremonies] We've lived for many years in Etobicoke, and it has always seemed difficult to find out what's happening in this part of Toronto.

We have wanted to attend Remembrance Day ceremonies, but some years, we don't know where they are going to be, and other years, we find that the presence of the general public is not wanted. Sounds strange, but we're told there isn't enough room to accommodate the public in any number. We decided to just watch the national ceremonies in Ottawa on TV.

[With one exception, the dozen or so Calgary Remembrance Day ceremonies are outside in large parks with ample room. In deference to elderly veterans of limited mobility, there is an indoor ceremony at the Jubilee Auditorium which is restricted attendance.]

My previous letter: [re: readercons] I might be looking at a fast trip to Ottawa for Cancon, but right now, we do have lots of other plans to go to the annual NASFiC and World Fantasy Convention, both in 2024 in the Buffalo-Niagara area. We also plan to go to Loscon 50 in the Los Angeles area. We just hope the money holds out.

OPUNTIA #561: I don't recall seeing any festivals of light here, but I will say the lights put up by individuals has been spectacular. We will be going out Christmas Eve to see the local lights as we usually do, and there should be some great displays.

[Calgary is a great city for light festivals. Coming up soon, and which I will cover in this zine, is Chinook Blast, running the first three weeks of February. The City Council encourage such festivals as a way to brighten the dreary days of winter when the days are short.]

I have not made the attempt to keep up with the genre Holmes stories have become, but I did like the Ian McKellen movie Mr. Holmes. I thought it was still the newest Holmes movie, released in 2015, but I had forgotten the Robert Downey Holmes movies. From what I saw in the theatres, I honestly didn't like the preview.

[Now that the Doyle copyrights have expired, a flood of pastiches, both print and video, make it difficult to keep up. One also needs a deep purse, although I rely on the Calgary Public Library.]

OPUNTIA #562: Yes, getting close to Christmas. Tomorrow [December 19] is Yvonne's birthday, so we will be going out for breakfast to celebrate. I think the CPKC Holiday train got through the Toronto area, but I am sure trying to see the show meant a rowdy crowd, and it was difficult for two short people like us.

[The crowd at the Calgary train event circulated steadily, moving along the fence. No rowdiness as this was a family event with lots of children and a high police presence in case Gaza protestors wanted to spoil the event. Everyone desiring a close look at the light displays could do so. It just meant shuffling along slowly and being patient. Also the boxcars were high enough up that one could see the lights as if on a stage.]

We've had a busy Christmas pre-season so far. Several Christmas parties to go to, more to come, and a movie prop and wardrobe show that proved lots of fun. We have more events to go, even after Yvonne's birthday tomorrow, and we sure could get used to this, for our Christmases are usually quite quiet. There's a few places to go to for Boxing Day, and pre-New Year's.

[I went to one Christmas party at the beginning of December and when I weighed myself the next morning I had gained a kilo. On Boxing Day I avoid the crowds in the malls and do my annual global backup of my computer files onto a memory stick, which usually takes about four hours.]

SEEN IN THE LITERATURE

Astronomy.

Tsukui, T., et al (2023) **Detecting a disc bending wave in a barred-spiral galaxy at redshift ~ 4.4** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 527:doi.org/10.1093/mnras/stad3588 (available as a free pdf)

Authors’ abstract: *The recent discovery of barred spiral galaxies in the early Universe poses questions of how these structures form and how they influence galaxy evolution in the early Universe.*

In this study, we investigate the morphology and kinematics of the far-infrared (FIR) continuum and [C II] emission in BRI1335-0417 at $z \sim 4.4$ from ALMA observations.

The variations in position angle and ellipticity of the isophotes show the characteristic signature of a barred galaxy. The bar, 3.3 kiloparsecs long in radius and bridging the previously identified two-armed spiral, is evident in both [C II] and FIR images, driving the galaxy’s rapid evolution by channelling gas towards the nucleus.

The bar identified in [C II] and FIR images of the gas-rich disc galaxy (>70 per cent of the total mass within radius $R \sim 2.2$ disc scale lengths) suggests a new perspective of early bar formation in high redshift gas-rich galaxies, a gravitationally unstable gas-rich disc creating a star-forming gaseous bar, rather than a stellar bar emerging from a pre-existing stellar disc.

This may explain the prevalent bar-like structures seen in FIR images of high-redshift submillimeter galaxies.

Bellinger, E.P., et al (2023) **Solar evolution models with a central black hole.** ASTROPHYSICAL JOURNAL 959:doi.org/10.3847/1538-4357/ad04de (available as a free pdf)

Authors’ abstract: *Hawking proposed that the Sun may harbor a primordial black hole (BH) whose accretion supplies some of the solar luminosity. Such an object would have formed within the first 1 second after the Big Bang with*

the mass of a moon or an asteroid. These light BHs are a candidate solution to the dark matter problem, and could grow to become stellar-mass BHs if captured by stars. Here we compute the evolution of stars having such a BH at their center.

We find that such objects can be surprisingly long-lived, with the lightest BHs having no influence over stellar evolution, while more massive ones consume the star over time to produce a range of observable consequences.

Models of the Sun born about a BH whose mass has since grown to approximately 10^{-6} Earth masses are compatible with current observations. In this scenario, the Sun would first dim to half its current luminosity over a span of 100 megayears as the accretion starts to generate enough energy to quench nuclear reactions.

The Sun would then expand into a fully convective star, where it would shine luminously for potentially several gigayears with an enriched surface helium abundance, first as a sub-subgiant star, and later as a red straggler, before becoming a subsolar-mass BH.

We also present results for a range of stellar masses and metallicities. The unique internal structures of stars harboring BHs may make it possible for asteroseismology to discover them, should they exist.

Geology.

