

OPUNTIA 539



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.

AROUND COWTOWN

photos by Dale Speirs

About The Cover.



The red car was the Opuntiamobile (look closely at the licence plate).

After I parked, I noticed the footprints, which struck me as hilariously funny.

Probably a concrete worker stopping in to pick up lunch from the deli.

I followed the tracks to the store but inside he wiped his feet on the floor mat.

Photo taken before the blizzards came rolling in.

A few weeks later at Chez Opuntia, my resident snowshoe hare completed its conversion to winter camouflage.



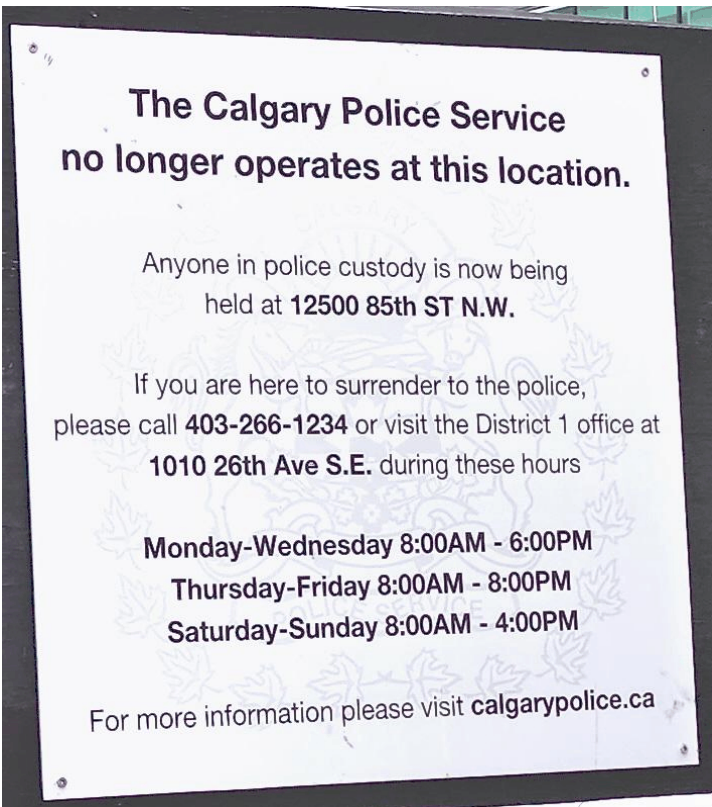
LICENCED TO DRIVE: PART 8

photos by Dale Speirs

[Parts 1 to 7 appeared in OPUNTIA #476, 482, 489, 497, 503, 513, and 528. Previous licence plate photos were in OPUNTIA's #63.5A, 410, 421, 445, 452, 459, and 471.]

How's This For A Segue?

These two licence plates were seen by the downtown court house.



The Calgary Police Service closed its downtown station and redistributed the constables to other offices.

The address 12500 - 85 Street NW is the Spy Hill jail way out in the country, not even part of the city.



In 2021, the provincial government did away with licence plate year tags. The presumption was that any constable pulling over a car would run the licence plate through the computer anyway. An unexpected effect was that antique car owners could use older plates and register those numbers as vanity plates.





SHERLOCKIANA: PART 40

by Dale Speirs

[Parts 1 to 39 appeared in OPUNTIA's #63.1B, 63.1C, 63.1D, 67.1D, 68.1C, 69.1E, 70.1A, 71.1B, 251, 253, 256, 261, 269, 270, 276, 288, 309, 333, 340, 348, 356, 359, 365, 370, 383, 397, 410, 416, 423, 433, 457, 470, 474, 486, 492, 496, 501, 510, and 526.]

The original Sherlock Holmes stories written by Sir Arthur Conan Doyle are referred to as the canon, while stories written by other authors are called pastiches.

Pastiches: Anthologies.

A SHERLOCK HOLMES ALPHABET OF CASES: VOLUME 5 (U TO Z), published in 2021, concluded a pastiche series by Roger Riccard. Previous volumes were reviewed in OPUNTIA's #496, 501, 510, and 526.

The collection began with “The Uniform Which Wasn’t”. Baker Street was visited by Charles Roberts, who wanted Holmes to find what happened to a friend Clarence Robbins, serving with the British Army in India.

Watson did substantial investigating on his own. Together the two learned that Roberts was the real Robbins, who had paid another man to go in his place to serve in India.

The problem developed when the regiment was ordered into Afghanistan and placed under tight security. That included a communications blackout, which in those days meant no mail or telegraph messages.

The real Robbins relied for his imposture on his replacement re-mailing letters back to England to family and friends to help maintain the fiction he was overseas. A tricky situation which was conveniently solved when Robbins’ father died unexpectedly and left him the estate.

“The Victorian Principles” brought Thomas Hardy to Holmes as a client. In his day, Hardy was considered a pedlar of smut and anarchy through his novels. Today he is only read by college students because they have to for a course, and his style is obsolete.

Threatening letters and verbal abuse were long an accepted hazard for authors. When someone began firing shots at Hardy, he rightly did not place much faith in the village constabulary and went to see Holmes.

The investigation was a plodding one, as it had to be. Holmes surmised a clergyman was the would-be assassin and collected the facts. Watson did his share of detecting. Finally the culprit was brought to justice by using a mirror.

“The Wyt Resolution” was a continuation from a previous pastiche in an earlier volume. The Wyt family and associates were rebels with a lost cause. They sought freedom for Heligoland, an island between Denmark and Germany, but also once owned by the British in a fit of absent-mindedness.

The Wyts were Danish and plotted against the Kaiser. The Holmes brothers had to head them off, lest all Europe be plunged into war. The island had been traded off to Germany and is still part of it today. The plot was therefore a secret history to satisfy the rebels, yet explain why the island is still German territory.

“Xavier Madison’s Lost Treasure” was about homophones and a dying man’s last words. Homophones are words with different meanings but pronounced the same, such as flower and flour.

Spencer Madison, heir to his uncle Xavier, couldn’t find the family treasure. His uncle had suffered a fatal heart attack and gasped out ambiguous words, homophones, trying to say where the treasure was hidden.

Holmes visited the manor. After each person rendered his or her version of what Xavier said, Holmes deduced what the words were and found the treasure. Such is the English language as she is spoke.

“The Adventure At The Great Yorkshire Show” took place in 1920 when Holmes and Watson were old men. Duty called them to assist the authorities, as Russian revolutionaries were retaliating against the Allies trying to overthrow the newborn Soviet regime.

Holmes and Watson tracked two would-be assassins aiming for the princes Edward and Albert. The royals were visiting an agricultural fete. The attempted attack would be against a convoy of vehicles en route to the show.

Since both princes survived in our timeline, this was a secret history. The Commies were stymied and Holmes was able to return to his bees.

The final story of the collection was “The Zuchen Family Plot”. That family was beset by claim jumpers who wanted their farm for profiteering purposes. The action took place just after World War One, when anti-German feeling was still high in England.

The Zuchens weren’t German but the conspirators were still able to rile up the villagers and make trouble. The father of the household was lynched. His body was staged to look like suicide, thereby denying the widow the life insurance.

Without the money, she wouldn’t be able to keep the farm, and the villains would buy her out to redevelop the land. Holmes and Watson had all they could do to stop the conspirators, who had infiltrated the local government and police. Justice was mostly served.

Pastiches: Short Stories.

“The Adventure Of The Home Office Baby” by David Marcum (2020 Feb/May, STRAND MAGAZINE) began with a flashback to a political dispute two decades prior. In the hubbub, a protestor mailed a stillborn baby to the Home Office.

Now the mother of that baby consulted Holmes, having received a letter claiming the baby had lived and that a current cabinet minister knew the back story. Holmes didn’t believe the woman, having recognized her as a spy sent to stir up trouble.

With Mycroft’s help, the two brothers diverted her with a set of fake navy plans. She dropped her original scheme and stole the plans. Back in her homeland, her controllers recognized the plans as fakes, ruining her career as a spy.

MYSTERY WEEKLY MAGAZINE was, despite its title, a monthly. I’m sure there was a reason. MWM was published out of Ancaster, Ontario, at www.mysteryweekly.com, although I bought my copies via Amazon print-on-demand. This periodical has a wide variety of mystery fiction but the issues I buy are the Sherlock Holmes specials, published every October.

MYSTERY WEEKLY MAGAZINE for 2020 October was another Sherlock Holmes special issue. Leading off was the pastiche “The Case Of The Count Of Saint Germain” by Martin Rosenstock, set in 1911. The world was expecting imminent war, prematurely but not by much as events transpired.

At an elegant party in London, a Frenchman attempted to assassinate the German ambassador. He failed because just as he squeezed the trigger on his gun, a Hungarian count from Transylvania deflected the gun up to the ceiling, then put a dagger into the Frenchman’s heart. The count disappeared in the subsequent chaos.

Lestrade had his hands full, with Whitehall breathing down his neck. Both German and French radicals were looking for any excuse to mobilize their armies. Holmes and Watson were called in to locate the count and help diffuse the situation. The count didn’t survive but the peace did, temporarily as we all know.

The story immediately following was another pastiche “The Case Of Vigor, The Hammersmith Wonder” by Larry Lefkowitz. A woman was found dead in a locked room, with a knife in her heart. Holmes deduced the killer stood at an open window and was a midget on stilts who worked a knife-throwing act in a music hall.

No, seriously, he did. One wonders why Holmes didn’t deduce that the midget was Armenian, sang baritone in a church choir, enjoyed chocolate ice cream, and owned a marmalade cat.

The next pastiche was better. “The Adventure Of The Turned Tables” by Michael Mallory. Perusing the daily newspapers, Holmes noticed that ten burglaries had occurred simultaneously across London, each resulting in the theft of a trivial item worthless on the black market.

The pattern was a test run by Professor Moriarty and his 2-in-C Sebastian Moran, preparatory to heisting an art museum. Holmes was on to them, and stymied their raid. What was surprising was that Moriarty was killed. Authors normally like to let him escape for the next escapade.

“A Clockwork Crook” by John H. Dromey was about a kidnapped woman chained in a room with a clockwork mechanism of lethal gas. The kidnapper demanded a ransom before the clockwork tripped the poison gas generator.

Holmes and the police could not enter the room to free the hostage because of booby traps. They had a plan to disable the gas generator which involved an opera singer hitting a high C note to smash the glasswork. A clever plot about a Rube Goldberg device.

“The Case Of The Burnt Wires” by J.J. White dated back to the dawn of electric system utilities and the struggle between proponents of direct current and those for alternating current. The direct current faction tried to demonstrate the lethality of AC by publicly electrocuting animals to demonstrate how dangerous it was.

Henrik Pedersen was one such person, who had sunk his fortune into DC and lost the money. He supposedly committed suicide but had been electrocuted by a murderer using DC. The widow was an early romantic attachment of Holmes in his youngest days. Notwithstanding that, he found her out as the murderer.

Holmes provided the evidence but it wasn’t enough to convict. For once, the accused didn’t break down and sob a confession. They seldom do in real life, but lazy mystery writers use confessions for an easy ending.

“The Affair Of The Heart” by Teel James Glenn took place on a train when Holmes and Watson were returning to London from a case out in the country. In the dining car they met a trio, a young woman of wealth, her much older fiancé, and her jealous younger brother, who thought the fiancé was trying to take advantage of her.

