

# OPUNTIA

## 561





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**LIONS FESTIVAL OF LIGHTS 2023**

photos by Dale Speirs

Each year the Calgary Lions clubs collectively sponsor a huge light festival inside Confederation Golf Course called the Lions Festival of Lights. Free to the public and a massive draw during the season from late November to early January, especially for families with small children.

The cover shows a general view of part of the festival. There was a full moon with just enough ice crystals high in the air to create a moonbow. Notice that to the right of the Moon is a speck of light, which was the planet Venus, also very bright in the sky.

















**BOW VALLEY SQUARE ELECTRONIC ART: PART 7**  
photos by Dale Speirs

I'm not sure why peppermint candies are considered a Christmas speciality but so they are.

[Parts 1 to 6 appeared in OPUNTIA #487, 490, 516, 527, 536, and 549.]

Bow Valley Square is a cluster of skyscrapers in downtown Calgary linked into the Plus-15 pedestrian system which connects about half the downtown skyscrapers at the second floor with an enclosed pedestrian network.

Along the south side, connecting to the Brookfield Place tower across the street, is this wall of electronic art. The displays by local artists constantly rotate.







**SHERLOCKIANA: PART 42**

by Dale Speirs

[Parts 1 to 41 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, 526, 539, and 552.]

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: Novels.**

THE BACK TO FRONT MURDER (2021) by Tim Major began with a client Abigail Moone, who wrote mysteries under the name Damien Collinbourne. Her method of constructing stories was to follow real people, then think of ways to kill them without being caught.

The procedure worked well until someone actually died from her latest plan, or so she thought. Abigail feared she would be identified as the murderer and asked Holmes to help. She was stalking Ronald Bythewood and wrote down her plan to poison him. Her notebook was stolen, possibly by the killer.

The post-mortem revealed Bythewood died from a heart attack and had been self-medicating. The plot became complicated, for the dead man's wife had been having an affair. Her husband murdered her and was in turn killed by her lover in revenge. Abigail had inadvertently stepped into the middle of a double murder.

SHERLOCK HOLMES AND THE TWELVE THEFTS OF CHRISTMAS (2022) by Tim Major brought in Irene Adler, who issued a challenge to Holmes via a musical manuscript. 'Twas a game, and Holmes was distracted into playing it, trying to find clues. She remained mostly off stage.

Holmes also had a client, a Norwegian explorer, on whose doorstep someone kept leaving animal carcasses. The novel's plot was elaborate, full of references to Greek mythology. Holmes was led around in circles back to where he started, a night at the opera. More of a character study than a mystery novel.

DEATHLY RELICS (2023) by Sam Siciliano was a novel in the series "The Further Adventures Of Sherlock Holmes". In these books the gimmick was that the great detective operated with his French cousin Henry Vernier sans Watson.

Pope Leo XIII hired Holmes to retrieve a stolen relic, the forefinger of Saint Thomas the Doubter. This was supposedly the very finger that touched Christ's wound. Holmes hardly had time to scrutinize the church from which the relic was stolen before it was returned anonymously.

Later he deduced a young priest had borrowed the relic on behalf of a woman whose father was dying. The old man's name was Tommaso and the two thought the relic might save him. No such luck and he died as he would have anyway.

A guard posted to protect the relics of the church after the return of the finger was murdered with a stiletto. This time all the relics were taken, not just the finger. The death toll continued, as a cardinal died the same way inside the Vatican. Then a baron, who had conspired with the cardinal. All were stabbed through the heart with a stiletto.

Next was the ransom note, offering return of the relics in exchange for payment in unset jewels. Holmes and Vernier were not making much progress until they met some Camorra, not to be confused with the Mafia.

They were told that the culprit was a renegade camorrista. For all their sins, the Camorra were horrified that someone would steal from the church and murder a cardinal. Therefore the killer was wanted on all sides.

Holmes managed to recover all but one of the relics, missing only the finger of Saint Thomas. The Vatican supplied him with the jewels and the final stage began. To no reader's surprise, the villain kidnapped a woman, Holmes saved her at the last moment, and most of the loose threads were tied off. A clichéd ending.

**The Woman.**

The late Carole Nelson Douglas is best remembered for her Midnight Louie cat cozy series, but she also had a series about Irene Adler. Her novels were generally verbose, with lots of plot threads left dangling at the end as supposed cliffhangers.



The main protagonists were Irene Adler, her husband Godfrey Norton, and their mousy secretary Penelope ‘Nell’ Huxleigh.

The Douglas bibliography is confusing because she rewrote some of her published Adler novels and then re-published them under different titles. An example at hand is ANOTHER SCANDAL IN BOHEMIA (2001), which was originally IRENE'S LAST WALTZ (1994).

The revised novel, which is the one I have, was still copyrighted 1994, even though it was published in 2001. Be that as it may, Adler was mostly preoccupied with events in Bohemia, trailed by Sherlock Holmes.

The action in Prague included the Golem. The novel covered the strong tinge of anti-Semitism that overlaid Europe and America at the time. As Douglas noted in an afterword, the Nazis did not rise to power in a vacuum.

Adler’s main task was sorting out the King of Bohemia. The action was spiked by the murder of bead girls and a plot to overthrow the King by patriotic Bohemians. Most, not all, of the threads were tied off and Adler returned to Paris, pleased with a job well done.

CHAPEL NOIR (2001) and CASTLE ROUGE (2002) need to be read as a two-volume novel, since little was resolved at the end of the former book. I will review them as if they were a single 950-page novel, which indeed was the situation.

The first novel opened in Paris in 1889 with the murder of two prostitutes in a brothel. The deaths were brutal enough that comparisons were made with recent events in Whitechapel.

Holmes barged into the case and competed with Adler. Also making appearances were Buffalo Bill Cody and Bram Stoker. The former was on tour through Europe with his Wild West show and the latter had a day job as a theatre manager but was traveling.