Le Mével, H., et al (2023) **The magmatic system under Hunga volcano before and after the 15 January 2022 eruption.** SCIENCE ADVANCES 9:doi.org/10.1126/sciadv.adh3156 (available as a free pdf)

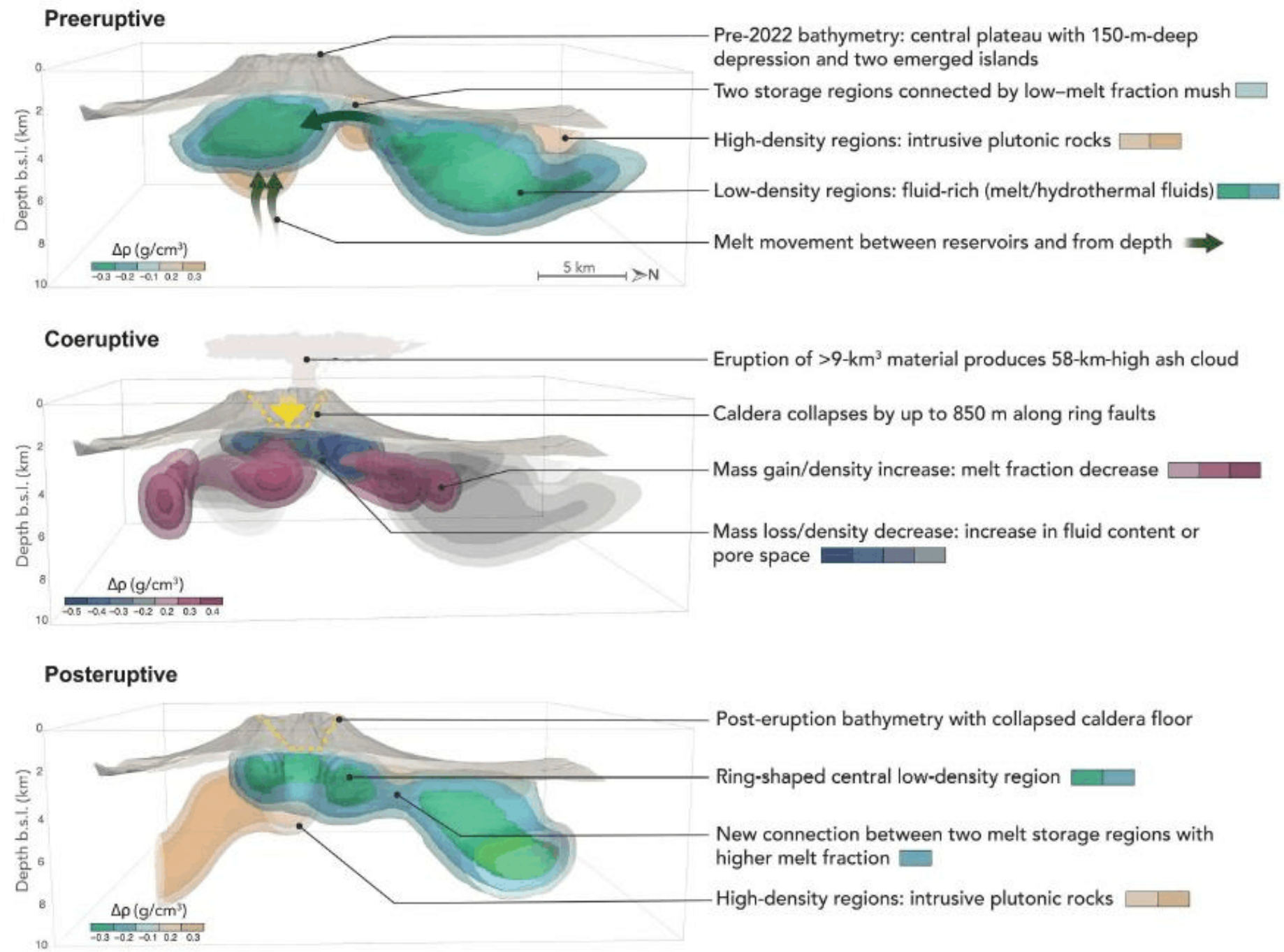
Authors’ abstract: *One of the largest explosive eruptions instrumentally recorded occurred at Hunga volcano on 15 January 2022. The magma plumbing system under this volcano is unexplored because of inherent difficulties caused by its submarine setting.*

We use marine gravity data derived from satellite altimetry combined with multibeam bathymetry to model the architecture and dynamics of the magmatic system before and after the January 2022 eruption.

We provide geophysical evidence for substantial high-melt content magma accumulation in three reservoirs at shallow depths (2 to 10 kilometers) under the volcano. We estimate that less than ~30% of the existing magma was evacuated by the main eruptive phases, enough to trigger caldera collapse.

The eruption and caldera collapse reorganized magma storage, resulting in an increased connectivity between the two spatially distinct reservoirs. Modeling global satellite altimetry-derived gravity data at undersea volcanoes offer a promising reconnaissance tool to probe the subsurface for eruptible magma.

[Images are from this paper.]



Paleobiology.

Meek, D.M., et al (2023) **Increased habitat segregation at the dawn of the Phanerozoic revealed by correspondence analysis of bioturbation.** SCIENTIFIC REPORTS 13:doi.org/10.1038/s41598-023-49716-8 (available as a free pdf)

[The Ediacaran period of 600 to 542 megayears ago was the dawn of multicellular life, followed by the Cambrian when animals evolved into full size and diversity.]

[Benthic animals are those that live on the seabed or lake bottoms. Before the evolution of herbivores during the Ediacaran, life consisted of mats of algae covering the seabed or building up mounds known as stromatolites. When burrowing animals appeared, they disrupted the mats and the layers of the subsurface, known as facies.]

[Today, stromatolites only survive in specialized habitats such as Shark Bay, Australia, where the hypersaline water prevents herbivores from reaching the algae.]

Authors’ abstract: *The Agronomic Revolution of the early Cambrian refers to the most significant re-structuration of the benthic marine ecosystem in life history.*

Using a global compilation of trace-fossil records across the Ediacaran-Cambrian transition, this paper investigates the relationship between the benthos and depositional environments prior to, during, and after the Agronomic Revolution to shed light on habitat segregation via correspondence analysis.

The results of this analysis characterize Ediacaran mobile benthic bilaterians as facies-crossing and opportunistic, with low levels of habitat specialization. In contrast, the Terreneuvian and Cambrian Series 2 reveal progressive habitat segregation, parallel to matground environmental restriction.

This event was conducive to the establishment of distinct endobenthic communities along the marine depositional profile, showing that the increase in styles of animal-substrate interactions was expressed by both alpha and beta ichnodiversity.