He was, but first had to clear the tracks (pardon the pun) by killing the brother, making the death look like an accident. The murder was done by a killing blow to the chest using martial arts. Since Holmes knew the same techniques, the killer didn’t escape.

The 2020 October MWM also contained what were not pastiches set in the Victorian era nor parodies in a music hall style, but adaptations that used Holmes as a template.

“The Adventure Of Sherlock Hominid” by Teel James Glenn was set in a parallel universe where Holmes, Watson, et al, were primates on a planet where all the apes had developed speech and civilization. Like the movies, except set in the Victorian era.

“The Baker Station Irregulars” by Eric Del Carlo was set in outer space. Baker was an O’Neill cylinder somewhere out in the asteroid belt. A murder mystery that stymied the police was being investigated by the great consulting detective Heath Minshaw, assisted by his amanuensis Jules Odette. The narrative was by a street urchin who earned the occasional coin working as an Irregular for Minshaw.

“Strangers In Blood” by Adam Beau McFarlane was set in the 1920s. Two British expatriates were living in New York City during the Jazz Era. Dr James Watson was the son of the Watson, and his live-in girlfriend was Dorothy Volant, the illegitimate and unacknowledged daughter of Holmes.

They were hired to prove a man was the illegitimate son of a recently deceased millionaire and was therefore entitled to the inheritance. The alleged father had died intestate. Volant had Daddy issues, so this gave her room to play them out.

“Death And The Doctor” by Adam Beau McFarlane was another Dorothy Volant and James Watson story. A woman was murdered in her own home but in stages. She was left to suffer for hours before the coup de grace was administered. Her husband was a doctor carrying on an affair with a nurse who wanted exclusive possession.

The nurse struck first but left the wife half dead. When the doctor arrived home hours later, he had no choice but to finish the job and put his wife out of her misery. He was acquitted for insufficient evidence and the nurse was never even tried. The courts are like that sometimes.

Pastiches: Novels.

THE HOUSE AT BAKER STREET (2016) by Michelle Birkby relegated Holmes and Dr Watson, and made Mrs Hudson and Mary Watson the prime investigators. Holmes had refused a case involving Laura Shirley, so the two women did the investigating themselves.

The novel began by filling in the back story about how Holmes and Watson came to be Mrs Hudson’s tenants, told from her viewpoint, not the version of the canon. Thence to the case.

A blackmailer was telling lies that threatened to destroy Laura’s marriage. Hudson and Mary decided to help her. There were plenty of excursions around

London, including Whitechapel where lately Jack the Ripper had roamed. Irene Adler made a guest appearance.

The Baker Street Irregulars were, pardon the expression, regulars in the plot. The scoundrel was tracked down and justice was meted out.

Pastiches: Old-Time Radio.

Sherlock Holmes was very successful on radio. He aired on several networks with several sets of actors from 1930 to 1956, encompassing the entire lifespan of old-time radio.

Basil Rathbone and Nigel Bruce had a long run, but others played the parts before and after. (These and other old-time radio shows are available as free mp3s from www.otrr.org/OTRRLibrary.)

“The Adventure Of The Iron Maiden” aired on 1947-07-07. No writer was credited although everyone else was. Holmes and Watson had just finished a case in Nuremberg. Watson was not happy in Germany. He told Holmes that the trouble with the place was that it was full of Germans.

They were approached by the Keeper of Nuremberg Castle. Herr Langer had received threatening letters demanding he resign his job. He suspected his young assistant Heydrich, who was not only ambitious but courting his daughter Elsa.

Holmes and Watson accompanied Langer to the castle. They were intercepted by a pair of English biddies, governess Miss Atterbury and her young charge Victoria Simpson, who imposed themselves into their tour.

The highlight was the torture chamber, whose devices were described in excruciating detail. (Pardon the pun.) I was surprised that this scene got past the network censor, given its goriness.

The iron maiden was of great interest to the ladies. When one of the spinsters opened it, they found inside the body of a young woman, crushed to death by the spikes. However, closer inspection revealed that she had been dead long before her corpse was placed there.

Holmes and Watson staked out the torture chamber that night. To their surprise, Langer appeared with Miss Atterbury. She wanted to see the chamber by moonlight. He strapped her into a device and, well, like I commented, it was a wonder the censor didn’t delete the scene. They were really into S&M.

Langer was stopped in time from going too far and killing her, as Watson wounded him with a gunshot. Far from being upset, Miss Atterbury was feeling quite frisky after her release. As Langer was hauled away, she propositioned Watson.

The announcer then propositioned female listeners with Kreml shampoo, just the thing to make women feel better in those hot summer nights. As for the threatening letters, that matter was forgotten.

“The Case Of The Dog Who Changed His Mind” aired on 1947-09-28, written by Edith Meiser. The new sponsor was Clipper Craft Clothes, selling men’s suits off the rack, from \$20 to \$40.

Lady Blenkinsop was found dead in a locked room, but was it suicide or murder? Her nephew Reggie, the butler Potter, her physician Dr Tillinghurst, and the maid Miss Kitty were in the manor house at the time of death, not to mention Bobo, her ladyship’s lapdog. The doctor diagnosed poison in her brandy nightcap.

Miss Kitty visited 221B and related the story. She said Lady Blenkinsop was actually French, from a family whose vineyards produced the brandy. Reggie had inherited the title and estate when Lord Blenkinsop died years before, being the next kin by blood.

Holmes said it was vital to reach Blenkinsop Manor before Scotland Yard had a chance to muck up the clues. His words. Upon arrival at the manor, they found that Scotland Yard had indeed arrived before them.

Inspector Lestrade went for the easy conclusion of suicide. Holmes interrogated the household staff and elicited numerous clues. He said that her Ladyship had been suffocated by a pillow.

The doctor done it. He had stolen her Ladyship’s fabulous pearls. An out-of-the-blue solution based on surmise. However, Tillinghurst fled and Lestrade pursued. Otherwise there could not have been a conviction in court.

Parodies: Old-Time Radio.

Jack Benny, real name Benjamin Kubelsky, was considered the greatest radio comedian, peaking in the 1940s and early 1950s. As was common with variety programmes such as his, the show was officially known by the name of the sponsor.

Outside the sponsor's office it was always called "The Jack Benny Program" by the general public. The sponsor varied over the years. The 1933-06-02 episode was sponsored by Chevrolet and titled "Sherlock Holmes And King Kong: Part 2".

Note that date. Broadcast radio began in the late 1920s but didn't spread far until the middle 1930s. The shows were considerably different in format than later.

Everyone was still learning what would and would not work in radio. Initially the performers transferred their vaudeville techniques but found out the hard way most of them would not work on radio.

At that time, the show was variety, not a sitcom. The format alternated between an orchestral number and a set of gags. In the second half of the show, there was an extended sketch, in this case the Sherlock Holmes parody.

The problem was the frequent musical numbers meant the comedians had to start cold each time instead of building on the audience's laughter. As a result, gag lines frequently fell flat or at best got a hearty chuckle.

In later years, Benny and other comedians reduced the interruptions and used more sustained humour, eventually evolving the situation comedy. Benny's wife Sadie Marks played the recurring part of Mary Livingstone, not really his girlfriend but a girl who was his friend.

Getting back to the episode, other detectives had tried and failed to solve a penthouse murder "Who Killed Mr X?". Sherlock Holmes, played by Benny, was brought in to solve the case. The character who played Watson kept changing his accent, so Holmes reminded him that he was supposed to be an Englishman.

Holmes decided to investigate at the Empire State Building. He explained to Watson that Mr X was killed by what witnesses said was a big ugly gorilla. After an orchestral number, Holmes and Watson arrived there just as the big ape was climbing the building.

King Kong was carrying Mary Livingstone. Holmes accused the ape of killing Mr X and ordered Watson to take him into custody. Mary said her goodbyes and in a Mae West voice invited Kong to come up and see her again some time.

After the arrest, The Shadow appeared and told Holmes that Kong had not killed Mr X. To be continued next week. All told, a fairly weak comedy. However, broadcast radio was just beginning, and the formulas later taken for granted were still being developed.

Pastiches: Modern Radio.

THE MIS-ADVENTURES OF SHERLOCK HOLMES was a humourous radio series that aired in the 2010s and is available from www.otrr.org/OTRRLibrary Dr Watson narrated. Mrs Hudson was Irish instead of Scottish and had a different personality than usually portrayed. Holmes was played as an idiot and Watson was the smart one who fixed up the narrative in his stories.

The mp3 episodes are mis-numbered. The internal dialogue does mention the correct episode number most of the time. The episodes are generally standalone but are best listened to in sequence because they continue story arcs across several chapters.

When I tried to research the mp3s, the Google results kept bringing up Vince Stadon as the script writer, but the mp3s credit Joe Bevilacqua and Daws Butler as the writers.

I suspect there are two radio series floating around out there with identical titles and which happened to be aired about the same time in the 2010s. Bevilacqua's Wikipedia biography made no mention of this series, but the Stadon references are different episode titles than the ones from OTRR.

Joe Bevilacqua did the intro and outro commentaries for the episodes. He gave co-credit for the scripts and occasionally full credit to Daws Butler. The sound quality of the episodes was excellent. Good humour and well recommended.

“A Study In Lavender” was announced as episode 5 by Bevilacqua, and co-written with Daws Butler. The episode began with Watson complaining about all those other authors writing pastiches under his name. Holmes busily made useless deductions about tobacco kept in slippers and why Mrs Hudson hadn’t brought up any mail today.

Hudson finally arrived with the daily post. She took the opportunity to gush over Watson’s books. She did have one minor qualm over a continuity error he made. In one story, he said he had a leg wound from the Battle of Maiwand, while in a later story he wrote he had an arm wound. Watson told her it was a mistake on his part.

Pause for digression. This error, or supposed error, actually does occur in the canon. However, Sherlockians long ago accepted the obvious explanation. Watson was wounded twice during the battle.

Holmes then launched into a story about how he had just dispatched Moriarty. The account was rather improbable, involving Holmes dressed as a fern and Moriarty slipping on a puddle of water and falling out the window of his penthouse apartment to his death.

From there, the saga of Bert Stover’s cat continued. He was suing Holmes for the wrongful death of the feline, a statement of claim being in the day’s mail. Also in the packet was a letter from Irene Adler. Her husband had died from foul play and she wanted to consult Holmes.

Adler arrived at 221B. She was disappointed at how Holmes had deteriorated since they last met, but she did fancy Watson. She identified a suspect in her husband’s death as a man disguised as a fern. Her husband’s name was James Moriarty, a mathematics professor.

The plot was interrupted by the arrival of a fan boy named Basil. He gushed at Holmes and said that someday he would play Holmes on the stage. (Movies hadn’t been invented yet.) For the two listeners who hadn’t guessed the obvious, it was later mentioned that the boy’s surname was Rathbone.

Holmes confessed to Adler that he was the man in ferns, but she was happy to be rid of Moriarty. All was well for that part, but more was to be expected in the future from Stover.

“The Death Of Mr Sherlock Holmes” was announced as episode 6, and co-written by Bevilacqua and Butler. Watson sent Holmes off on vacation so as to complete “The Final Problem”, not telling him that he died in the story. Holmes agreed to change the venue of Moriarty’s death from a penthouse suite to a Swiss mountain, unaware that Watson was going to topple him off the cliff with the Professor.