A prostitute named Pink was introduced to help narrate. Much to-ing and fro-ing, and many dialogues that settled little or nothing. Huxleigh was kidnapped, a cult went about doing dastardly things, and eventually everyone converged in Transylvania.

The action there, amidst an angry mob of peasants waving the usual torches and pitchforks, had little to do with the long-dead Vlad the Impaler. However, Rasputin showed up as a young man, his glory days in Russia yet to come.

The cult was or was not destroyed. The author didn’t leave loose threads dangling in the plot, she left hawsers hanging over the docks into the water.

**Pastiches: Anthologies.**

MISADVENTURES OF SHERLOCK HOLMES (1944) was the first anthology of Sherlockian pastiches, edited by cousins Frederic Dannay and Manfred B. Lee under their pseudonym Ellery Queen. The Estate of Sir Arthur Conan Doyle strongly objected and the publishers had to drop the title from their list.

The physical books are now worth big money. The good news is that this anthology is available as a free download from [www.archive.org](http://www.archive.org), which is where I got my copy.

The pastiches are parodies and alleged humour. None of them are above fair to average reading, despite many great authors having taken a go at the canon. The low quality of the stories was probably what motivated the Doyle Estate to suppress the book. If you are a completist Sherlockian, the book is a must-have but is unlikely to be read twice.

A DETECTIVE’S LIFE (2022) was an anthology of 12 stories edited by Martin Rosenstock. To pick a couple of stories, I’ll begin with “The Adventure Of The Misquoted Macbeth” by Derrick Belanger. Holmes’ client was debt collector Chauncey Hale Armstrong, who had been stymied by Jacob Snerley.

Some deductions, including deliberately misquoted dialogue by the three witches, led Holmes onto the trail of Snerley and two hardened criminals. There was a diamond theft planned, which was routed by a switcheroo. Snerley was an unwilling participant. In exchange for turning Queen’s Evidence, he was treated leniently.

Another story in the anthology was “The Prideaux Monograph” by Cara Black. The story was set in 1917. Watson was doing war work in a hospital when he met Holmes on a case that already had bodies and ransom notes galore.



Eventually the matter seemed to be the discovery of an unpublished manuscript by Oscar Wilde. The question was whether it actually existed and whether anyone would pay £20,000 cash for it, to be left behind a garden gate.

The stories in this anthology were from different stages of Holmes’ life and career. Some of them played variations of Moriarty and Moran, with Mycroft here and there.

**Pastiches: Magazines.**

SHERLOCK HOLMES MYSTERY MAGAZINE #2 was published in Spring 2009. I recently bought a copy from Amazon print-on-demand. Not all the stories are Sherlockian pastiches. The issue contains unrelated stories but for this review column I’ll only mention the pastiches.

“The Adventure Of The Hanoverian Vampires” by Darrell Schweitzer was a pastiche that stretched for a new variation, a story narrated by an alley cat. The feline tagged along with Holmes and Watson.

A humorous story in an alternative timeline where James VI was king and Victoria was pretender to the throne. Bonnie Prince Charlie had been victorious at Culloden and the House of Stuart reigned ever since. Among other plots by the Hanoverians was one to jack up St Paul’s Cathedral on wheels and trundle it into the Thames River. Currently they were using the services of Count Dracula and Professor Moriarty.

The denouement was on a barge in the Thames River, where Holmes and Watson had an advantage over the vampire crew. Running water, according to pseudomythology invented by Hollywood, was anathema to them. Vampires explode into steam on contact with the stuff. An amusing story.

“A Study In Evil” by Gary Lovisi put Holmes in jail on a charge of murder. The death was accidental but Holmes threw the first punch. The details were slowly dragged out that the victim was abusive to his son. Eventually Holmes was acquitted.

As with each issue of this publication, a canon story by Doyle was reprinted at the end. A pointless waste of space since all the stories have been in print for a century and are readily available elsewhere. Those pages could have been used for another pastiche.

SHERLOCK HOLMES MYSTERY MAGAZINE #25 (2018) began, as the issues normally did, with a humorous column “Ask Mrs Hudson” and a review of Holmes in movies and television.

Leah Guinn was next with an essay “True Believers: Looking At Conan Doyle’s Ghost Stories”. Many readers are not aware of the extensive range of stories written by Doyle. He became a spiritualist in later life, which certainly affected how his ghost stories are viewed today.

Three more essays follow by other authors. To be honest, these are in the spacefiller class. Anyone could churn these out without too much thought.

Moving on to pastiches, there was “The Old Policeman” by Paul Hearn. This was narrated by Holmes, not Watson. The events took place during Holmes’ retirement in the Sussex Downs. He was visited by a retired police inspector who had been part of the Whitechapel investigations.

The story was mostly a rehash of the Jack the Ripper killings, then stumbled to a closure with the inspector’s admission he was in the initial stages of dementia. Before his mind went, he wanted reassurance from Holmes that everything that could have been done was done.

“The Adventure Of The Border Convention” by Jim Robb was a pastiche of sorts set in 1884. Marshal Wyatt Holmes and his deputy Doc Watson were in Texas. They had been sent to see that a freshly negotiated treaty between Mexico and the USA was not tampered with. The analogues to Moriarty and Moran, working for the German government, almost succeeded in pulling off a switch in the bilingual treaty. But curses, foiled again. Captain Nemo made a cameo appearance.

“The Red Herring League” by Bradley Harper was an interesting retelling of a canon story, narrated by Professor Moriarty. The bank robbery was his operation but of course Holmes foiled him. Moriarty escaped because he had the foresight to dress as a police constable. Holmes never knew he had met Moriarty.