Habitat segregation at the dawn of the Phanerozoic may illustrate an early extension of the trophic group amensalism at community scale.

Wood, R., et al (2023) **New Ediacaran biota from the oldest Nama Group, Namibia (Tsaus Mountains), and redefinition of the Nama Assemblage.** GEOLOGICAL MAGAZINE 160:doi.org/10.1017/S0016756823000638 (available as a free pdf)

Authors’ abstract: *The Nama Group, Namibia (about 550.5 to <538 million years ago), preserves one of the most diverse metazoan fossil records of the terminal Ediacaran Period.*

We report numerous features that may be biological in origin from the shallow marine, siliciclastic, lowermost Mara Member (older than ca. 550.5 Ma) from the Tsaus Mountains.

These include forms that potentially represent body fossils, Beltanelliformis and an indeterminate juvenile uniterminal rangeomorph or arboreomorph frond, plug trace fossils, Bergaueria, as well as sedimentary surface textures, which are possibly microbially induced.

These are the oldest documented macrofossils in the Nama Group. They represent taxa that persist from the Avalon or White Sea assemblages prior to the later appearance of new biota, including calcified metazoans, calcified and soft-bodied tubular taxa including all cloudinids, as well as more complex trace fossils.

Smart, M.S., et al (2023) **The expansion of land plants during the Late Devonian contributed to the marine mass extinction.** COMMUNICATIONS EARTH AND ENVIRONMENT 4:doi.org/10.1038/s43247-023-01087-8 (available as a free pdf)

Authors’ abstract: *The evolution and expansion of land plants brought about one of the most dramatic shifts in the history of the Earth system, the birth of modern soils, and likely stimulated massive changes in marine biogeochemistry and climate.*

Multiple marine extinctions characterized by widespread anoxia, including the Late Devonian mass extinction around 372 million years ago, may have been linked to terrestrial release of the nutrient phosphorus driven by newly rooted landscapes.

Here we use recently published Devonian lake records as variable inputs in an Earth system model of the coupled carbon-nitrogen-phosphorus-oxygen-sulfur biogeochemical cycles to evaluate whether recorded changes to phosphorus fluxes could sustain Devonian marine anoxia sufficient to drive mass extinction.

Results show that globally scaled increases in riverine phosphorus export during the Late Devonian mass extinction could have generated widespread marine anoxia, as modeled perturbations in carbon isotope, temperature, oxygen, and carbon dioxide data are generally consistent with the geologic record.

Similar results for large scale volcanism suggest the Late Devonian mass extinction was likely multifaceted with both land plants and volcanism as contributing factors.

[Map shows Earth as it was during the Late Devonian 370 megayears ago.]



Jamison-Todd, S., et al (2023) **The prevalence of invertebrate bioerosion on Mesozoic marine reptile bone from the Jurassic and Cretaceous of the United Kingdom: new data and implications for taphonomy and environment.** GEOLOGICAL MAGAZINE 160:doi.org/10.1017/S0016756823000651 (available as a free pdf)

[Bioerosion is simply critters chewing on bones or etching them with acids to flush out nutrients.]

Authors’ abstract: *Invertebrate bioerosion on fossil bone can contribute to reconstructions of benthic taxonomic assemblages and inform us about oxygenation levels, water depth and exposure time on the seafloor prior to burial. However, these traces are not commonly described in the fossil record.*

To date, there have been only 13 published studies describing a total of 15 instances of invertebrate bioerosion on marine reptile fossil bones from the Mesozoic globally. We surveyed the collections of several UK museums with substantial occurrences of Mesozoic marine reptiles for evidence of invertebrate bioerosion.

Here, we document 153 specimens exhibiting 171 newly recorded instances of invertebrate bioerosion on Jurassic and Cretaceous marine reptile bones. Several major bioeroding taxonomic groups are identified.

Within the geological strata of the United Kingdom, there is a higher prevalence of bioerosion in the Cretaceous relative to the Jurassic, despite greater sampling of specimens from the Jurassic.

Although biotic turnover and food web restructuring might have played a role, potentially pertaining to heightened productivity during the later stages of the Mesozoic Marine Revolution, we consider it more likely that this temporal change corresponds to differences in depositional environment and taphonomic history between the sampled rock units.

In particular, the Cretaceous deposits are characterized by heightened oxygenation levels relative to their Jurassic counterparts, as well as reworking, which would have allowed two phases of bioerosion. A spatiotemporally broader dataset on invertebrate bioerosion on vertebrate bone will be important in further testing this and other hypotheses.

Wang, X., et al (2023) **A new toothless pterosaur from the Early Cretaceous Jehol Biota with comments on the Chaoyangopteridae.** SCIENTIFIC REPORTS 13:doi.org/10.1038/s41598-023-48076-7 (available as a free pdf)

Authors’ abstract: *The Chaoyangopteridae is a clade of azhdarchoid pterosaurs that stands out in China, particularly in the Jehol Biota, as a Cretaceous group of medium-sized and high-crested pterosaurs. Herein, we describe a new species, Meilifeilong youhao gen. et sp. nov., based on two specimens, one tentatively referred to this taxon.*

Pterosaurs comprise an important and enigmatic group of Mesozoic flying reptiles that first evolved active flight among vertebrates, and have filled all aerial environmental niches for almost 160 megayears. Despite being a totally extinct group, they have achieved a wide diversity of forms in a window of time spanning from the Late Triassic to the end of the Cretaceous period.

Notwithstanding being found on every continent, China stands out by furnishing several new specimens that revealed not only different species, but also entire new clades, such as the azhdarchoid Chaoyangopteridae.

This Cretaceous group of medium-sized and high-crested pterosaurs is particularly well known in the Jehol Biota, which includes Chaoyangopterus zhangii (formerly considered a nyctosaurid) and Shenzhoupterus chaoyangensis (at the time of description the only preserved posterior region of a skull of a chaoyangopterid, which made clear that those toothless pterosaurs formed a new clade).