Holmes did not go straight to India but stopped off at Dartmoor to visit his friends, the Baskerville family. They were having some troubles with a dog worrying the sheep, so he stayed a while to help catch it. Meanwhile the final story was published and everyone thought Holmes was dead.

That made for problems with Holmes upon arrival in India. He was thought to be an imposter carrying a fake passport. The Customs officer ran him in. His cellmate was Gandhi. Holmes escaped and eventually made his way back to Baker Street after several years. His voyage home was via Sumatra where he picked up a giant rat.

Pastiches: Television.

In 1954 and 1955, a television series SHERLOCK HOLMES was aired on NBC. It was produced by Sheldon Reynolds in France, where production costs were much lower.

Ronald Howard portrayed Holmes and H. Marion Crawford played Watson. Howard was relatively young and fit the canon better than the more famous Rathbone. Crawford was into middle age but played Watson as an intelligent man, not the blithering idiot that Nigel Bruce did.

Most of the episodes were pastiches but some were based on canon stories, however loosely. Interestingly there was some continuity between episodes when characters referred back to previous events. That was unusual for the times, as most television show episodes were zero-reset.

The episodes are in the public domain and therefore available in several different DVD box sets. The episodes I’ll cite here are from the set issued by the St. Clair Entertainment Group, “Ultimate Sherlock Holmes TV”.

“The Case Of The Careless Suffragette” aired on 1955-02-28, and was written by Charles and Joseph Early. Holmes and Watson were strolling home one day when they saw a small crowd gathered around the entrance to 221B Baker Street.

A suffragette Doreen Meredith had chained herself to the railing in protest against Thomas Pimpleton, Member of Parliament, who lived adjacent. She was hoping to be arrested but Holmes picked the lock and invited her inside.

Accompanying her was fiance Henry Travers, who happened to be personal secretary to Pimpleton and was second in line to the Pimpleton estate. To intertwine characters even further, the local suffragists committee to which Meredith belonged was chaired by Pimpleton’s cousin Agatha.

In conversation over tea, Meredith told Holmes that she had purchased a small bomb from an anarchist Boris Turgoff. She intended to use it to blow up one of the lions in Trafalgar Square. It was packed inside a croquet ball. Not long after, Pimpleton suddenly departed this world while practicing croquet in his back yard.

The poor man never got a speaking part, but the smoking crater where he had swung his last mallet was depicted. Lestrade, Holmes, and Watson stood about the hole and concluded there must have been a second croquet bomb. Turgoff admitted he had made two such bombs.

Lestrade held a J’accuse! meeting in his office with all the principal characters present. After he accused the wrong person on the grounds of suffragist politics, Holmes tagged the real culprit. Agatha was next in line for the family fortune and had bought the second croquet bomb to speed up her inheritance.

“The Case Of The Reluctant Carpenter” was written by Sheldon Reynolds and aired on 1955-03-07. The case opened with an arson that destroyed a building with a bomb. Bystanders saw a man running away from the blaze, who then collapsed and died from multiple stab wounds.

Inspector Lestrade called in Holmes and Watson to analyze some mud found on the dead man’s boots. Yes, the police had their own forensic laboratory, but they had a backlog and analysis would be weeks away. Lestrade and Sergeant Wilkins called at 221B but Holmes and Watson weren’t home and had left their door unlocked.

Lestrade surmised they wouldn’t have done that if they were going to be away for long. He and Wilkins made themselves at home, unaware that Holmes and Watson were watching 221B from across the street. Holmes had received a credible death threat, so he rented a room looking onto 221B. With Watson, he set up surveillance, hoping to spot the threatener.

Lestrade and Wilkins decided to analyze the mud sample themselves, using Holmes’ chemistry workbench. As they did so, the threatener arrived. The duo were in shirt sleeves, so the man thought they were Holmes and Watson.

They played along, and he told them there would be more fires unless the government paid £50,000. The next blast would be at 18h00 that day as a warning. Say the £ was worth about \$5 in those days, then multiply by 100 to allow for the depreciation of currency since then due to inflation. Big money.

The real Holmes and Watson watched from across the street. After the man left, Watson trailed him while Holmes went over to talk to Lestrade and Wilkins. In the meantime, Watson followed the man to an address, then saw him shot dead in the doorway by an unknown assailant who escaped.

The second victim had the same sort of mud on his shoes as the first one. Analysis located the source, a munitions storage depot. Holmes, Watson, Lestrade, Wilkins, and a bevy of constables surrounded the place.

There were three carpenters working inside in a shop. One of them said they were just about to go off work, it being 17h00. Holmes and Lestrade begged to differ and said they would hold them until 18h00, correctly surmising that one of them was the bomber, who would place his bomb on his way home.

Psychological warfare ensued. The carpenters protested but two of them quieted down when Lestrade promised them an hour’s overtime pay. The third man remained silent but became increasingly nervous as the clock neared the next hour.

He finally broke and told them where the bomb was hidden in the shop. The device was rushed out to an open area where it exploded harmlessly. The bomber had killed his two accomplices to cover his trail. The mud would hang him.

Recordings.

I never bothered much with collecting Sherlock Holmes on cassettes because they were only performances of the canon stories which I had in print. Somewhere along the way I picked up these cassettes, probably in bargain bins.

The top cassette was dated 1980 and was an air check of a 1943 radio show. Nowadays those old shows are available as free mp3s from the Old Time Radio Researchers at www.otrr.org/OTRRLibrary. The two Durkin Hayes cassettes were 1997 and 1998, with original casts.



Pastiches: Crossovers.

SHERLOCK HOLMES: FURTHER ADVENTURES IN THE REALMS OF H.G. WELLS (2021) was a two-volume anthology edited by C. Edward Davis and Derrick Belanger. The premise of these pastiches is obvious from the title. Doyle and Wells were friends whose lives overlapped, so there is no reason why their characters shouldn't overlap. I'll review a few of these crossover stories.

From Volume 1, "The Case Of The Lunarnaut" by C. Edward Davis concerned an elaborate fraud run by a con man named Bedford, alias many other names. He latched on to Professor Lionel Cavor, who claimed to have an antigravity method to reach the moon.

No such thing, but Bedford used his claim to bilk investors. He then murdered Cavor in a staged accident that looked as if a spaceship had launched to the Moon. From there followed many twists and turns.

Sherlock Holmes and Dr Watson were called in by Cavor's nephews. Bedford was a slippery eel and escaped to Colorado. He tried the same fraud there about lunar gold.

Anyone familiar with the history of the American Rocky Mountains will know how the miners dispensed justice out west. Bedford took the easy way and pleaded guilty in court, lest the miners come after him.

"The Problem Of The Weedy Wanderer" by Will Murray took place after Sherlock Holmes had retired to beekeeping in the South Downs. The story was written as an exchange of letters between himself and his brother Mycroft.

Sherlock had noticed a resurgence of the red weed that had accompanied the Martian invasion. He also discovered a strange creature, not a Martian but a biped they used as a food source.

The question, never resolved, was whether the Martians had returned, this time to the ocean depths. They might be lurking down there, building up their resistance to Earth bacteria and planning a new invasion after learning from their mistakes in the first one.

"The Mark Of The Beast" by Michael Siverling was set in the aftermath of the Martian invasion. Invisible men and Moreau's beasts were scattered through

London, trying to make a living as best they could. They had been recruited to fight the Martians, then abandoned after the crisis passed.

A panther man named Tybalt had been accused of murder. Holmes, Watson, and an invisible man worked to prove Tybalt was innocent. They eventually identified the culprit as a giant rat, another of Moreau's experiments, and lately from Sumatra.

From Volume 2 came "The Unsolvables Case Of The Invisible Man" by Ronald A. Rowe and Eric M. Blake. Griffin, the original invisible man, was dead but his notebooks were in the hands of his assistant Thomas Marvel.

The problem was the notebooks were in code and Marvel couldn't decrypt them. He hired Holmes to transcribe them but the great detective couldn't read them either. Marvel thought Holmes was lying and meant to kill him.

Suspecting as much, Holmes arranged for his brother Mycroft to send in the Victorian equivalent of men in black to neutralize Marvel. The information in the notebooks would be transcribed for Queen and country.

"The Missing Time Machine" by Joseph Svec III was written in the form of letters between the Holmes brothers and from H.G. Wells to Holmes. The author had actually created a real time machine but after using it decided to dismantle the device and store it in a garden shed.

Wells wrote up his experiences as fiction. Someone stole the crated parts of the machine but only for a display in an art exhibit. Sherlock recovered the device. Mycroft got the shivers over it but his brother convinced him the machine was only a sham. Once more the Empire was saved.

"Sir Arthur And The Time Machine" by Gretchen Altabef was an interesting psychological study of why Doyle killed off Holmes. Doyle's wife was dying of tuberculosis, for which there was no cure in his time. Frantic with worry, he borrowed H.G. Wells' time machine and went searching into the future for a cure.

To sum up, these two volumes were fairly good reading. There was a preponderance of pastiches about time machines, invisible men, Moreauan creatures, and Martian invasions. It would have been nice to see pastiches on some of Wells' lesser remembered science fiction.

Marginalia.

WATSON'S CHOICE was a 1955 novel by Gladys Mitchell, reprinted in 2011. This book was part of a series about amateur detectives Mrs Lestrangle Bradley and her secretary Laura Menzies. Laura's beau was Detective-Inspector Robert Gavin.

The three were invited by Sir Bohun Chantrey to a party at which everyone would be dressed like a character from the Sherlock Holmes canon. There was a competition to identify objects mentioned in the canon, including a large dog covered in phosphorescent paint. Sir Bohun hadn't thought of a hound but no one admitted bringing it.

Sir Bohun (pronounced 'boon', as the reader was told) had wealth and enough people angry at him. Contrary to the reader's expectations, nobody died at the party. Throughout the novel the characters were busy one-upping each other with Sherlockian references.

Subsequently the governess Linda Campbell disappeared for a few days, then returned saying she had been kidnapped. Thereafter Sir Bohun announced his engagement to her.

She did not long survive. By now, the book was half done before the corpse, hers, arrived. The dog qua Hound of Baskerville reappeared at intervals in the plot. The culminating incident was the arrival of a bust of Napoleon, an obvious reference to a canon story. The divergence was that this bust contained a bomb.

Sir Bohun's secretary Bell fled when no one pursued, giving him away as the murderer. In the denouement, the revelation was that Bell had been seduced by Linda, then enraged when she dumped him in favour of Sir Bohun.

ALL THAT GLISTERS: PART 5

by Dale Speirs

[Parts 1 to 4 appeared in OPUNTIA's #324, 362, 471, and 493.]

Short Stories.

“The Klearbrook Gold Rush” by Randolph Bartlett (1910 August, THE BLACK CAT, available as a free pdf from www.archive.org) was about a real estate agent James Wilkins who had a problem.

He had surveyed a subdivision only a mile from the railroad track which he thought would appeal to city slickers yearning for the country life. Formerly known as Mud Creek, it was renamed Klearbrook.

Pause for digression. This brought to my mind a village south of Calgary originally named Mosquito Creek. The settlement was renamed Nanton after the developer who promoted it. The settlers all agreed the village wasn't going to prosper with the original name.