“The Adventure Of The Golden Locks” by Edward DeJesus was a parody pastiche of Holmes and Watson investigating the case of the three bears. Someone had broken into their house, eaten a bowl of porridge, and broken a chair. The rest you know.



“Sherlock Holmes And The American Assassin” by T.J. Guiney had Holmes and Watson traveling across the USA. They were asked by American authorities to help stop an assassination attempt against President Theodore Roosevelt.

So they did. The story was a routine pastiche. Marring it was the use of modern slang that would not have been used in the late 1800s or the first decade of the 1900s, such as “person of interest”.

Sherlock mentioned the phrase was used by Scotland Yard. From curiosity, I checked Google Ngram Viewer, which showed the phrase was seldom used until 2000, when it suddenly went exponential. And so to a canon story by Doyle.

January 6 is considered to be Sherlock Holmes’ birthday, so each year the ELLERY QUEEN MYSTERY MAGAZINE has a special issue in honour of the old boy, born 1854. Here are some stories from the 2023 Jan/Feb issue.

“The Murder Of Sir Henry Baskerville” by Elizabeth Elwood was set at a theatre preparing to open a play adapted from the famous novel. Roger Ellison, the actor who played Sir Henry, had been receiving threatening letters.

Offstage, Ellison was a womanizer and gambler, so the list of suspects was lengthy. There was no surprise when he was shot dead during the dress rehearsal. The only question was who in the cast or crew had shot him.

The denouement was complicated, as a techie had wired some special effects so he could be in two places at once. He didn’t like Ellison bleeding other people dry to pay for his gambling debts.

“The Killing Of Henry Davenport” by John Shen Yen Nee and S.J. Rozan brought Holmes and Watson into the year 1924, when they were both old men in their 70s. A visiting Chinaman had been accused of murdering a young nobleman.

The case emphasized the sociology of what was happening in those decades, the refusal of most nobility to acknowledge that the old order was fading away, and a more democratic and classless society was being born.

The father of the dead man had concocted a plan which went awry and resulted in the death of his son. Holmes blackmailed him into letting justice be done and the Chinaman be acquitted.

“The Reigate Squires” by Terance Faherty was part of a humourous series in which he rewrote canon stories as alleged first drafts by Watson. These drafts were different from the published story, and supposedly were heavily revised by Watson before submission to the editor.

In this version, the squires were planning to defraud their neighbour of her land, while her servants in turn had a counter-fraud with Holmes.

The October 2023 issue of MYSTERY MAGAZINE was another bumper crop of Sherlockiana. Available from [mysterymagazine.ca](http://mysterymagazine.ca) or, as I bought it, from Amazon print-on-demand.

“The Adventure Of The Vanished Women” by Edward Lodi concerned the murder of a woman in cottage country in the south of England, the disappearance of another nearby, and the vanishing of the charlady who served them both.

The case seemed to be a double murder and a fleeing killer. Holmes deduced that the two vanished women were one and the same individual, who had murdered the first woman. The search was on for an actress who had good cause to kill but could not escape the chain of connections that Holmes established.

“The Adventure Of The Four Napoleons” by Jon Matthew Farber was an account of the two Holmes brothers and Watson dining out. The brothers' conversation was one-upping each other with deductions about what the other had been doing. There followed a brief set-up for an unrelated matter which culminated in a contrived pun.

“The Diogenes Club Mystery” by Michael Mallory was narrated by Sherlock. He was assisted by Mycroft, and Watson was absent from the story. The case was the theft of a jeweled piece from the Diogenes Club.

Mycroft was hampered because he could not accuse a fellow member. Sherlock, as an outsider, could investigate freely. The jewelry was tracked down but the culprit was shown lenience for good reasons.

“Who Wrote “The Adventure Of The Mazarin Stone”” by Bruce Harris was an essay about one of the only two canon stories written in third-person. The majority of stories were, of course, first-person by Watson, and a few by Holmes in first-person.



Harris concluded that the point-of-view third-person narrator was a character named Langdale Pike. He was a syndicated gossip columnist who occasionally tipped off Holmes and in return received information.

“The Adventure Of My Very First Case” by Martin Hill Ortiz was a parody about a sharp-practice man named Jules Pfennig. He was down on his luck and broke, living in a cheap room at 223 Baker Street. A governess Elizabeth Kane arrived at Pfennig’s door, mistaking him for Holmes.

Needing money, he allowed her to hire him to learn who was trying to frame her with a jewelry theft. He visited the manor house, faked his way along as Holmes, romanced a housemaid, and exposed His Lordship’s young son as the thief. Pfennig concluded that Sherlocking could prove to be a profitable sideline.

**Pastiches: Crossovers.**

SHERLOCK HOLMES AND MR HYDE (2022) was from Christian Klaver’s series. The client was Dr Jekyll who wanted help to absolve his friend Edward Hyde of recent violent crimes.

Jekyll took the langur serum in 221B to demonstrate his transformation. Hyde then explained his side of the story to Holmes and Watson. The belief of Jekyll/Hyde was that a serial killer was loose in London.

Dracula and Mina stepped back into the plot. The author added in several Cthulhu Mythos references as well, just to mash them in for the sake of mashing. Van Helsing was with them, now a Lovecraftian leading a cult to bring back Cthulhu. He and a few others were sorted out but some threads were left dangling for the next novel.

THE TESLA TELE-AUTOMATON AND OTHER STORIES (2022) by Mike Hogan was a collection of four pastiche novellas. Leading off was “The Tesla Tele-Automaton”, which brought Holmes and Watson to the Savoy Hotel to investigate the theft from a Mr Brown of valuable documents.

Mr Brown was instantly recognized by Holmes as Nikola Tesla. He traveled under a pseudonym not because of fears for his safety but because he had a bad reputation among hotels for skipping in the night and leaving a trail of unpaid bills behind him.