Woodrow, C., et al (2023) **An Eocene insect could hear conspecific ultrasounds and bat echolocation.** CURRENT BIOLOGY 33:doi.org/10.1016/j.cub.2023.10.040 (available as a free pdf)

Authors’ abstract: *Hearing has evolved independently many times in the animal kingdom and is prominent in various insects and vertebrates for conspecific communication and predator detection.*

Among insects, katydid (Orthoptera: Tettigoniidae) ears are unique, as they have evolved outer, middle, and inner ear components, analogous in their biophysical principles to the mammalian ear.

The katydid ear consists of two paired tympana located in each foreleg. These tympana receive sound externally on the tympanum surface (usually via pinnae) or internally via an ear canal. The ear canal functions to capture conspecific calls and low frequencies, while the pinnae passively amplify higher-frequency ultrasounds including bat echolocation.

Together, these outer ear components provide enhanced hearing sensitivity across a dynamic range of over 100 kHz. However, despite a growing understanding of the biophysics and function of the katydid ear, its precise emergence and evolutionary history remains elusive.

Here, using microcomputed tomography scanning, we recovered geometries of the outer ear components and wings of an exceptionally well-preserved katydid fossilized in Baltic amber (44 million years).

Using numerical and theoretical modeling of the wings, we show that this species was communicating at a peak frequency of 31.62 (\pm 2.27) kHz, and we demonstrate that the ear was biophysically tuned to this signal and to providing hearing at higher-frequency ultrasounds (>80 kHz), likely for enhanced predator detection.

The results indicate that the evolution of the unique ear of the katydid, with its broadband ultrasonic sensitivity and analogous biophysical properties to the ears of mammals, emerged in the Eocene.

Environmental Science.

Lau, S.C.Y., et al (2023) **Genomic evidence for West Antarctic Ice Sheet collapse during the Last Interglacial.** SCIENCE 382:doi.org/10.1126/science.ade0664

Authors’ abstract: *The marine-based West Antarctic Ice Sheet (WAIS) is considered vulnerable to irreversible collapse under future climate trajectories, and its tipping point may lie within the mitigated warming scenarios of 1.5° to 2°C of the United Nations Paris Agreement.*

Knowledge of ice loss during similarly warm past climates could resolve this uncertainty, including the Last Interglacial when global sea levels were 5 to 10 meters higher than today and global average temperatures were 0.5° to 1.5°C

warmer than preindustrial levels. Using a panel of genome-wide, single-nucleotide polymorphisms of a circum-Antarctic octopus, we show persistent, historic signals of gene flow only possible with complete WAIS collapse.

Our results provide the first empirical evidence that the tipping point of WAIS loss could be reached even under stringent climate mitigation scenarios.

Lepczyk, C.A., et al (2023) **A global synthesis and assessment of free-ranging domestic cat diet.** NATURE COMMUNICATIONS 14:doi.org/10.1038/s41467-023-42766-6 (available as a free pdf)

Authors' abstract: *Free-ranging cats (Felis catus) are globally distributed invasive carnivores that markedly impact biodiversity. Here, to evaluate the potential threat of cats, we develop a comprehensive global assessment of species consumed by cats.*

We identify 2,084 species eaten by cats, of which 347 (16.65%) are of conservation concern. Islands contain threefold more species of conservation concern eaten by cats than continents do. Birds, reptiles, and mammals constitute ~90% of species consumed, with insects and amphibians being less frequent.

Approximately 9% of known birds, 6% of known mammals, and 4% of known reptile species are identified in cat diets. 97% of species consumed are <5 kg in adult body mass, though much larger species are also eaten.

The species accumulation curves are not asymptotic, indicating that our estimates are conservative. Our results demonstrate that cats are extreme generalist predators, which is critical for understanding their impact on ecological systems and developing management solutions.

Since house cats (Felis catus) were domesticated over 9,000 years ago, humans have introduced them across much of the world. Today, cats inhabit all continents, except Antarctica, and have been introduced to hundreds of islands, making them amongst the most widely distributed species on the planet.

Because of this cosmopolitan distribution, cats have disrupted many ecosystems to which they have been introduced. Specifically, cats spread novel diseases to

a range of species including humans, out-compete native felids and other mesopredators, threaten the genetic integrity of wild felids, prey on native fauna, and have driven many species to extinction.

As a result, free-ranging cats (i.e., owned or unowned cats with access to the outdoor environment) are amongst the most problematic invasive species in the world. One attribute that has allowed cats to be successful invaders is their generalist diet.

Cats are opportunistic predators and obligate carnivores that can survive on pre-formed and metabolic water in food for months. Furthermore, cats have evolved to survive only on animal tissue and have a set of specific nutritional adaptations as carnivores.

Specifically, cats have a limited ability to regulate enzymes of amino acid metabolism, and an inability to use plant material for conversion to amino acids and vitamins. Hence, while cats consume plant material, they are dependent on meeting their energetic demands through consuming a high protein diet.

As a result of these physiological needs and behavioral attributes, cats are known to depredate and scavenge a wide variety of animals. Dietary analyses have been carried out for cats around the world for well over 100 years, with many studies revealing that either birds or small mammals are the dominant prey items, often depending upon the ecosystems in which the studies were conducted.

Such dietary differences across studies are likely in part a reflection of differences among locations in prey availability. Hence, while widely distributed species are commonly found in cat diets [e.g., house mouse (Mus musculus), house sparrow (Passer domesticus)], this is more a reflection of study location and prey distribution and abundance, rather than diet preference.

Lin, J.W., et al (2023) **Loss of sea turtle eggs drives the collapse of an insular reptile community.** SCIENCE ADVANCES 9:doi.org/10.1126/sciadv.adj7052 (available as a free pdf)

Authors' abstract: *Marine subsidies are vital for terrestrial ecosystems, especially low-productivity islands. However, the impact of losing these*

subsidies on the terrestrial food web can be difficult to predict. We analyzed 23 years of survey data from Orchid Island, Taiwan, to assess the consequences of the abrupt loss of an important marine subsidy.

After climate-driven beach erosion and predator exclusion efforts resulted in the abrupt loss of sea turtle eggs from the terrestrial food web, predatory snakes altered their foraging habitats.

This increased predation on other reptile species in inland areas, resulting in population declines in most terrestrial reptile species. Comparisons with sea turtle-free locations where lizard populations remained stable supported these findings.