Even funnier was that the creek itself retained its original name and is still known as Mosquito but another creek it intersected with at the townsite had been called Shit Creek. I am not making that up.

In pioneer days, some freighters with an oxen team camped there overnight. The baked bean stew they had for supper was off, and it was a couple of days before they could safely move again. That stream was later renamed Nanton Creek.

Meanwhile, back at the story. Unfortunately customers didn't yearn to live in Klearbrook. Wilkins was stuck with hundreds of undeveloped lots. He got to thinking and devised a plan.

When a rare customer showed up, Wilkins took him on the grand tour. In the centre a tent was pitched and a big grizzly man sat there. Wilkins challenged him. The man said he had discovered gold on the land and was waiting for his claim to be approved. The prospector then ran off Wilkins and the customer with a shotgun.

Pause for explanation. In western Canada and the USA, mineral rights are separate from the land title. When the land was surveyed, they went together, but smarter families kept the mineral rights when they sold their land.

As an example, I and other members of my mother's family are paid monthly royalty payments by petroleum companies from my maternal great-grandparents' homestead. The farm was sold after Granduncle Eddie died and no one wanted to take it over. The new owner got the land title but the family kept the mineral rights for a steady stream of income.

Miners and oil companies have to pay surface rights to the land title owner, which is the cost of renting sufficient land to dig or drill, plus they have to compensate for damages done.

In cities, mineral rights holders could hypothetically dig or drill underneath your house but can't because they have to comply with municipal bylaws restricting industrial activity in residential neighbourhoods.

Meanwhile, back at the story, word got out about Wilkins' problem. He was quickly swamped by people waving cash at him. None of them understood the realities of gold mining. They thought they would be getting mineral rights with the land title. Those in the know realized the geological structure of the area couldn't possibly support a gold mine.

After the last lot was sold, Wilkins and the prospector, a fellow real estate agent, took the money and ran. They committed no crime because the lots were sold as is at the previous regular price, with no promise about gold.

Old-Time Radio.

THE HERMIT'S CAVE was an anthology weird fiction radio series that first began airing in 1937 September until circa 1944. There were 800 episodes but only a few dozen have been preserved. Writers were not credited. Available as free mp3s from the Old Time Radio Researchers website at www.otrr.org/OTRRLibrary.

The stories were introduced by the Hermit, who giggled as he introduced the episodes. A poor man's creaking door, you might say. Lots of wolves howling in the background.

This was an unusual syndicated series. Instead of selling disks of episodes to be played on the air by independent radio stations, scripts were sold. Each station then produced the episodes with local actors. A few transcribed them to disks and some fans recorded them off the air with wire recorders.

“Reflected Image” began with two men, Dan and Hailey, lost in the desert. Their water ran out under the blazing sun. Hailey went loco and saw a woman beckoning him on to a cabin where there was water. Dan humoured him and eventually they did find such a cabin.

A man in the cabin, named Fred, said there was no woman there. He gave them water, put them up for the night, and in the evening told them a ghost story.

Fred and his partner had struck it rich prospecting for gold. He sent for his girlfriend Lyla but after a while the primitive living conditions were too much for her. She tried to run off with his partner but Fred killed him.

Fred made her dig the grave, then work for him mining the gold. She came down with fever and stumbled out into the desert, never to be seen again. Fred stayed in the cabin as a hermit, moiling for gold.

The story finished and a moment later Lyla’s ghost was heard laughing. Dan stated the obvious and said it was her who led them there. She came for Fred, shot him dead, then vanished.

Dan and Hailey were afraid they would be accused of Fred’s murder. They fled to the nearest town. The sheriff told them Fred died of fever twenty years ago with his wife. Thar warn’t no such cabin, he told the pair, but solaced them by saying others had told the story to him.

The three men went back to the site. No cabin, but they began digging and found the gold buried where it had once been.

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.

This series was a star vehicle for Humphrey Bogart and 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 Man From Sumatra” aired on 1952-02-25. (It also circulates as “Return To Civilization”) George Carson returned to Cuba from gold hunting in the Sumatran jungles. He was an old friend of Slate Shannon and told him that the gold wasn’t there.

Unfortunately Carson had prematurely bragged about finding a mountain of gold before the assay results came back negative. He was promptly shot dead on the beaches of Havana by someone who thought he was holding out on the real gold deposit.

Shannon and **Sailor Duval** were visited by a Sumatran native named **Subi** who tried to kill him. The police were no help. Carson’s girlfriend blamed Shannon for the murder. She went hunting for others, trying to get the location of the mountain of gold.

King Moses then summarized the plot in calypso song. After he finished, the characters continued to exhibit vexatious behaviour. Shannon survived various knife wounds, gunshots, and car hit-and-runs. **Subi**, who was only a bit player, didn’t.

The denouement was a grand meeting of all the culprits. Shots were fired and the meeting quickly lost its quorum. If there really was any gold in Sumatra, no survivor would ever know.

BOTANICAL FICTION: PART 16

by Dale Speirs

[Parts 1 to 15 appeared in OPUNTIA's #316, 317, 320, 323, 325, 334, 369, 380, 402, 412, 438, 459, 476, 506, and 519.]

Carnivorous Plants.

Man-eating trees have long been a staple of adventure fiction. “The Seed From The Sepulcher” (1933 October, WEIRD TALES) by Clark Ashton Smith began in the Amazon jungles. An orchid hunter got more than he bargained for in a cavern where he found a carnivorous plant that fed on trapped humans.

He managed to escape but not before a spore pod broke open and dusted his head. Back in the jungle he sickened as the plant spores grew within him and consumed his body. His partner made the mistake of touching the body.

A modern example was “Shooting At Warner’s Bay” by Michele Laframboise (2021 Sep/Oct, ASIMOV’S). A film crew was shooting a movie on a tropical island. They got more action adventure than the script called for.

Roots came out of the ground and wrapped themselves around ankles. Drooping palms didn’t just droop their leaves because of drought. They were snatching up prey. Finally the entire crew and cast had to run for their ship when an entire forest came after them en masse.

“The Cult Of The Orchid” by Mike Adamson appeared in SHERLOCK HOLMES: FURTHER ADVENTURES IN THE REALMS OF H.G. WELLS, Volume 1 (2021), an anthology edited by C. Edward Davis and Derrick Belanger. The title says it all about these pastiches.

Holmes and Watson were called out to the countryside to investigate a mad botanist Morris Carrow, who specialized in a carnivorous orchid. Farm folk were mysteriously disappearing, and the suspicion was they were kidnapped and fed to the orchid.

The plant gave off a narcotic scent that attracted animals and humans. The fumes caused them to pass out beside the orchid, which then grew its roots into the victims and sucked them dry.

Carrow was force-feeding the orchid to see what it would do with unlimited blood. The answer was the plant grew into a tree, at which point it needed to feed on whole livestock or humans.

The next step never happened, as Holmes and Watson stymied Carrow by shattering the hothouse glass. The orchid was killed by the inrush of cold British air. Justice was served as a breath of fresh air.

Send Me No Flowers.

“Lost In A Pyramid, Or The Mummy’s Curse” (1869) by Louisa May Alcott was from the anthology WEIRD WOMEN (2020), edited by Lisa Morton and Leslie S. Klinger. The title pretty much explained the plot. Alcott wrote horror stories deemed too sensational for publication but did get this story printed under her initials.

Professor Niles and his young assistant Paul Forsyth were exploring one of the pyramids when they became lost in its interior. They weren’t too lost to ignore a woman’s mummy and loot it of gems, gold, and for scientific purposes only, some ancient flower seeds.

Eventually Forsyth and Niles returned home. The seeds were grown by Forsyth’s wife Evelyn. The plant had green leaves on a purple stem. The flower was white, shaped like a hooded snake, with scarlet stamens protruding, and glistening sap on the petals.

The bloom was, to no reader’s surprise, poisonous. Evelyn wore the flower as a corsage, which then sucked the life from her.

“Strange Orchids” by Dorothy Quick (1937 March, WEIRD TALES) introduced mad scientist Angus O’Malley who bred a parasitic type of orchid. He kidnapped nubile young women and let the orchid have its way with them.

The flowers would then have the colouring of the woman’s hair and skin complexion, and trap her spirit inside the blossom. The plot was predictable, as the final woman snatched was rescued in the nick of time instead of being converted into a sentient flower.

From that same issue of WEIRD TALES was “The Seeds From Outside” by Edmond Hamilton. A recluse named Standifer found a meteorite freshly fallen

on his land. It proved to contain two seeds, which he planted in his garden. The plants grew but when the flowers opened, each had a small humanoid, a male and a female.

Standifer was smitten by the female humanoid and as it grew, he petted her hair and caressed her. One day he came home to discover the male plant had uprooted itself and killed her in a fit of jealousy. In a equal fit of anger, Standifer killed the male plant, and so ended the alien colonization scheme.

“Vallisneria Madness” by Ralph Milne Farley (1937 May, WEIRD TALES, available as a free pdf from www.archive.org) caught my eye because I used to grow vallisnerias several decades ago. I was actively involved in the aquarium hobby in the 1980s and 1990s. These plants are standard for aquascaping an aquarium.

But not the ones in this story. The description of the flowering process, while physically accurate, was embellished in greatly exaggerated anthropomorphism. Nor is the process as rare as implied.

The genus *Vallisneria* is dioecious, meaning the male flowers and female flowers are on separate plants. The female flowers extend above the water. The male flowers are on short underwater stems. The male flowers break off and float to the surface to do their duty.

Professor Gordon had a palatial mansion, as stated in the very first sentence of this story, with a garden to match, including an aquatic pond. He invited one of his students Tom Spencer to watch one night as the vallisnerias mated. Just before the excitement began, Gordon excused himself but bade Spencer to stay. Just don’t go too near the edge of the pond, he warned.

A mist formed over the pond, from which rose not flowers but beautiful women. Then the men rose up but only their heads. Mating was done by a kiss, then the men shriveled away. One woman was unaccounted for, so she beckoned Spencer. Intoxicated by her pheromones, he waded out into the pond.

No, his head wasn’t ripped off. The woman was the Professor’s beautiful daughter, who didn’t half fancy him.

FINANCIAL FICTION: PART 6
by Dale Speirs

[Parts 1 to 5 appeared in OPUNTIA’s #444, 461, 488, 504, and 523.]

Take The Money And Run.

“The Fire Of London” (1904) by Arnold Bennett was anthologized in THE BIG BOOK OF ROGUES AND VILLAINS (2017), edited by Otto Penzler. Bruce Bowring was a conjuror in mining company shares. He was about to skip town as his company collapsed, taking with him £60,000 in cash. (Say about \$6 million in today’s depreciated currency.)

He ran afoul of a blackmailer named Thorold. The plot took a right-turn when Thorold’s accomplices taunted him just before the splitting of the £10,000 they had taken off Bowring. They ought not to have done that. Thorold replied by tossing the banknotes into the fireplace.

Go, Johnny, Go.

YOURS TRULY, JOHNNY DOLLAR was the second-last of the old-time radio series, airing from 1949 to 1962. Episodes are available as free mp3s from www.otrr.org/OTRRLibrary

Johnny Dollar was an insurance investigator based in Hartford, Connecticut. Each episode began with a claims adjustor from an insurance company ringing him up and asking him to take on a case.