Tesla was carrying plans for an automated torpedo that would hunt and sink ships. Someone stole the plans from his hotel room while he was at breakfast. The list of suspects was narrowed down by tedious plodding, the essence of detective work.

The culprit was an eccentric preacher who recognized Tesla as an agent of Satan. The papers were dunked in a saltwater bath to destroy them, mainly because the clergyman’s landlady wouldn’t let him have a bonfire in the backyard to burn them. Tesla always used indelible ink for his final copy, so the papers were recovered wet but still legible.

“The Hyde Park Mystery” took place during a cab drivers’ action. Not a strike but a protest about how passengers were picked up at railroad terminals. Both sides had their grievances. The cabbies could barely make more than their cab hire.

The owners struggled to make a profit in an overcrowded market. Technology was changing the cab trade. The telephone eliminated a lot of messenger traffic that once used cabs.

Holmes was asked to help cabbie Thomas Long, accused of murdering a cab company owner James Staines. Long had bought his own cab and helped cabbies organize. Staines had his back to the wall financially. The two had exchanged heated words many times.

Holmes deduced Staines’ death was actually a duel. Both Long and Staines simultaneously tried to kill each other, and Long was the better shot. Since he could easily plead self-defence, that gave him the benefit of a doubt and he was released.

“Ta-Ra-Ra-Boom-De-Ay” was about music hall singer Lottie Collins, who really existed. She made that song famous, and it became her signature tune. She performed it while doing high kicks similar to the can-can. Audiences loved it and the prudes condemned her.

Collins sued a newspaper for libel for calling her vulgar. Watson and like-minded friends clubbed together and asked Holmes to help. That got into the news and threw both men into the middle of a media circus.



She won the case. Holmes, Watson, and Inspector Lestrade didn't get to leave the courthouse though. While the mob slowly dispersed, the detectives examined the body of a chorus line dancer. She had been strangled in the courthouse ladies washroom while the trial was in progress.

She wasn't the first to die, although more conspicuous. Holmes learned that others on the chorus line had disappeared. A serial killer was at work. He was identified but at that point the story abruptly ended without resolution.

"The Proper Job" was the final story. The client was Mr Grigoryan, who had been at the bank that morning to retrieve something from his safe deposit box. Unfortunately the bank couldn't get the vault open.

The manager assured one and all that the problem was just a technical glitch. Think airlines during a blizzard or a multinational hit by ransomware. Not to worry, we'll soon get things sorted, and so forth.

Holmes, Watson, and a police sergeant walked about the building and found trouble in an office directly above the vault. Safecrackers used high explosives under heavy mats stacked with layers of sandbags. They punched a huge hole into the vault through its ceiling.

Watson did as much clever deducing as Holmes. Only a few safe deposit boxes were opened, indicating the thieves knew what they were looking for. The belief was that the boxes were rented by De Beers, and were crammed with uncut diamonds.

The plot made a right-angle turn when a similar heist occurred in New York City. Instead of diamonds, blackmail documents were involved that might shake the foundations of the Empire. The usual sort of thing. Holmes broke the case with an American perpetrator. Since photographs were involved, the solution to the problem was kept private.

On the whole, this book read quite well. The plots were intricate but understandable. Well recommended.

## **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. Available as free downloads from the Old Time Radio Researchers at [www.otrr.org/OTRRLibrary](http://www.otrr.org/OTRRLibrary)

"The Unfortunate Tobacconist" aired on 1945-04-30 and was written by Denis Green and Anthony Boucher. The announcer was Bill Forman, who worked a side job as The Whistler, but in this series plugged Petri Wines and listened to Watson's narrative, played by Nigel Bruce.

In this episode, the doddering old fool was snoring in his armchair when Forman arrived to hear the weekly story. Watson woke up and settled back to tell the tale.

Holmes had noticed three tobacconists had been murdered in the same riverbank shop of East End London. Lestrade showed up on the same matter, and so the investigation began.

There was a bearded Hindu as the prime suspect. They trapped him in the shop but he was an investigator for the Foreign Office, sent by Mycroft. The episode paused for Forman to inform the listeners about how Petri wine improved any meal.

Meanwhile, back at the shop, various alarums proceeded and assorted theories propounded. Another trap was laid and sprung on the proprietor himself. A tunnel to the waterfront was found in a back room. At first glance it might have been used for smuggling. However, since the Foreign Office had an agent sniffing around, the more likely probability was an espionage ring.

After another Petri commercial, Nigel Bruce broke character to discuss the imminent surrender of Germany. Note the date of this episode, the same day Adolf Hitler committed suicide. Bruce emphasized the war was not yet over and Japan still had to be dealt with.

"The Clue Of The Hungry Cat" aired on 1946-10-26 and was written by Denis Green and Anthony Boucher. The episode began at the Old Bailey where Robert Saunders was sentenced to hang for murder of Amanda Poste.



Holmes had to wonder because only £8 was stolen out of a cashbox containing £65. He made enquiries and learned from a neighbour that she had been disturbed by the Poste cat. The feline was normally fed at 18h00 but was yowling for food.

The neighbour fed the cat and went back to her house, only to be awakened that night by the Poste house on fire. Stealing a line from the canon, Holmes later told the story to Watson and said it was a curious incident.

The widower Poste showed up at 221B indignant that Holmes was snooping about asking questions. He admitted he owed Saunders £8 in back wages and had inherited great wealth from Amanda.

Holmes reassured him and he left in a good mood. After he left, Holmes told Watson he suspected Poste. Collecting clues from as far away as Australia whence Poste had come, Holmes held a J'accuse! meeting.

Amanda was strangled by her husband, who then used an infernal device set off by an alarm clock to start the fire while he was away from home on business and had an alibi. The £8 theft by Saunders was an unrelated coincidence which provided Poste with a wonderful opportunity of a scapegoat.