Our study emphasizes the cascading effects of generalist predators and the unintended consequences of single-species conservation, highlighting the importance of understanding species interconnectedness and considering potential ripple effects in marine-dependent insular ecosystems.

Sea turtles provide essential links between marine and terrestrial ecosystems, transporting nutrients and energy from the ocean to the land by nesting in beach habitats. Their nests contain substantial nutrition, energy, and biomass, with a large portion remaining within the terrestrial ecosystem.

For example, in 1996, loggerhead sea turtle nests on a 21-km stretch of beach contained an estimated 1.6 million eggs, but only about 27% of the energy content within these nests returned to the ocean as hatchlings, with the remaining resources staying onshore and entering the local terrestrial ecosystem.

This input of nutrients from sea turtles is vital for the health and functioning of inland ecosystems, supporting both animal and plant communities, and is especially important for island ecosystems with more limited availability of nutrients from other sources.

Büntgen, U., et al (2023) **Drought as a trigger of the rapid rise of professional skateboarding in 1970s Southern California.** PNAS NEXUS 2:doi.org/10.1093/pnasnexus/pgad395 (available as a free pdf)

Authors’ abstract: *In 1977, California authorities responded to an extreme drought with an unprecedented state order to drastically reduce domestic water usage and leave countless newly built swimming pools empty. These curved pools became “playgrounds” for inspired surfers to develop professional vertical skateboarding in the Los Angeles area.*

Industrial production of polyurethane, and the advent of digital photography, laser printing, and high gloss mass media further contributed to the explosive popularization of skateboarding, creating a global subculture and multibillion-dollar industry that still impacts music, fashion, and lifestyle worldwide.

Our interdisciplinary investigation demonstrates that neither the timing nor the location of the origin of professional skateboarding was random. This modern case study highlights how environmental changes can affect human behavior, transform culture, and engender technical innovation in the Anthropocene.

Zoology.

von Deimling, J.S., et al (2023) **Millions of seafloor pits, not pockmarks, induced by vertebrates in the North Sea.** COMMUNICATIONS EARTH AND ENVIRONMENT 4:doi.org/10.1038/s43247-023-01102-y (available as a free pdf)

Authors’ abstract: *Seabed pockmarks are among the most prominent morphologic structures in the oceans. They are usually interpreted as surface manifestation of hydrocarbon fluids venting from sediments.*

Here we suggest an alternative hypothesis of pockmark formation based on latest multibeam echosounder data with a centimeter resolution.

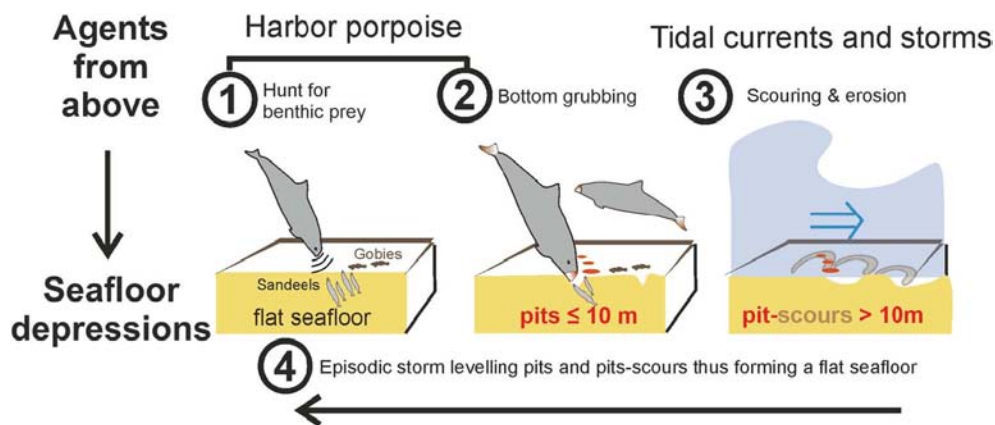
In the North Sea, >40,000 enigmatically shaped shallow depressions or ‘pits’ with a mean depth of 0.11 m were documented, that do not resemble known pockmark morphologies.

Combining the new echosounder data with information from behavioral biology, physical oceanography, satellite remote sensing and habitat mapping, we conclude that harbor porpoises excavate sediments during benthic foraging.

By grubbing the seabed, they cause sandeels to escape from the sediment and initiate the formation of seafloor pits. Time-lapse data reveals that the initially feeding pits serve as nuclei for scouring and eventually merge into larger scour-pits.

With the immense number of vertebrates in the ocean, such megafauna-driven macro-bioturbation reshapes the seafloor, modulates sediment transport, and ultimately impacts associated ecosystems on a global scale.

[Images are from this paper.]



Human Prehistory.

Castrillon, G., et al (2023) **An energy costly architecture of neuromodulators for human brain evolution and cognition.** SCIENCE ADVANCES 9:doi.org/10.1126/sciadv.adi7632 (available as a free pdf)

Authors' abstract: *In comparison to other species, the human brain exhibits one of the highest energy demands relative to body metabolism. It remains unclear whether this heightened energy demand uniformly supports an enlarged brain or if specific signaling mechanisms necessitate greater energy.*

We hypothesized that the regional distribution of energy demands will reveal signaling strategies that have contributed to human cognitive development.

We measured the energy distribution within the brain functional connectome using multimodal brain imaging and found that signaling pathways in evolutionarily expanded regions have up to 67% higher energetic costs than those in sensory-motor regions.

Additionally, histology, transcriptomic data, and molecular imaging independently reveal an up-regulation of signaling at G-protein-coupled receptors in energy-demanding regions.

Our findings indicate that neuromodulator activity is predominantly involved in cognitive functions, such as reading or memory processing. This study suggests that an up-regulation of neuromodulator activity, alongside increased brain size, is a crucial aspect of human brain evolution.

Over 400 million years, the brain structure of various species has evolved according to similar organizational principles. Neurons, acting as the local signaling units, form a dense connectome with widespread signaling pathways through their synapses.

Nonetheless, when compared to humans, certain mammals exhibit larger brain sizes (e.g., the Indian elephant), higher brain-to-body mass ratios (e.g., the mouse), or a greater number of neurons (e.g., the long-finned pilot whale).