“The Phantom Chase Matter” aired in middle October, 1956 and was written by Robert Ryf. This was an unusual nine-chapter episode. Thomas Chase was a partner in a brokerage Emerson and Chase. Thomas came up short \$120,000 in his accounts. Call it 1.2 million in today’s currency. He jumped bail and Johnny Dollar was called in by the insurance company to find him.

Dollar’s first stop was to visit Chase’s wife Lola. She had been shocked by Thomas’ sudden defalcation. She said he had been moody and out of sorts. Emerson had one suggestion that Thomas might have skipped to New Orleans, so away went Dollar.

The tip paid off. Dollar didn't actually find Thomas but got solid proof he was in town under an assumed name. Lola arrived the next day after the insurance broker updated her about the matter.

The two went around the jazz bars. An informer offered to bring Thomas to a midnight rendezvous. (In detective fiction nobody ever meets at lunch hour.) The meet didn't happen because the informer was murdered in the back alley behind the jazz bar.

The NOPD homicide squad was most interested. Dollar sent Lola back to New York City. Much to-ing and fro-ing about New Orleans as clues were accumulated. The motive appeared to be another woman. Thomas looked to be jumping town on a ship for Trinidad via Cuba and Haiti. Dollar hared off to the Caribbean via airplane, zigzagging to Barbados.

On the island, Dollar was approached by a young woman Connie. She was a false lead but did give Dollar some more clues. Lola arrived on Barbados to complicate the matter. Various alarums and excursions followed.

An idiot plot kicked in which sent Dollar out to a deserted island. Lola stowed away on his boat. Dollar suspected a trap but knowingly blundered into it nonetheless. Thomas was indeed there and stole the boat, stranding the two on the island.

The police rescued the pair. The action returned to the main island. Thomas was tracked to a hotel room but escaped again. With 20 minutes left in the 135-minute episode, Thomas finally got a speaking part when he ambushed Dollar.

Since Dollar was booked for the series there was no suspense about him surviving. Thomas was tired of running but instead of killing Dollar, he only slugged him unconscious, then fled. That baffled Dollar. The pursuit continued out into the hills. Thomas had dived off a cliff. The only loose end was where he hid the money.

The twist ending was that Lola and Chase's business partner Emerson had faked the whole thing. The real Thomas was long dead and the man Dollar was chasing was a ringer. Emerson had the money in New York City, and Thomas was buried in the wilds of Long Island.

Counterfeiting.

Every country, whether democracy or dictatorship, enforces two sets of laws more strongly than any other legislation, to wit, taxes and counterfeiting. No nation can survive if its economy is ruined by fake currency.

THE SHADOW, as the opening blurb put it, was in reality Lamont Cranston, wealthy young man about town. He had traveled to Tibet where he learned how to cloud minds so that people could not see him, only hear him.

Lamont Cranston and The Shadow both dealt with Police Commissioner Weston but not simultaneously of course. Weston was usually the arresting officer and frequently worked without any uniformed officers present.

The lovely Margo Lane was the only one who knew his real identity. Her main functions were to scream every time she saw a corpse, be frequently kidnapped or trapped with a killer, and to have the loose threads explained to her in the denouement.

Like the print stories, credit was seldom given to writers. Sometimes a house name was credited, but usually nothing was said in the closing credits about who the writer was. Never expect logical plots.

"The League Of Terror" aired on 1938-01-09. A counterfeiting gang was flooding the city with bogus notes. A shopkeeper was cited for contempt of court for refusing to testify against the lower-level members of the gang for fear of retaliation and sent to jail as a hostile witness.

Lamont Cranston heard the story and decided to help the shopkeeper's wife, using her as bait to bring out Mr Big. Many alarums after the henchmen grabbed the woman when she hinted she knew about Mr Big.

Hundreds of thousands of fake bills were at stake. Bear in mind that \$100,000 in 1938 currency would be about \$10,000,000 in today's depreciated currency. The Shadow was out and about, trying to bluff his way past the crooks to Mr Big. Since he was the star of the series, the outcome was not in doubt.

And so, once again, or at least until the next time counterfeiting was used for the plot, the country was safe from those who would debase the currency. Only central banks are allowed to do that.

SEEN IN THE LITERATURE

Astronomy.

Troja, E., et al (2022) **A nearby long gamma-ray burst from a merger of compact objects.** NATURE 612:doi.org/10.1038/s41586-022-05327-3 (available as a free pdf)

[A kilonova is a collision between two neutron stars, during which heavy elements such as gold are formed.]

Authors’ abstract: *Gamma-ray bursts (GRBs) are flashes of high-energy radiation arising from energetic cosmic explosions. Bursts of long (greater than two seconds) duration are produced by the core-collapse of massive stars, and those of short (less than two seconds) duration by the merger of compact objects, such as two neutron stars.*

A third class of events with hybrid high-energy properties was identified, but never conclusively linked to a stellar progenitor. The lack of bright supernovae rules out typical core-collapse explosions, but their distance scales prevent sensitive searches for direct signatures of a progenitor system. Only tentative evidence for a kilonova has been presented.

Here we report observations of the exceptionally bright GRB 211211A, which classify it as a hybrid event and constrain its distance scale to only 346 megaparsecs.

Our measurements indicate that its lower-energy (from ultraviolet to near-infrared) counterpart is powered by a luminous (approximately 1042 erg per second) kilonova possibly formed in the ejecta of a compact object merger.

El-Badry, K., et al (2022) **A Sun-like star orbiting a black hole.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 518:doi.org/10.1093/mnras/stac3140

Authors’ abstract: *We report discovery of a bright, nearby ($G = 13.8$; $d = 480$ parsecs) Sun-like star orbiting a dark object. We identified the system as a black hole candidate via its astrometric orbital solution from the Gaia mission.*

Radial velocities validated and refined the Gaia solution, and spectroscopy ruled out significant light contributions from another star. Joint modelling of radial velocities and astrometry constrains the companion mass of 9.62 solar masses.

The spectroscopic orbit alone sets a minimum companion mass of >5 masses. If the companion were a star, it would be 500 times more luminous than the entire system.

These constraints are insensitive to the mass of the luminous star, which appears as a slowly rotating G dwarf), with near-solar metallicity and an unremarkable abundance pattern.

We find no plausible astrophysical scenario that can explain the orbit and does not involve a black hole. The orbital period, $P_{\text{orb}} = 185.6$ days, is longer than that of any known stellar-mass black hole binary.

The system’s modest eccentricity ($e = 0.45$), high metallicity, and thin-disc Galactic orbit suggest that it was born in the Milky Way disc with at most a weak natal kick. How the system formed is uncertain.

Common envelope evolution can only produce the system’s wide orbit under extreme and likely unphysical assumptions. Formation models involving triples or dynamical assembly in an open cluster may be more promising.

This is the nearest known black hole by a factor of 3, and its discovery suggests the existence of a sizable population of dormant black holes in binaries. Future Gaia releases will likely facilitate the discovery of dozens more.

Geology.

Pu, J.P., et al (2022) **Emplacement of the Franklin large igneous province and initiation of the Sturtian Snowball Earth.** SCIENCE ADVANCES 8:doi.org/10.1126/sciadv.adc9430 (available as a free pdf)

[720 megayears ago, Earth froze over almost solid except for a narrow band around the equator due to too much CO₂ being locked up.]

Authors’ abstract: *During the Cryogenian (720 to 635 megayears ago) Snowball Earth glaciations, ice extended to sea level near the equator.*

The cause of this catastrophic failure of Earth’s thermostat has been unclear, but previous geochronology has suggested a rough coincidence of glacial onset with one of the largest magmatic episodes in the geological record, the Franklin large igneous province.

U-Pb geochronology on zircon and baddeleyite from sills associated with the paleo-equatorial Franklin large igneous province in Arctic Canada record rapid emplacement between 719.86 ± 0.21 and 718.61 ± 0.30 Ma ago, 0.9 to 1.6 Ma before the onset of widespread glaciation.

Geologic observations and (U-Th)/He dates on Franklin sills are compatible with major post-Franklin exhumation, possibly due to development of mafic volcanic highlands on windward equatorial Laurentia and increased global weatherability.

After a transient magmatic CO₂ flux, long-term carbon sequestration associated with increased weatherability could have nudged Earth over the threshold for runaway ice-albedo feedback.

Paleobiology.

Bobrovskiy, I., et al (2022) **Guts, gut contents, and feeding strategies of Ediacaran animals.** CURRENT BIOLOGY 32:doi.org/10.1016/j.cub.2022.10.051

[The Ediacaran era was 600 to 542 megayears ago, when the first multicellular life forms appeared.]

Authors’ abstract: *The oldest animals appear in the fossil record among Ediacara biota communities. They prelude animal-dominated ecosystems of the Phanerozoic and may hold clues to the appearance of modern animal phyla in the Cambrian explosion. However, little is known about the phylogeny of the Ediacaran organisms and even less about their diet and feeding behavior.*

An exception is mollusc-like Kimberella, for which a fossilized gut, feeding traces, and even potential coprolites have been found. By contrast, Ediacaran organic-walled tubes, such as Sabellidites and Calyptrina, are thought to belong to tube worms comparable with modern Siboglinidae that have no gut but gain their nutrition from symbiotic bacteria.

Here, we examine the gut contents of Ediacaran animals using biomarker molecules. We show that 558-million-year (Ma)-old tube worm-like Calyptrina and mollusc-like Kimberella possessed a gut and shared a diet of green algae and bacteria.

Despite their ancient age, sterol metabolism within the gut of both organisms was already comparable to extant invertebrates.

Dickinsonia, one of the key Ediacaran animals, show no traces of dietary molecules, indicating a different feeding mode and possible external digestion analogous to modern Placozoa.

Lipid biomarkers uncover a range of feeding strategies in Ediacaran communities, highlighting true eumetazoan physiology of some Ediacaran animals.

Authors' abstract: *Endophytic oviposition behavior, the insertion of eggs into plant tissues, represents a sophisticated reproductive strategy of insects. This process is accomplished by employing a specialized egg-laying device, the ovipositor, that effectively protects eggs through plant tissue concealment.*

Endophytic oviposition behavior is currently common in many lineages of several major, extant insect orders, principally Odonata (dragonflies and damselflies), Orthoptera (katydids and grasshoppers), Hemiptera (cicadas, aphids, scale insects, whiteflies, leafhoppers, and bugs), Coleoptera (beetles), Lepidoptera (moths), and Hymenoptera (sawflies).

Based on the occurrences of egg insertion damage and associated scar tissue expressed in fossil plant stems and leaves, endophytic ovipositional behavior is presumed to have emerged as early as the Early Pennsylvanian Period.