Holmes then sprang a tomato surprise, that Poste had been a convict in Australia who had murdered three previous wives Down Under for their money. Poste burst out with a confession, then tried to run but was rendered unconscious by Watson.

**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](http://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.

"His Second To Last Bow" was written by Joe Bevilacqua and announced as episode 8 in both the intro and outro. However, it was actually episode 9 in the sequence.

Holmes and Hudson were retired to the Sussex Downs and keeping bees. Watson had finally been released from the psychiatric ward in Vienna and made his way back to England. The year was 1923.

Holmes insisted on showing Watson his bees, then offered to take him to America on a case. After some more blithering, and honey-dipped onion buns from Hudson, plus the bees running amok, away they went.

In New York City, they settled into the Jazz Age culture. Holmes brought along his favourite bee, named Murray. Holmes and Hudson went sleuthing because they had seen an imposter who looked like him. They left Watson behind because he annoyed them.

Complained Holmes, "*Sometimes he finishes a book before I have a chance to solve the case. It becomes very difficult to work incognito with my face plastered on the cover of a bestseller.*"

The imposter was in fact an actor playing Holmes in a Broadway musical "Springtime For Sherlock". Name of William Gillette, which every Sherlockian will recognize. Watson arrived and promptly got into an argument with Gillette about unpaid royalties.



The final few minutes were taken up by musical numbers such as “The Sherlock Rag” and “Baker Street Blues”. Holmes took offense and barged into the performance. The audience thought he was part of the act.

“Revenge Of The Beekeeper”, written by Joe Bevilacqua, was announced as episode 10, the final episode. Holmes had just returned to Sussex after a triumphant role on Broadway in “Springtime For Sherlock”.

He was indignant to learn Mrs Hudson was now detecting and doing a better job than he ever did. The two partnered to investigate Sir Arthur Conan Doyle, Watson’s literary agent. They never did like him.

All the characters from the previous episodes appeared, including Bert Stover, still holding a grudge about the cat. They combined to kill Holmes, but he died of natural causes first.

**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 Baker Street Nursemaids” was written by Joseph Victor and Sheldon Reynolds and aired on 1955-04-25. The episode began with a newborn baby delivered to 221B with a note from the mother Madame Durand. Her husband had been kidnapped and she sent the baby to Holmes for safekeeping.

The police kept the kidnapping from the newspapers. Holmes and Lestrade investigated while Watson was left minding the baby. The only song Watson knew was “Rule Britannia” so he sung it as a lullaby. That only made the baby cry, which became a running joke.

Dr Durand had invented a submersible, a newfangled ship that sailed underwater. While Holmes and Lestrade were out, Watson was ambushed and the baby taken. Count Tennyson was the villain, hoping to get the submarine plans by holding the Durand family hostage.

Holmes and Watson visited Tennyson in his lair, who admitted the kidnaps but said the family weren’t there. In a very clever bit (Tennyson himself said so), Watson loudly whistled “Rule Britannia”. The distant sound of a baby crying was heard.

They tried to negotiate a deal with Tennyson: safe passage out of the country in exchange for the Durand family. That didn’t succeed. Plan B was to take out the staff one by one and search the mansion. There were some humorous bits as Watson instructed Holmes on the proper way to slug a man unconscious.

The Durands were rescued and Tennyson didn’t get the plans. His country was never mentioned and there was ambiguity about whether he had diplomatic status. But on to the end credits and the Empire saved once more.

“The Case Of The Perfect Husband” was written by Hamilton Keener and aired on 1955-05-02. Janet and Russell Partridge had just celebrated their first wedding anniversary. He suddenly revealed his psychopathic nature and told her he would kill her tomorrow night.

She went to Inspector Lestrade for help. He told her that Russell had been there that morning a few hours previous and told him she was insane. She went to Holmes for help. Lestrade and Russell arrived at 221B in short order, having followed her.

Holmes insisted Lestrade investigate Russell’s past, a history of fiancées and wives suddenly disappearing. Russell was a slippery devil and neither Holmes or Lestrade could find evidence against them.

A second try by Holmes used Janet as bait. He bluffed Russell into revealing seven coffins for seven wives and fiancées. One narrow coffin was under each



step of the grand staircase of the mansion, and an eighth prepared for Janet. The man was insane beyond any reasonable doubt.

“The Case Of The Jolly Hangman” was written by Charles and Joseph Early and aired on 1955-05-09. Jessie Hoopler visited 221B after the death of her husband William in Glasgow. He was a rope salesman who had been given notice. His body was found dangling from a beam in his hotel room.

The verdict was suicide because of his layoff but Jessie didn’t believe the circumstances. She asked Holmes and Watson to investigate. With the hotel manager and the police (Lestrade’s cousin Inspector Macleod), they barged into the room where William had died.

There was a guest there who was rudely awakened by the intrusion of all the sleuths. “*Just a routine inspection*”, Watson calmly assured the man as the sleuths investigated the overhead beam. The four detectives learnedly discussed the mechanics of hanging while the guest watched in horror.

Throughout the episode, a jolly man had been cutting in and out of scenes with cameo appearances. Since the title gave away the culprit’s identity, the only remaining suspense was how Holmes would find the murderer.

Holmes eventually learned that William had seen his grandfather murdered as a young boy. He speculated that the killer had come back to tidy up the details years later. Checking William’s office, they met a jolly sales manager Herbert Baxter.

Viewers will immediately identify him as the murderer, although Holmes and Watson didn’t. Baxter went to Jessie’s place to clean up yet another detail. Holmes and Watson rescued her in the usual nick of time.