This suggests that brain structure scaling is not the only factor that has contributed to the emergence of human cognition. Here, our focus is on exploring the metabolic characteristics of the brain connectome.

The brain depends on a constant supply of energy substrates and, in the case of humans, ranks among the organs with the highest energy demands. In comparison to other species, the human brain exhibits one of the highest energy demands relative to body metabolism.

How does metabolic energy distribute across the brain? The fundamental design of neurons has been conserved throughout evolution, with the signaling costs of individual cells being comparable across different mammals. On a systems level, the human brain has the expected quantity of neurons and nonneuronal cells for a primate brain of its size.

Furthermore, it maintains a similar distribution of neurons throughout its cerebral cortex as observed in other species. As a result, we hypothesized that regional energy demands will vary based on the degree of signaling within the brain connectome.

In addition to the degree of neuronal signaling, researchers suggest that neuromodulation plays a crucial role in adaptive behavior and cognition in humans. Topological analysis of the brain connectome even suggests a trade-off in energetic costs between signaling efficiency and modulation.

Although our knowledge of the impact of neuromodulation on human evolution is still evolving, receptor autoradiography data from human donor brains reveal substantial variations in the distribution of neuromodulator receptors across the cortex.

Comparative studies of the brain metabolome further demonstrate substantial differences in metabolites related to energy metabolism and synaptic modulation between the human brain and closely related primate species, with a notable regional variability.

Gannon, C., et al (2023) **Open plains are not a level playing field for hominid consonant-like versus vowel-like calls.** SCIENTIFIC REPORTS 13:doi.org/10.1038/s41598-023-48165-7 (available as a free pdf)

Authors' abstract: *Africa's paleo-climate change represents an "ecological black-box" along the evolutionary timeline of spoken language; a vocal hominid went in and, millions of years later, out came a verbal human.*

It is unknown whether or how a shift from forested, dense habitats towards drier, open ones affected hominid vocal communication, potentially setting stage for speech evolution. To recreate how arboreal proto-vowels and proto-consonants would have interacted with a new ecology at ground level, we assessed how a series of orangutan voiceless consonant-like and voiced vowel-like calls travelled across the savannah.

Vowel-like calls performed poorly in comparison to their counterparts. Only consonant-like calls afforded effective perceptibility beyond 100 metres distance without requiring repetition, as is characteristic of loud calling behaviour in nonhuman primates, typically composed by vowel-like calls.

Results show that proto-consonants in human ancestors may have enhanced reliability of distance vocal communication across a canopy-to-ground ecotone. The ecological settings and soundscapes experienced by human ancestors may have had a more profound impact on the emergence and shape of spoken language than previously recognized.

Dogandzic, Tamara (2023) **The Middle Paleolithic of the Balkans: Industrial variability, human biogeography, and Neanderthal demise.** JOURNAL OF WORLD PREHISTORY 36:doi.org/10.1007/s10963-023-09179-1 (available as a free pdf)

Authors' abstract: *Europe is characterized by an uneven record of Middle Paleolithic occupations. Specifically, large parts of southeastern Europe display markedly lower site densities and less intensive evidence of human presence than is found elsewhere.*

This has often resulted in the exclusion of the Balkans from debates related to Pleistocene human adaptation. The discrepancy stems either from the lower population densities of southeastern Europe or an imbalance in research across Europe.

Additionally, our understanding of Balkan Middle Paleolithic stone tool industries suffers from the use of Mousterian labels defined when Bordian typology was the chief method of lithic analysis. Industrial facies then defined and still in use include Balkan Charentian, Levallois Mousterian, Micromousterian, Denticulate Mousterian.

Their relation with the rest of the Eurasian record was and remains unclear. This paper sets aside the issue of scarcity of Pleistocene occupations and tries to address Neanderthal biogeography, and variations in Neanderthal technological behavior and subsistence, based on the available record.

It reviews the current Middle Paleolithic record in the Balkans, presents the apparent temporal and spatial trends, and presents the provisional biogeography of hominins, including scenarios for the demise of Neanderthals at or soon after the arrival of modern humans in Europe.

Given the data available thus far, Neanderthals disappeared around 43–42 ka BP, if not even earlier.

Chen, N., et al (2023) **Evidence for early domestic yak, taurine cattle, and their hybrids on the Tibetan Plateau.** SCIENCE ADVANCES 9:doi.org/10.1126/sciadv.adi6857 (available as a free pdf)

Authors’ abstract: *Domestic yak, cattle, and their hybrids are fundamental to herder survival at high altitudes on the Tibetan Plateau. However, little is known about their history. Bos remains are uncommon in this region, and ancient domestic yak have not been securely identified.*

To identify Bos taxa and investigate their initial management, we conducted zooarchaeological analyses of 193 Bos specimens and sequenced five nuclear genomes from recently excavated assemblages at Bangga.

Morphological data indicated that more cattle than yak were present. Ancient mitochondrial DNA and nuclear genome sequences identified taurine cattle and provided evidence for domestic yak and yak-cattle hybridization ~2,500 years ago.

Reliance on diverse Bos species and their hybrid has increased cattle adaptation and herder resilience to plateau conditions. Ancient cattle and yak at Bangga were closely related to contemporary livestock, indicating early herder legacies and the continuity of cattle and yak husbandry on the Tibetan Plateau.

Domestic yak (Bos grunniens), taurine cattle (Bos taurus), and their hybrids are indispensable to the everyday life of people on the Tibetan Plateau today.

Contemporary highland pastoralists rely on the strength and hardiness of domestic yak for transportation across vast mountainous terrain and for supplies of milk, meat, fiber, and dung for fuel.

Cattle and yak-cattle hybrids complement yak, supporting herders under different conditions. Hybrids are hardy and productive at mid-elevations (approximately 2,500 to 3,500 metres above sea level, and cattle are especially valued at low elevations.

Hybrids produce more milk and meat and are stronger than cattle at high altitudes. They are better adapted to low elevations than yak and expand possibilities for milk and traction at the mid-elevations, where male hybrid “dzo” and female hybrid “dzomo” are commonly used today.