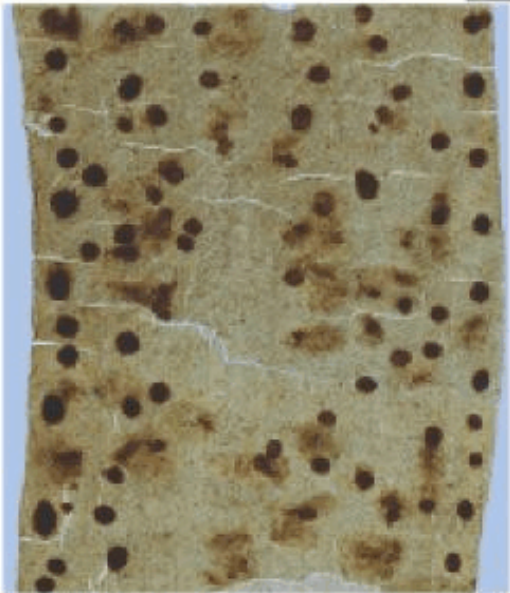
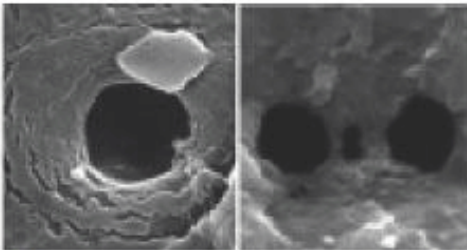
However, for impression fossils, egg morphology and surrounding scar tissue can be difficult to discern on plants, often resulting in ovipositional damage that may be assigned to exophytic (eggs laid on plant surfaces) or to endophytic behavior.

This ambiguity is due to the spatial relationships and histological mingling of ovipositional damage and enveloping scars with adjoining plant-host tissues. Here, we describe body fossils of insect eggs within ginkgophyte leaves from the Upper Triassic of China.

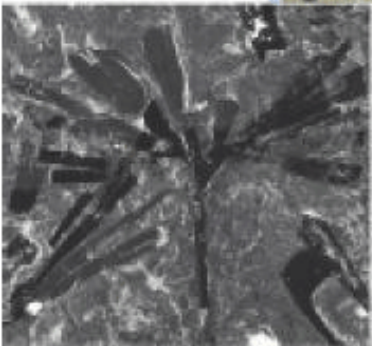
Feeding damage from an egg-predatory insect commonly occurs on these eggs, as some eggs bear up to several feeding punctures. We provide exceptional body-fossil evidence for resource use of a host plant by an ovipositing insect and unravel the earliest-known tritrophic cascade of a host plant, an ovipositing insect, and an egg-predatory insect.

[Images are from this paper.]

Eggs are commonly attacked by an egg-predatory insect



Body-fossil insect eggs are longitudinally present between the upper and lower cuticles



Late Triassic host plant:
Baiera multipartita Sze et Lee

Whiteside, D.L., et al (2022) **A Triassic crown squamate.** SCIENCE ADVANCES 8:doi.org/10.1126/sciadv.abq8274 (available as a free pdf)

Authors’ abstract: *Mammals, birds, and squamates (lizards, snakes, and relatives) are key living vertebrates, and thus understanding their evolution underpins important questions in biodiversity science. Whereas the origins of mammals and birds are relatively well understood, the roots of squamates have been obscure.*

Here, we report a modern-type lizard from the Late Triassic of England [202 million years (Ma)], comprising a partial skeleton, skull, and mandibles. It displays at least 15 unique squamate traits and further shares unidentatan and anguimorph apomorphies.

The new discovery fixes the origin of crown Squamata as much older than had been thought, and the revised dating shows substantial diversification of modern-type squamates following the Carnian Pluvial Episode, 232 Ma ago.

[Image of *Cryptovaranoidea microlanius*, the Triassic squamate, is from this paper.]



Bueno de Souza, R.B., and W. Klein (2022) **Modeling of the respiratory system of the long-necked Triassic reptile Tanystropheus (Archosauromorpha).** THE SCIENCE OF NATURE 109:doi.org/10.1007/s00114-022-01824-7

Authors’ abstract: *All known species of the Triassic archosauromorph genus Tanystropheus are known to have had the longest neck in proportion to their torso. This feature is related to a series of ventilatory challenges since an increase in neck length also increases airway length and, therefore, the volume of stagnant air that does not reach the lungs, the dead space volume.*



Based on this challenge, the objective of the present study was to model the type of respiratory system of Tanystropheus able to meet its metabolic demands during the early Triassic period. Allometric modeling suggested that the respiratory system best suited to Tanystropheus’ oxygen demands, especially during activity, would be a generic reptilian-like respiratory system composed of multicameral lungs.

The best respiratory pattern to maintain adequate tracheal flow rates and effective pulmonary ventilation would be one ventilating the relatively narrower trachea at lower frequencies to deal with tracheal dead space volume.

[Image is from Wikipedia.]

Castillo-Visa, O., et al (2022) **A gigantic bizarre marine turtle (Testudines: Chelonioida) from the Middle Campanian (Late Cretaceous) of southwestern Europe.** SCIENTIFIC REPORTS 12:doi.org/10.1038/s41598-022-22619-w (available as a free pdf)

Authors’ abstract: *Marine turtles were common in the subtropical Upper Cretaceous epi-continental seas that once washed the coasts of the ancient European archipelago. But unlike its contemporaneous faunas from North America, in Europe no taxon surpassed the 1.5 metre shell-length.*

Here, the remains of a new large marine turtle, Leviathanochelys aenigmatica gen. et sp. nov., from the Middle Campanian of the Southern Pyrenees are described. Anatomical and histological evidence concur in identifying the specimen as a basal chelonioid.

The new taxon autapomorphically differs from other marine turtles by possessing an additional process on the anteromedial side of the pelvis, and an acetabulum directed strongly ventrally. Based on the pelvis size, it is likely that Leviathanochelys was as large as Archelon, thus becoming one of the largest marine turtles found to ever exist.

The large body size of the new taxon could have evolved as a response to the unique habitat conditions of the European Cretaceous archipelago seas. The presence of the accessory pubic process further suggests the occurrence of an additional insertion point of the Musculus rectus abdominis, which together with the paleohistologic evidences support the hypothesis that the new taxon had an open marine pelagic lifestyle.

Chuliver, M., et al (2022) **Live birth in a 47-million-year-old snake.** THE SCIENCE OF NATURE 109:doi.org/10.1007/s00114-022-01828-3

Authors’ abstract: *Viviparity is a widespread reproductive trait in snakes, although fossil evidence bearing on its evolution is extremely sparse. Here, we report an exceptional specimen of the minute booid snake Messelophis variatus recovered in the paleolake of the Messel Formation (early-middle Eocene, Germany).*

This gravid female contains at least two embryos located in the posterior third of the trunk region. The morphology, size, and degree of ossification of the

cranial and postcranial remains indicate they correspond with late embryos.

This specimen documents the first occurrence of viviparity in a fossil snake and extends the temporal distribution of this reproductive strategy in booid snakes by over 47 megayears.

The evolution of viviparity in squamates has traditionally been associated with cold climates, but its presence at the dawn of the evolution of booids during early Palaeogene thermal peaks indicates that viviparity may have evolved under different selective pressures in this clade.



[Images are from this paper.]



Kjær, K.H., et al (2022) **A 2-million-year-old ecosystem in Greenland uncovered by environmental DNA.** NATURE 612:doi.org/10.1038/s41586-022-05453-y (available as a free pdf)

Authors’ abstract: *Late Pliocene and Early Pleistocene epochs 3.6 to 0.8 million years ago had climates resembling those forecasted under future warming. Palaeoclimatic records show strong polar amplification with mean annual temperatures of 11 to 19 °C above contemporary values.*

The biological communities inhabiting the Arctic during this time remain poorly known because fossils are rare. Here we report an ancient environmental DNA (eDNA) record describing the rich plant and animal assemblages of the Kap København Formation in North Greenland, dated to around two million years ago.

The record shows an open boreal forest ecosystem with mixed vegetation of poplar, birch and thuja trees, as well as a variety of Arctic and boreal shrubs and herbs, many of which had not previously been detected at the site from macrofossil and pollen records.

The DNA record confirms the presence of hare and mitochondrial DNA from animals including mastodons, reindeer, rodents and geese, all ancestral to their present-day and late Pleistocene relatives.

The presence of marine species including horseshoe crab and green algae support a warmer climate than today. The reconstructed ecosystem has no modern analogue. The survival of such ancient eDNA probably relates to its binding to mineral surfaces.

Dinosaurs.

Lee, S., et al (2022) **A non-avian dinosaur with a streamlined body exhibits potential adaptations for swimming.** COMMUNICATIONS BIOLOGY 5:doi.org/10.1038/s42003-022-04119-9 (available as a free pdf)

Authors’ abstract: *Streamlining a body is a major adaptation for aquatic animals to move efficiently in the water. Whereas diving birds are well known to have streamlined bodies, such body shapes have not been documented in non-avian dinosaurs.*

It is primarily because most known non-avian theropods are terrestrial, barring a few exceptions. However, clear evidence of streamlined bodies is absent even in the purported semiaquatic groups.

Here we report a new theropod, Natovenator polydontus gen. et sp. nov., from the Upper Cretaceous of Mongolia. The new specimen includes a well-preserved skeleton with several articulated dorsal ribs that are posterolaterally oriented to streamline the body as in diving birds.

Additionally, the widely arched proximal rib shafts reflect a dorsoventrally compressed ribcage like aquatic reptiles. Its body shape suggests that Natovenator was a potentially capable swimming predator, and the streamlined body evolved independently in separate lineages of theropod dinosaurs.

[Image from this paper, showing a reconstruction of Natovenator polydontus.]



Zoology.

Tiller, L.N., et al (2022) **The behaviour and fate of translocated bull African savanna elephants (*Loxodonta africana*) into a novel environment.** AFRICAN JOURNAL OF ECOLOGY 60:doi.org/10.1111/aje.13038

Authors’ abstract: *Translocation of elephants is used to mitigate human-elephant conflict in Asia and Africa. However, few studies investigate how translocations affect the movements and social behaviour of individuals following their release, which may have important implications for whether translocated animals survive and succeed.*

*Using GPS-tracking data, we explored movements of five translocated bull elephants (*Loxodonta africana*) moved to Tsavo, Kenya, and compared them with five resident bull elephants. Position data was collected hourly for 1 year (March 2018 to March 2019), and analysed to investigate home range, displacement rates, problematic behaviour and group size.*

Of the five translocated elephants, three were illegally killed and one continued to break fences and raid crops. Only one elephant stayed away from human settlement.

We found group size and composition to be significantly different, with translocated elephants observed in smaller groups with no female elephant interactions. All elephants showed variation in home ranges and displacement rates, but differences were not significant between resident and translocated elephant groups.

For future translocations, we recommend careful consideration of elephant social systems, elephant age, timing, release site and proximity to human settlements that might create human-elephant conflict. This will improve chance for success of such high-stake and expensive translocations.

Swider, C.R., et al (2022) **Passive acoustic monitoring reveals behavioural response of African forest elephants to gunfire events.** AFRICAN JOURNAL OF ECOLOGY 60:doi.org/10.1111/aje.13070

Authors’ abstract: *African forest elephants (*Loxodonta cyclotis*) are a critically endangered and visually cryptic species that inhabits Central African*

rainforests. Using a 1250 sq-km grid of 50 acoustic sensors in Republic of Congo, we investigated the landscape scale behavioural response of forest elephants to poaching events.

We detected eight automatic weapon fire events over 1.5 years of recording (2017 to 2019). We examined detections of elephant vocalisations across grid sites within 10 km of the gunfire events in the 48 hours surrounding the gunfire, and in paired 48-hour control periods free of gunfire.

Fewer vocalisations were detected before gunfire events than during control periods, suggesting elephants show behavioural responses to poacher presence before any shots are fired.