Baxter was trying to hang her when Holmes and Watson burst into the apartment. He dove out the window to flee but forgot the apartment was several stories up, and broke his neck on the cobblestones

## SEEN IN THE LITERATURE

### Astronomy.

Costantin, L., et al (2023) **A Milky Way-like barred spiral galaxy at a redshift of 3.** NATURE 623:doi.org/10.1038/s41586-023-06636-x (available as a free pdf)

Authors’ abstract: *The majority of massive disk galaxies in the local Universe show a stellar barred structure in their central regions, including our Milky Way.*

*Bars are supposed to develop in dynamically cold stellar disks at low redshift, as the strong gas turbulence typical of disk galaxies at high redshift suppresses or delays bar formation.*

*Moreover, simulations predict bars to be almost absent beyond  $z = 1.5$  in the progenitors of Milky Way-like galaxies. Here we report observations of ceers-2112, a barred spiral galaxy at redshift  $\sim 3$ , which was already mature when the Universe was only 2 gigayears old.*

*The stellar mass and barred morphology mean that ceers-2112 can be considered a progenitor of the Milky Way, in terms of both structure and mass assembly history in the first 2 Gyr of the Universe, and was the closest in mass in the first 4 Gyr.*

*We infer that baryons in galaxies could have already dominated over dark matter at  $z \sim 3$ , that high-redshift bars could form in approximately 400 Myr and that dynamically cold stellar disks could have been in place by redshift  $z = 4$  to 5 (more than 12 Gyrs ago).*

Bogdán, Á., et al (2023) **Evidence for heavy-seed origin of early supermassive black holes from a  $z \sim 10$  X-ray quasar.** NATURE ASTRONOMY 7:doi.org/10.1038/s41550-023-02111-9

Authors’ abstract: *Observations of quasars reveal that many supermassive black holes (BHs) were in place less than 700 megayears after the Big Bang. However, the origin of the first BHs remains a mystery.*

*Seeds of the first BHs are postulated to be either light (that is, 10 to 100 solar masses ), remnants of the first stars, or heavy (that is, 10 to 10<sup>5</sup> solar masses ), originating from the direct collapse of gas clouds.*

*Here, harnessing recent data from the Chandra X-ray Observatory, we report the detection of an X-ray-luminous massive BH in a gravitationally lensed galaxy identified by the James Webb Space Telescope at redshift  $z \sim 10.3$  behind the cluster lens Abell 2744.*

*This heavily obscured quasar with a bolometric luminosity of  $\sim 5 \times 10^{44}$  erg seconds harbours an  $\sim 10^7$  to  $10^8$  solar masses BH assuming accretion at the Eddington limit. This mass is comparable to the inferred stellar mass of its host galaxy, in contrast to what is found in the local Universe wherein the BH mass is  $\sim 0.1\%$  of the host galaxy's stellar mass.*

*The combination of such a high BH mass and large BH-to-galaxy stellar mass ratio just  $\sim 500$  megayears after the Big Bang was theoretically predicted and is consistent with a picture wherein BHs originated from heavy seeds.*

Mann, Adam (2023) **“Fermi” bubbles are bursting from our galaxy. Their origins remain a mystery.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 120:doi.org/10.1073/pnas.2318720120 (available as a free pdf)

Author's extracts: *On a clear night, far from city lights, the glittering plane of the Milky Way splashed across the sky can be an unparalleled sight.*

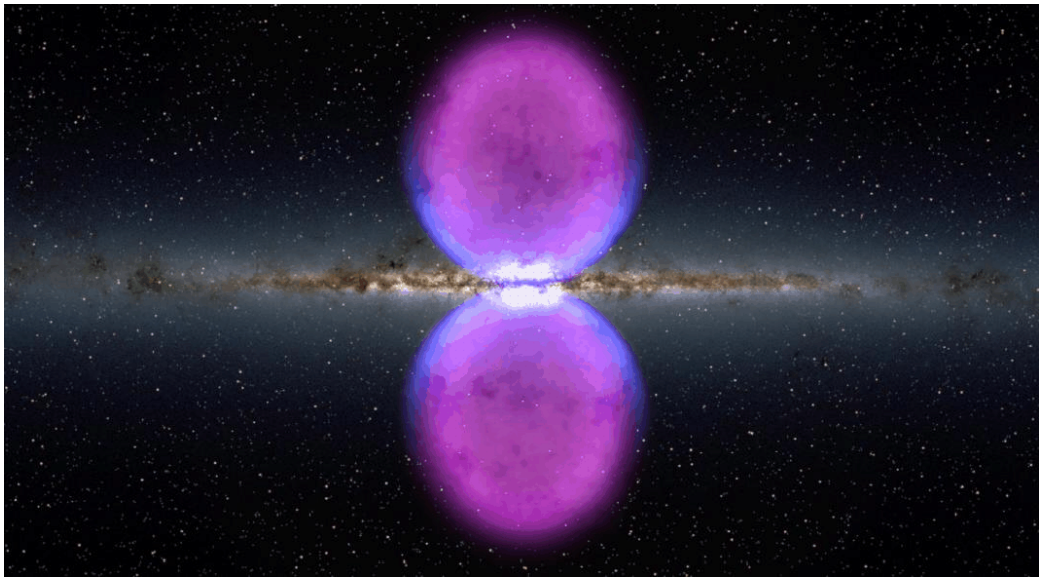
*But if gamma rays were visible to our eyes, you'd see two massive clouds ballooning up and down from the center of our galaxy, reaching the constellation Virgo in one direction and the constellation Crux in the other.*

*And if X-rays were visible, they'd show the rounded caps crowning those gigantic bubbles, which extend out twice as far.*

*Two competing theories suggest different mechanisms for creating these galaxy-sized bubbles. One posits that they appeared when the supermassive black hole at the center of the Milky Way consumed many thousand suns' worth of matter and then belched out a bright beam of particles and radiation.*

*The other argues that the culprit was outflowing material driven by an intense period of star formation in our galactic center.*

[Image is from this paper, looking edge on at the Milky Way galaxy. The purple bubbles are made of gamma rays, and the blue rims of X-rays.]