Reiche, I., et al (2023) **First discovery of charcoal-based prehistoric cave art in Dordogne.** SCIENTIFIC REPORTS 13:/doi.org/10.1038/s41598-023-47652-1 (available as a free pdf)

Authors’ abstract: *Archaeologists have long been puzzled by the exact age of Paleolithic cave art in Europe especially in the Franco-Cantabrian region with hundreds of decorated caves because the creation of this parietal art (paintings, drawings and engravings) is closely tied to the appearance of first modern humans in Europe and their ways of life.*

The Dordogne region, one of the richest regions in terms of Paleolithic cave art in the world with more than 200 cave sites, is currently known to provide figures of cave art solely made with mineral coloring matters that cannot be dated directly.

Using in-situ non-invasive Raman spectroscopy combined with portable X-ray fluorescence analysis as well as visible and infrared imaging of the decor of the Font-de-Gaume cave, we show the presence of a large number of charcoal-based Paleolithic figures besides others made of iron and manganese oxides in the main galleries for the first time.

The creation periods of the cave art at Font-de-Gaume are mainly attributed to the Magdalenian period and probably more complicated constituted of at least two creation phases than commonly established as shown by the direct or partial superimposition of carbon-based and iron- and/or manganese-based figures.

Chambon, P., and A. Thomas (2023) **The first monumental burials in the 5th Millennium BC: Unresolved questions about the emergence of the ‘Passy Phenomenon’.** JOURNAL OF WORLD PREHISTORY 36:doi.org/10.1007/s10963-023-09180-8

Authors’ abstract: *Funerary monuments appeared shortly after the arrival of the first farmers along the Atlantic Coast of continental Europe, during the first half of the fifth millennium.*

These enormous constructions, belonging to the ‘Passy’ phenomenon, can measure over 350 metres in length and were erected to commemorate high-status individuals.

No funerary evidence from the previous period hints at the emergence of these monuments. They do not exhibit any geographical continuity, originating from different cultural substrates.

Nevertheless, these structures are characterized by the repetition of specific traits, including their layout and their spatial articulation, as well as a high degree of gender segregation and a focus on hunting or archery. This convergence reflects a well-established social structure and ideology, shared between communities.

Moreover, it implies that the descendants of the two main cultures responsible for the spread of agriculture in Europe, the Linearbandkeramik and the Impresso-Cardial, which met at the end of the continent and which absorbed the descendants of the last hunter-gatherers, generated a new value system, and likely a new religious universe.

While the funerary monumentality that appeared alongside the Passy phenomenon continued in the form of megaliths, the system eventually collapsed after a few centuries, which was to be expected, given its extreme character.

Modern Humans.

Agron, S., et al (2023) **A chemical signal in human female tears lowers aggression in males.** PLOS BIOLOGY 21:doi.org/10.1371/journal.pbio.3002442 (available as a free pdf)

Authors’ abstract: *Rodent tears contain social chemosignals with diverse effects, including blocking male aggression. Human tears also contain a chemosignal that lowers male testosterone, but its behavioral significance was unclear.*

Because reduced testosterone is associated with reduced aggression, we tested the hypothesis that human tears act like rodent tears to block male aggression.

Using a standard behavioral paradigm, we found that sniffing emotional tears with no odor percept reduced human male aggression by 43.7%. To probe the peripheral brain substrates of this effect, we applied tears to 62 human olfactory receptors in vitro.

We identified 4 receptors that responded in a dose-dependent manner to this stimulus. Finally, to probe the central brain substrates of this effect, we repeated the experiment concurrent with functional brain imaging.

We found that sniffing tears increased functional connectivity between the neural substrates of olfaction and aggression, reducing overall levels of neural activity in the latter.

Taken together, our results imply that like in rodents, a human tear-bound chemosignal lowers male aggression, a mechanism that likely relies on the structural and functional overlap in the brain substrates of olfaction and aggression.

We suggest that tears are a mammalian-wide mechanism that provides a chemical blanket protecting against aggression.

Technology.

Chan, W.S. (2023) **Breaking the silk dress cryptogram.** CRYPTOLOGIA 47:doi.org/10.1080/01611194.2023.2223562 (available as a free pdf)

[A cipher involves substitution at the level of letters, whereas a code deals with substitution at the level of words or phrases.]

Author’s extracts: *In December 2013, archaeological curator Sara Rivers-Cofield discovered two ostensibly encrypted notes in a hidden pocket of a Victorian-era silk dress. Rivers-Cofield, who collects vintage costumes in her spare-time, had purchased the dress at an antique mall in Maine during the holiday season.*

By Rivers-Cofield’s estimate, the two-piece bustle dress made of bronze-colored silk is believed to date from the mid-1880s. The so-called “Silk Dress cryptogram” has remained unsolved since its discovery and is on cryptologist Klaus Schmeh’s list of the top 50 unsolved codes and ciphers in the world on his “Cipherbrain” blog.

Based on its appearance, the Silk Dress cryptogram is more likely a code rather than a cipher because of its use of plaintext words in English. From the time period of the dress, it is hypothesized that the code could be a telegraph code.



telegraph era. Different industries had specialized codebooks and companies often had their own in-house codes.

After the search of available codebooks proved to be largely unsuccessful, I decided to learn more about the telegraphic era and came across an old book called *Telegraphic Tales and Telegraphic History* (Johnston, 1880). In one section, the role of the U.S. Army Signal Service in weather reporting was discussed, and an example of the telegraph code was provided: “YORK, MONDAY, DEAD, FIRE, GRIND, HIMSELF, ILL, OVATION, VIEW”.

The style of the code and the fact that it began with a place name suggested a close match to the Silk Dress codetext. This was the key that led to the decoding of the cryptogram.