Immediately following the gunfire events, a significant increase in elephant calls was detected, which may indicate increased communication to facilitate group cohesion and movement.

Elevated call levels dropped to lower-than-baseline rates after several hours, suggestive of a sustained response. These patterns indicate forest elephants respond to both poacher presence and to gunfire events themselves.

As these patterns may reflect behaviours that mediate population processes, conservation strategies should account for the potential of poaching to impact populations via indirect effects on non-target elephants in the area.

Schweinfurth, M.K., et al (2022) **Inter-individual coordination in walking chimpanzees.** CURRENT BIOLOGY 32:doi.org/10.1016/j.cub.2022.09.059 (available as a free pdf)

Authors’ abstract: *Humans, like many other animals, live in groups and coordinate actions with others in social settings. Such interpersonal coordination may emerge unconsciously and when the goal is not the coordination of movements, as when falling into the same rhythm when walking together.*

*Although one of our closest living relatives, the chimpanzee (*Pan troglodytes*), shows the ability to succeed in complex joint action tasks where coordination is the goal, little is known about simpler forms of joint action.*

Here, we examine whether chimpanzees spontaneously synchronize their actions with conspecifics while walking together. We collected data on individual walking behavior of two groups of chimpanzees under semi-natural conditions. In addition, we assessed social relationships to investigate potential effects on the strength of coordination.

When walking with a conspecific, individuals walked faster than when alone. The relative phase was symmetrically distributed around 0° with the highest frequencies around 0, indicating a tendency to coordinate actions.

Further, coordination was stronger when walking with a partner compared with two individuals walking independently. Although the inter-limb entrainment was more pronounced between individuals of similar age as a proxy for height, it was not affected by the kinship or bonding status of the walkers or the behaviors they engaged in immediately after the walk.

We conclude that chimpanzees adapt their individual behavior to temporally coordinate actions with others, which might provide a basis for engaging in other more complex forms of joint action. This spontaneous form of inter-individual coordination, often called entrainment, is thus shared with humans.

Environmental Science.

Sellitto, P., et al (2022) **The unexpected radiative impact of the Hunga Tonga eruption of 15th January 2022.** COMMUNICATIONS EARTH AND ENVIRONMENT 3:doi.org/10.1038/s43247-022-00618-z (available as a free pdf)

Authors’ abstract: The underwater Hunga Tonga-Hunga Ha-apai volcano erupted in the early hours of 15th January 2022, and injected volcanic gases and aerosols to over 50 km altitude.

Here we synthesise satellite, ground-based, in situ and radiosonde observations of the eruption to investigate the strength of the stratospheric aerosol and water vapour perturbations in the initial weeks after the eruption and we quantify the net radiative impact across the two species using offline radiative transfer modelling.

We find that the Hunga Tonga-Hunga Haapai eruption produced the largest global perturbation of stratospheric aerosols since the Pinatubo eruption in 1991 and the largest perturbation of stratospheric water vapour observed in the satellite era.

Immediately after the eruption, water vapour radiative cooling dominated the local stratospheric heating/cooling rates, while at the top-of-the-atmosphere and surface, volcanic aerosol cooling dominated the radiative forcing.

However, after two weeks, due to dispersion/dilution, water vapour heating started to dominate the top-of-the-atmosphere radiative forcing, leading to a net warming of the climate system.

Daewel, U., et al (2022) **Offshore wind farms are projected to impact primary production and bottom water deoxygenation in the North Sea.** COMMUNICATIONS EARTH AND ENVIRONMENT 3:doi.org/10.1038/s43247-022-00625-0 (available as a free pdf)

Authors’ abstract: The wind wake effect of offshore wind farms affects the hydrodynamical conditions in the ocean, which has been hypothesized to impact marine primary production. So far only little is known about the ecosystem response to wind wakes under the premisses of large offshore wind farm clusters.

Here we show, via numerical modeling, that the associated wind wakes in the North Sea provoke large-scale changes in annual primary production with local changes of up to ±10% not only at the offshore wind farm clusters, but also distributed over a wider region.

The model also projects an increase in sediment carbon in deeper areas of the southern North Sea due to reduced current velocities, and decreased dissolved oxygen inside an area with already low oxygen concentration.

Our results provide evidence that the ongoing offshore wind farm developments can have a substantial impact on the structuring of coastal marine ecosystems on basin scales.

Human Prehistory.

Zohar, I., et al (2022) **Evidence for the cooking of fish 780,000 years ago at Gesher Benot Ya’aqov, Israel.** NATURE ECOLOGY AND EVOLUTION 6:doi.org/10.1038/s41559-022-01910-z

Authors’ abstract: *Although cooking is regarded as a key element in the evolutionary success of the genus Homo, impacting various biological and social aspects, when intentional cooking first began remains unknown.*

The early Middle Pleistocene site of Gesher Benot Ya’aqov, Israel (marine isotope stages 18–20; ~0.78 million years ago), has preserved evidence of hearth-related hominin activities and large numbers of freshwater fish remains (>40,000).

A taphonomic study and isotopic analyses revealed significant differences between the characteristics of the fish bone assemblages recovered in eight sequential archaeological horizons of Area B (Layer II-6 levels 1–7) and natural fish bone assemblages (identified in Area A).

Gesher Benot Ya’aqov archaeological horizons II-6 L1–7 exhibited low fish species richness, with a clear preference for two species of large Cyprinidae (Luciobarbus longiceps and Carasobarbus canis) and the almost total absence of fish bones in contrast to the richness of pharyngeal teeth (>95%).

Most of the pharyngeal teeth recovered in archaeological horizons II-6 L1–7 were spatially associated with ‘phantom’ hearths (clusters of burnt flint microartifacts).

Size-strain analysis using X-ray powder diffraction provided evidence that these teeth had been exposed to low temperature (<500 °C), suggesting, together with the archaeological and taphonomic data, that the fish from the archaeological horizons of Area B had been cooked and consumed on site. This is the earliest evidence of cooking by hominins.

Barbieri, C., et al (2022) **A global analysis of matches and mismatches between human genetic and linguistic histories.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2122084119 (available as a free pdf)

Authors’ abstract: *To disentangle the patterns of demographic and cultural transmission, we need a global systematic assessment of matches and mismatches. Here, we assemble a genomic database (GeLaTo, or Genes and Languages Together) specifically curated to investigate genetic and linguistic diversity worldwide.*

We find that most populations in GeLaTo that speak languages of the same language family (i.e., that descend from the same ancestor language) are also genetically highly similar. However, we also identify nearly 20% mismatches in populations genetically close to linguistically unrelated groups.

These mismatches, which occur within the time depth of known linguistic relatedness up to about 10,000 years, are scattered around the world, suggesting that they are a regular outcome in human history.

Most mismatches result from populations shifting to the language of a neighboring population that is genetically different because of independent demographic histories.

In line with the regularity of such shifts, we find that only half of the language families in GeLaTo are genetically more cohesive than expected under spatial autocorrelations.

Moreover, the genetic and linguistic divergence times of population pairs match only rarely, with Indo-European standing out as the family with most matches in our sample.

Powell, W., et al (2022) **Tin from Uluburun shipwreck shows small-scale commodity exchange fueled continental tin supply across Late Bronze Age Eurasia.** SCIENCE ADVANCES 8:doi.org/10.1126/sciadv.abq3766 (available as a free pdf)

Authors' abstract: *This paper provides the first comprehensive sourcing analysis of the tin ingots carried by the well-known Late Bronze Age shipwreck found off the Turkish coast at Uluburun (ca. 1320 BCE).*

Using lead isotope, trace element, and tin isotope analyses, this study demonstrates that ores from Central Asia (Uzbekistan and Tajikistan) were used to produce one-third of the Uluburun tin ingots.

The remaining two-thirds were derived from the Taurus Mountains of Turkey, namely, from stream tin and residual low-grade mineralization remaining after extensive exploitation in the Early Bronze Age.

The results of our metallurgical analysis, along with archaeological and textual data, illustrate that a culturally diverse, multiregional, and multivector system underpinned Eurasian tin exchange during the Late Bronze Age.

The demonstrable scale of this connectivity reveals a vast and disparate network that relied as much on the participation of small regional communities as on supposedly hegemonic institutions of large, centralized states.

[Map is from this paper.]

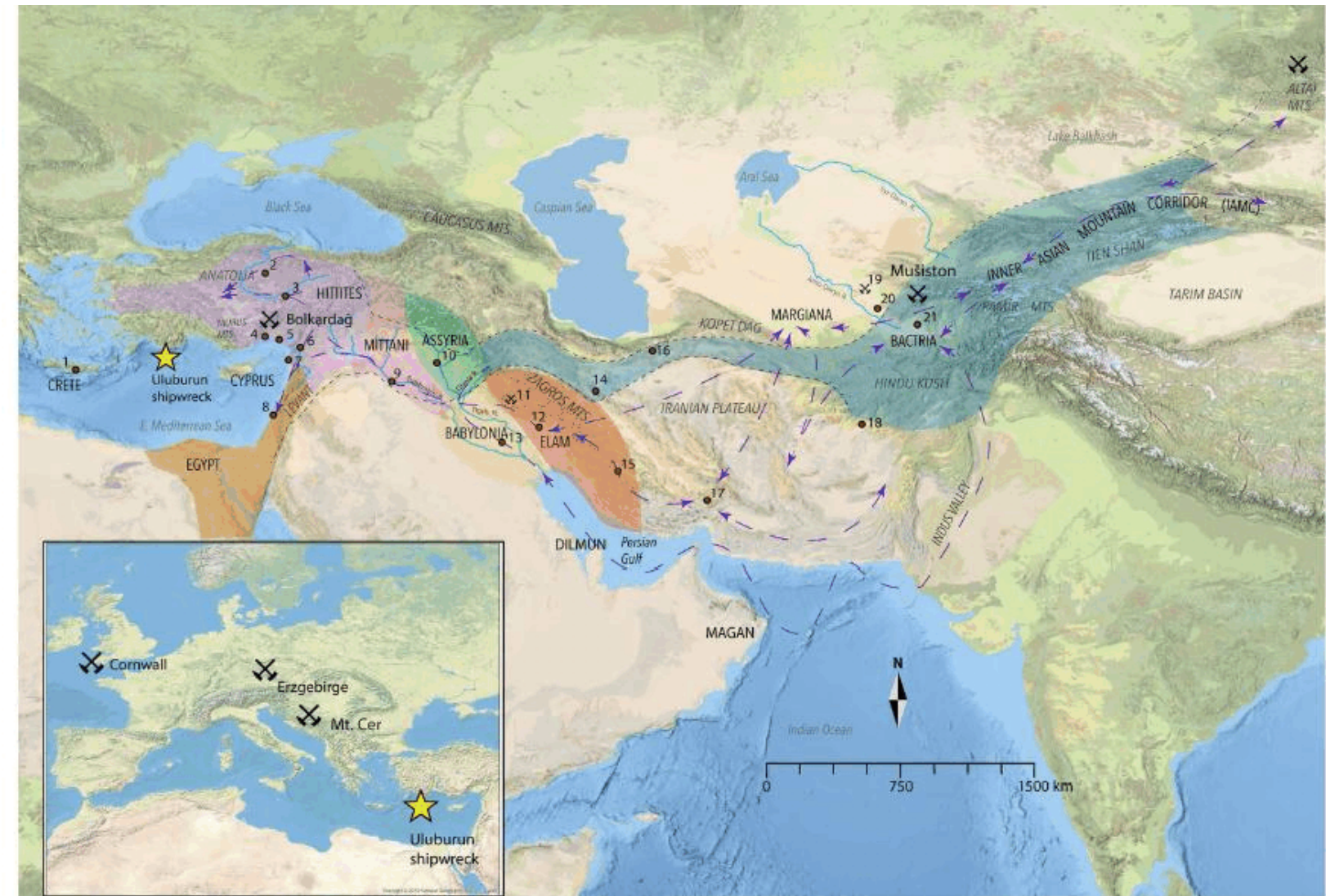


Fig. 1. Regional geography and main sites. 1, Hagia Triada; 2, Hattusa; 3, Hisarlık; 4, Mersin; 5, Tarsus; 6, Alalakh; 7, Ugarit; 8, Haifa; 9, Mari; 10, Assur; 11, Deh Hosein; 12, Susa; 13, Ur; 14, Arisman; 15, Tal-e Malyan; 16, Tepe Hissar; 17, Tepe Yahya; 18, Mundigak; 19, Karnab/Sichkonchi; 20, Sapalli; 21, Shortugai. Purple dashed arrows depict documented trade networks ca. 2200 to 1700 BCE. Blue shaded region reflects the corridor connecting the Anatolian and Central Asian/Middle Eastern tin trade (in blue), ca. 1600 to 1000 BCE. Other shaded areas represent key LBA polities. Inset map illustrates the location of ancient tin sources in Europe.