Tsuge, M., et al (2023) **Surface diffusion of carbon atoms as a driver of interstellar organic chemistry.** NATURE ASTRONOMY 7:1351-1358

[All life is based on carbon atoms. Could life evolve on dust grains of interstellar space?]

Authors' abstract: *Many interstellar complex organic molecules (COMs) are believed to be produced on the surfaces of icy grains at low temperatures. Atomic carbon is considered responsible for the skeletal evolution processes, such as C-C bond formation, via insertion or addition reactions.*

*Before reactions, C atoms must diffuse on the surface to encounter reaction partners; therefore, information on their diffusion process is critically important for evaluating the role of C atoms in the formation of COMs.*



*In situ detection of C atoms on ice was achieved by a combination of photostimulated desorption and resonance-enhanced multiphoton ionization methods.*

*We found that C atoms weakly bound to the ice surface diffused above approximately 30 K and produced C<sub>2</sub> molecules. The activation energy for C-atom surface diffusion was experimentally determined to be 88 meV (1,020 K), indicating that the diffusive reaction of C atoms is activated at approximately 22 K on interstellar ice.*

*The facile diffusion of C atoms at temperatures above 22 K on interstellar ice opens a previously overlooked chemical regime where the increase in complexity of COMs is driven by C atoms.*

*Carbon addition chemistry can be an alternative source of chemical complexity in translucent clouds and protoplanetary disks with crucial implications in our current understanding on the origin and evolution of organic chemistry in our Universe.*

McLeod, A.F., et al (2023) **A probable Keplerian disk feeding an optically revealed massive young star.** NATURE 623:doi.org/10.1038/s41586-023-06790-2 (available as a free pdf)

Authors' abstract: *The canonical picture of star formation involves disk-mediated accretion, with Keplerian accretion disks and associated bipolar jets primarily observed in nearby, low-mass young stellar objects (YSOs). Recently, rotating gaseous structures and Keplerian disks have been detected around several massive YSOs (MYSOs), including several disk-jet systems.*

*All the known MYSO systems are in the Milky Way, and all are embedded in their natal material. Here we report the detection of a rotating gaseous structure around an extragalactic MYSO in the Large Magellanic Cloud.*

*The gas motion indicates that there is a radial flow of material falling from larger scales onto a central disk-like structure. The latter exhibits signs of Keplerian rotation, so that there is a rotating toroid feeding an accretion disk and thus the growth of the central star.*

*The system is in almost all aspects comparable to Milky Way high-mass YSOs accreting gas from a Keplerian disk. The key difference between this source and its Galactic counterparts is that it is optically revealed rather than being deeply embedded in its natal material as is expected of such a massive young star.*

*We suggest that this is the consequence of the star having formed in a low-metallicity and low-dust content environment. Thus, these results provide important constraints for models of the formation and evolution of massive stars and their circumstellar disks.*

*The lack of observations of optically revealed massive young stellar objects (MYSOs) is a consequence of the rapid timescales on which massive stars form.*

*They form in heavily embedded regions full of gas and dust, such that the accretion phase typically occurs before the star has time to become exposed due to stellar feedback, whether internal or external.*

*The primary reason for the lack of observations of extragalactic accretion disks around forming stars has been the limited spatial resolution of both ground- and space-based observatories.*

*At a distance of 50 kiloparsecs, the Large Magellanic Cloud (LMC) is a convenient environment for searching for the extragalactic counterparts of the accreting MYSOs known in the Milky Way.*

**Planets.**

Luque, R., et al (2023) **A resonant sextuplet of sub-Neptunes transiting the bright star HD 110067.** NATURE 623:doi.org/10.1038/s41586-023-06692-3 (available as a free pdf)

[Not all planets are formed from chaotic star disks. This study showed a six planets in stable orbit for billions of years due to resonance.]

Authors' abstract; *Planets with radii between that of the Earth and Neptune (hereafter referred to as 'sub-Neptunes') are found in close-in orbits around more than half of all Sun-like stars. However, their composition, formation and evolution remain poorly understood.*

*The study of multiplanetary systems offers an opportunity to investigate the outcomes of planet formation and evolution while controlling for initial conditions and environment. Those in resonance (with their orbital periods related by a ratio of small integers) are particularly valuable because they imply a system architecture practically unchanged since its birth.*

*Here we present the observations of six transiting planets around the bright nearby star HD 110067. We find that the planets follow a chain of resonant orbits. A dynamical study of the innermost planet triplet allowed the prediction and later confirmation of the orbits of the rest of the planets in the system.*

*The six planets are found to be sub-Neptunes with radii ranging from 1.94 to 2.85 Earth diameter. Three of the planets have measured masses, yielding low bulk densities that suggest the presence of large hydrogen-dominated atmospheres.*

*Mean-motion resonances (MMRs) are orbital configurations in which the period ratio of a pair of planets is oscillating near a rational number of the form  $(k + q)/k$ , in which  $k$  and  $q$  are integers. First-order MMRs (in which  $q = 1$ ) are the most common among planetary systems, as well as resonant chains.*

*The HD 110067 planetary system thus comprises at least six transiting planets orbiting in a chain of first-order MMRs ( $3/2-3/2-3/2-4/3-4/3$ ). The planets have radii ranging between 1.94 and 2.85 times the radius of the Earth, orbital periods between 9 and 55 days and equilibrium temperatures between 440 and 800 K.*

Payne, R.C., and L. Kaltenegger (2023) **Oxygen bounty for Earth-like exoplanets: spectra of Earth through the Phanerozoic.** MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 527:doi.org/10.1093/mnrasl/slad147 (available as a free pdf)