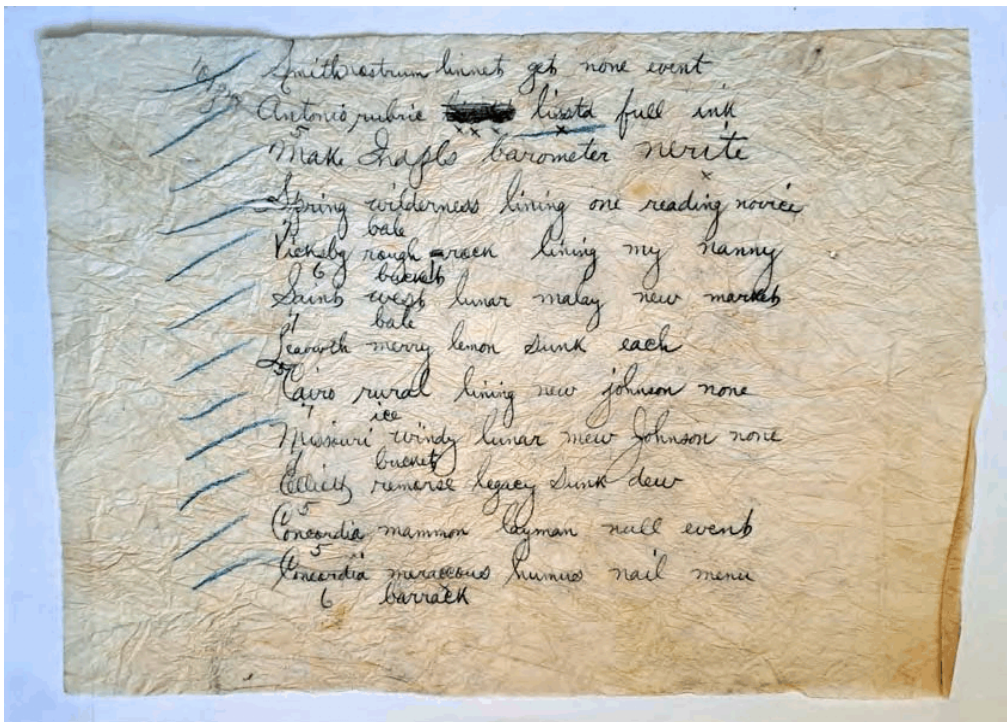
Systematic nationwide weather observations in the United States began under the auspices of the Smithsonian Institution in 1849. ... Observations were not limited to the continental United States. Beginning in 1871, there was an agreement between the weather services of the United States and Canada to exchange daily meteorological observations via telegraph.

The key to narrowing the date was found in the messages for the Canadian stations. Although messages for the American stations did not encode the date, it was found that the Canadian messages did encode the day of the month as the second field of the message.

Messages 2.7, 2.8, and 2.11 for Fort Garry, Minnedosa, and Calgary, respectively, contained the word “NOUN” as the second field, meaning the evening observation for the 27th of the month.

“MINNEDOS” in Message 2.8 is Minnedosa, Manitoba, a town west of Winnipeg. “CALGARRY” is Calgary, Alberta. It should be noted that the misspelling with a double “r” is how it was spelled in the 1887 and 1889 Signal Service codebooks. This was corrected in the 1892 edition.

In Message 2.12, “LANDING” refers to Prince Arthur’s Landing, Ontario, which is now called Thunder Bay. Messages 2.9–2.11 are noteworthy as they represent all three daily observations for Calgary.



These types of codes were common in the late 19th century and were mainly used either to reduce the cost of sending telegrams or for privacy. A proliferation of commercial and private codebooks were published during the

As to the identity of the original owner of the silk dress, the available evidence points towards someone working at the central Signal Service office in Washington, D.C., perhaps as a member of the clerical staff.

Smirnov, I., et al (2023) **Toxic comments are associated with reduced activity of volunteer editors on Wikipedia.** PNAS NEXUS 2:doi.org/10.1093/pnasnexus/pgad385 (available as a free pdf)

Authors’ abstract: *Wikipedia is one of the most successful collaborative projects in history. It is the largest encyclopedia ever created, with millions of users worldwide relying on it as the first source of information as well as for fact-checking and in-depth research.*

As Wikipedia relies solely on the efforts of its volunteer editors, its success might be particularly affected by toxic speech. In this paper, we analyze all 57 million comments made on user talk pages of 8.5 million editors across the six most active language editions of Wikipedia to study the potential impact of toxicity on editors’ behavior.

We find that toxic comments are consistently associated with reduced activity of editors, equivalent to 0.5 to 2 active days per user in the short term. This translates to multiple human-years of lost productivity, considering the number of active contributors to Wikipedia.

The effects of toxic comments are potentially even greater in the long term, as they are associated with a significantly increased risk of editors leaving the project altogether.

Using an agent-based model, we demonstrate that toxicity attacks on Wikipedia have the potential to impede the progress of the entire project. Our results underscore the importance of mitigating toxic speech on collaborative platforms such as Wikipedia to ensure their continued success.

FREE STUFF ONLINE

You will have noticed that I provide sources for the pdfs and mp3s reviewed in this zine. Here is a summary of some good resources, all of which are free.

In particular, the “Seen In The Literature” column cites only peer-reviewed papers. For topics such as climate change or social media effects, more people should be reading these papers instead of blogs where commentators confuse their opinions as being facts.

For scientific papers for which free pdfs are available, the easiest method is to Google either the title of the paper or its digital object identifier, the phrase beginning with doi.org.

Many papers are behind a paywall, so unless you have access to a university library computer, you can only get the abstract. However, the abstract is often enough to understand the gist of the article.

Every scientific periodical has free email notifications of each new issue’s table of contents. I subscribe to dozens of notification services, in case you were wondering how I manage to keep up with the literature.

For zines, www.efanzines.com provides current pdf zines as well as some older ones. A club called Fanac at www.fanac.org does the reverse; they provide thousands of old zines from the 1930s to date, with a few current zines. Both sites have a free email notification service you can subscribe to.

The Old Time Radio Researchers have thousands of old-time radio shows (1930s to 1950s) covering all the genres, such as comedy, science fiction, fantasy, and mystery. Visit www.otrr.org/OTRRLibrary.

They also publish a free bulletin OLD RADIO TIMES, available at www.otrr.org/?c=times, with an email notification service. Don’t pay money for audio books and listen to a droning voice when you can listen for free to full-cast shows such as Jack Benny or Inner Sanctum from the OTRR.

For pulp fiction magazines from all genres, visit www.archive.org/details/pulpmagazinearchive?&sort=-downloads&page=2
Books in the public domain are free from www.gutenberg.org