Sugiyama, N., et al (2022) **Earliest evidence of primate captivity and translocation supports gift diplomacy between Teotihuacan and the Maya.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2212431119 (available as a free pdf)

Authors’ abstract: *We interpret the offering of a complete skeleton of a charismatic animal, a captively managed spider monkey, at Plaza of the Columns as the subject of a strategic gift exchange between Teotihuacan and the Maya that reified diplomatic ties between these two major regions of Classic Mesoamerica.*

We suggest a more multilateral mode of ritual exchange preceded the Teotihuacan state’s eventual ascent to prominence prior to the epigraphically attested militaristic involvement of Teotihuacan in local Maya politics.

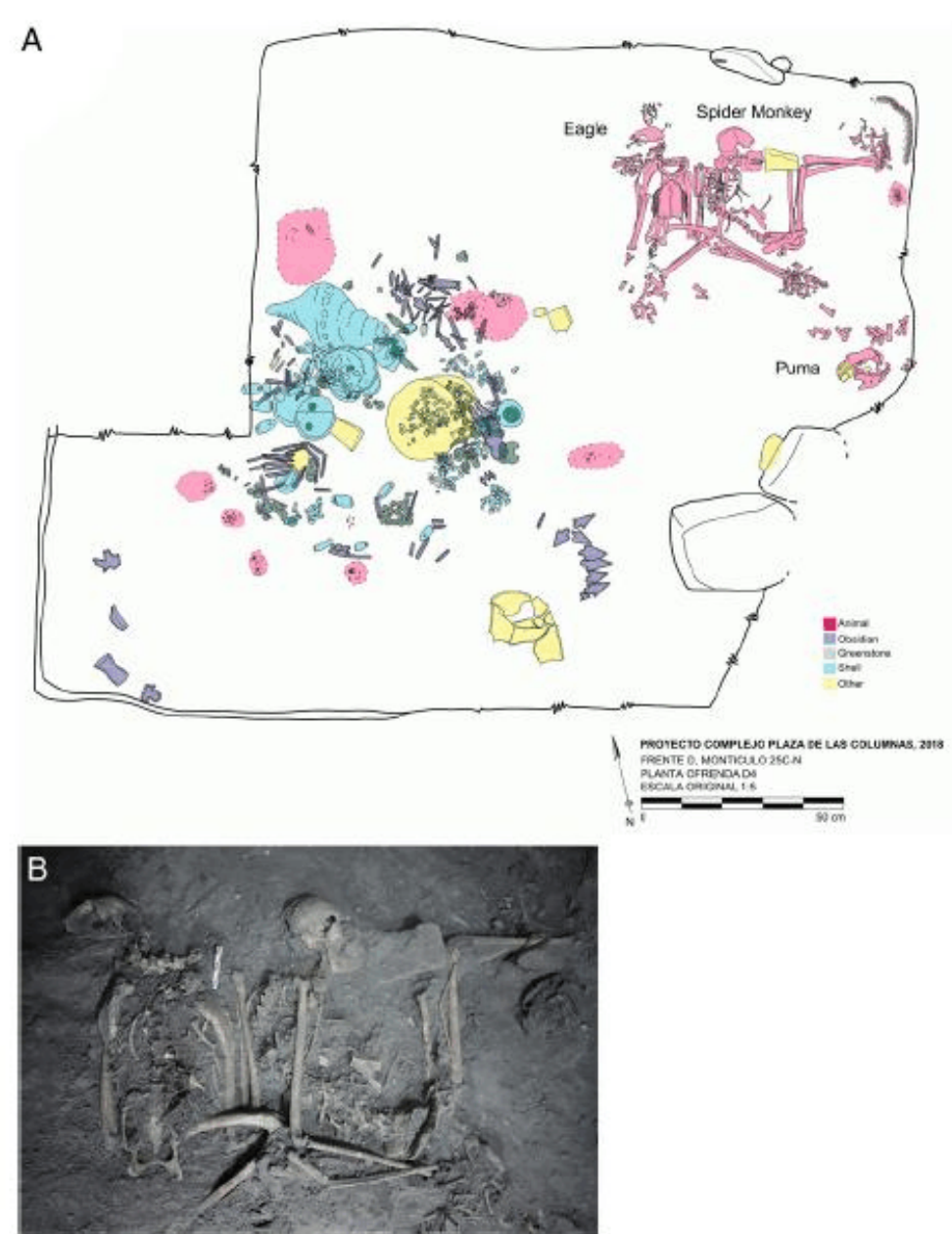
A multimethod archaeometry study (zooarchaeological, isotopic, ancient DNA, paleobotanical, and radiocarbon dating) of a spider monkey sacrificed in the ceremonial center of Teotihuacan, Mexico (1 to 550 CE) is interpreted as a diplomatic gift exchange with neighboring Maya.

Not only does this spider monkey provide the earliest known instance of primate translocation and captivity in Mesoamerica, it helps date incipient modes of interregional diplomacy between two major powers during Early Classic Mesoamerica: Teotihuacan and the Maya.

Details of human-primate interaction include age at capture and transport (before ~3 y of age), captive duration (over 2 y), anthropogenic diet (staple was maize, though secondary resources unique to anthropogenic diet including arrowroot and chili pepper were also found), context of sacrifice (tethered and associated with complete golden eagle and an array of other statecrafts), and general site context (including presence of Maya vessels and Maya-style murals).

The timing of the spider monkey’s sacrifice (250 to 300 CE) and its life history suggest a reconsideration of epigraphically attested militaristic involvement of Teotihuacan at certain Maya sites. We propose that a period of more multilateral and fluid ritual exchange with Maya dignitaries preceded the Teotihuacan state’s eventual ascent to prominence.

[Images are from this paper.]



Pearson, P.N., et al (2022) **Authenticating coins of the ‘Roman emperor’ Sponsian.** PLOS ONE 17:doi.org/10.1371/journal.pone.0274285 (available as a free pdf)

Authors’ abstract: *The ‘Roman emperor’ Sponsian is known only from an assemblage of coins allegedly found in Transylvania (Romania) in 1713.*

They are very unlike regular Roman coins in style and manufacture, with various enigmatic features including bungled legends and historically mixed motifs, and have long been dismissed as poorly made forgeries.

Here we present non-destructive imaging and spectroscopic results that show features indicative of authenticity. Deep micro-abrasion patterns suggest extensive circulation-wear.

Superficial patches of soil minerals bound by authigenic cement and overlain by oxidation products indicate a history of prolonged burial then exhumation. These observations force a re-evaluation of Sponsian as a historical personage.

Combining evidence from the coins with the historical record, we suggest he was most likely an army commander in the isolated Roman Province of Dacia during the military crisis of the 260s CE, and that his crudely manufactured coins supported a functioning monetary economy that persisted locally for an appreciable period.

[Images are from this paper.]



Technology.

Meador, James (2021) **Long-term orbit stability of the Apollo 11 “Eagle” lunar module ascent stage.** arXiv:2105.10088v1 [physics.space-ph] www.arxiv.org (available as a free pdf)

Author’s abstract: *The Apollo 11 “Eagle” Lunar Module ascent stage was abandoned in lunar orbit after the historic landing in 1969. Its fate is unknown. Numerical analysis described here provides evidence that this object might have remained in lunar orbit to the present day.*

The simulations show a periodic variation in eccentricity of the orbit, correlated to the selenographic longitude of the apsidal line. The rate of apsidal precession is correlated to eccentricity. These two factors appear to interact to stabilize the orbit over the long term.

He, S., et al (2022) **Detecting fake-review buyers using network structure: Direct evidence from Amazon.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 119:doi.org/10.1073/pnas.2211932119

Authors’ abstract: *Online reviews significantly impact consumers’ decision-making process and firms’ economic outcomes and are widely seen as crucial to the success of online markets. Firms, therefore, have a strong incentive to manipulate ratings using fake reviews.*

This presents a problem that academic researchers have tried to solve for over two decades and on which platforms expend a large amount of resources. Nevertheless, the prevalence of fake reviews is arguably higher than ever.

To combat this, we collect a dataset of reviews for thousands of Amazon products and develop a general and highly accurate method for detecting fake reviews. A unique difference between previous datasets and ours is that we directly observe which sellers buy fake reviews.

Thus, while prior research has trained models using laboratory-generated reviews or proxies for fake reviews, we are able to train a model using actual fake reviews. We show that products that buy fake reviews are highly clustered in the product reviewer network. Therefore, features constructed from this network are highly predictive of which products buy fake reviews.

We show that our network-based approach is also successful at detecting fake review buyers even without ground truth data, as unsupervised clustering methods can accurately identify fake review buyers by identifying clusters of products that are closely connected in the network.

While text or metadata can be manipulated to evade detection, network-based features are more costly to manipulate because these features result directly from the inherent limitations of buying reviews from online review marketplaces, making our detection approach more robust to manipulation.

Sun, X., et al (2022) **Are mobile phone ownership and age of acquisition associated with child adjustment? A 5-year prospective study among low-income Latinx children.** CHILD DEVELOPMENT 00:doi.org/10.1111/cdev.13851 (available as a free pdf)

Authors’ abstract: *This prospective, longitudinal study examined associations between whether and when children first acquire a mobile phone and their adjustment measures, among low-income Latinx children.*

Children (N = 263; 55% female; baseline age = 9.5) and their parents were assessed annually for 5 years from 2012. Children first acquired a mobile phone at a mean) age of 11.62 years.

Pre-registered multilevel models tested associations linking phone ownership, phone acquisition age, and the interaction between ownership and acquisition age to levels and changing trends of depressive symptoms, school grades, and reported and objectively assessed sleep.

Results showed no statistically significant associations, controlling the False Discovery Rate. Findings suggest an absence of meaningful links from mobile phone ownership and acquisition age to child adjustment.

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.

Most 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