Authors' abstract: *In the search for life in the Universe, Earth provides a template of evolution for the one habitable planet we know.*

*Earth's atmospheric composition has changed significantly throughout its history. The last 500 megayears, the Phanerozoic Eon, which includes the origins of animals, dinosaurs, and land plants, saw oxygen rise from ~10 per cent to 35 per cent. But the resulting transmission spectra are a crucial missing*

*piece in our search for signs of life in exoplanet atmospheres. Here, we simulate the atmosphere and transmission spectra of the Phanerozoic, using estimates from established climate models, and present the first high-resolution transmission spectra for Phanerozoic Earth.*

*We demonstrate that the spectral biosignature pairs  $O_2 + CH_4$  and  $O_3 + CH_4$  in the atmosphere of a transiting Earth-like planet would indicate a biosphere, with  $O_2$  and  $O_3$  features potentially stronger than for modern Earth.*

## Geology.

Timmerman, S., et al (2023) **Sublithospheric diamond ages and the supercontinent cycle.** NATURE 623:doi.org/10.1038/s41586-023-06662-9 (available as a free pdf)

[Diamonds are not only forever, it appears they are what held the supercontinents' keels together.]

Authors' abstract: *Subduction related to the ancient supercontinent cycle is poorly constrained by mantle samples. Sublithospheric diamond crystallization records the release of melts from subducting oceanic lithosphere at 300 to 700 km depths and is especially suited to tracking the timing and effects of deep mantle processes on supercontinents.*

*Here we show that four isotope systems (Rb–Sr, Sm–Nd, U–Pb and Re–Os) applied to Fe-sulfide and CaSiO<sub>3</sub> inclusions within 13 sublithospheric diamonds from Juína (Brazil) and Kankan (Guinea) give broadly overlapping crystallization ages from around 450 to 650 million years ago.*

*Preservation of these Neoproterozoic-Palaeozoic sublithospheric diamonds beneath Gondwana until its Cretaceous breakup, coupled with majorite geobarometry, suggests that they accreted to and were retained in the lithospheric keel for more than 300 megayears during supercontinent migration.*

*We propose that this process of lithosphere growth, with diamonds attached to the supercontinent keel by the diapiric uprise of depleted buoyant material and pieces of slab crust, could have enhanced supercontinent stability.*





**Origin Of Life.**

Jiao, L., et al (2023) **Evidence for high-frequency oxygenation of Ediacaran shelf seafloor during early evolution of complex life.** COMMUNICATIONS EARTH AND ENVIRONMENT 4:doi.org/10.1038/s43247-023-01080-1 (available as a free pdf)

Authors’ abstract: *Increasing oxygenation of the early Ediacaran Ocean is thought to have been responsible for the emergence of early animals. Although geochemical studies have suggested periods of oceanic oxygenation in the Ediacaran, direct evidence for seafloor oxygenation has been lacking.*

*Here, we report frequent occurrences of distinctive, sub-millimetric, and early diagenetic pyrite-marcasite rosettes in phosphorites from the lower Ediacaran Doushantuo Formation (Weng’an, South China).*

*They typically consist of a nucleus of framboidal pyrite, a cortex of radiating marcasite blades intergrown with quartz, and a rim of second-generation pyrite, recording partial oxidative dissolution of pyrite and co-precipitation of marcasite and quartz.*

*This inference is further supported by near-zero carbon isotope values of the host dolostone, similarly low sulfur isotope values for pyrite and marcasite, and evident Fe-isotope fractionation between marcasite and pyrite. Collectively, our findings reveal intermittent bottom-water and porewater oxygenation events, providing direct evidence of high-frequency oxygenation of Ediacaran continental shelves.*

**Paleobiology.**

Abrahams, M., and E.M. Bordy (2023) **The oldest fossil bird-like footprints from the upper Triassic of southern Africa.** PLOS ONE 18:doi.org/10.1371/journal.pone.0293021

Authors’ abstract: *Footprint morphology reflects the anatomy of the trackmaker’s foot and is direct evidence for the animal’s behaviour.*

*Consequently, fossil tracks can be used to infer ancient diversity, ethology, and evolutionary trends. This is particularly useful for deep-time intervals during*

*which the early history of an animal group is reliant upon limited fossil skeletal material.*

*Fossil tracks of early birds and theropods, the co-existing dinosaurian ancestors of birds, cooccur in the rock record since the Early Cretaceous. However, the evolutionary transition from dinosaur to bird and the timing of the birds’ origin are still contested.*

*Skeletal remains of the basal-most birds Aurornis, Anchiornis, Archaeopteryx and Xiaotingia are Middle to Late Jurassic, while tracks with tentative bird affinities, attributed to dinosaurs, are known from as early as the Late Triassic.*

*Here, we present numerous, well-provenanced, Late Triassic and Early Jurassic tridactyl tracks from southern Africa, with demonstrable bird-like affinities, predating basal bird body fossils by circa 60 million years.*

Peters, C., et al (2023) **Bone collagen from subtropical Australia is preserved for more than 50,000 years.** COMMUNICATIONS EARTH AND ENVIRONMENT 4:doi.org/10.1038/s43247-023-01114-8 (available as a free pdf)

Authors’ abstract: *Ancient protein studies have demonstrated their utility for looking at a wide range of evolutionary and historical questions. The majority of palaeoproteomics studies to date have been restricted to high latitudes with relatively temperate environments.*

*A better understanding of protein preservation at lower latitudes is critical for disentangling the mechanisms involved in the deep-time survival of ancient proteins, and for broadening the geographical applicability of palaeoproteomics. In this study, we aim to assess the level of collagen preservation in the Australian fossil record.*

*Collagen preservation was systematically examined using a combination of thermal age estimates, Fourier Transform Infrared Spectroscopy, Zooarchaeology by Mass Spectrometry, and protein deamidation calculations.*

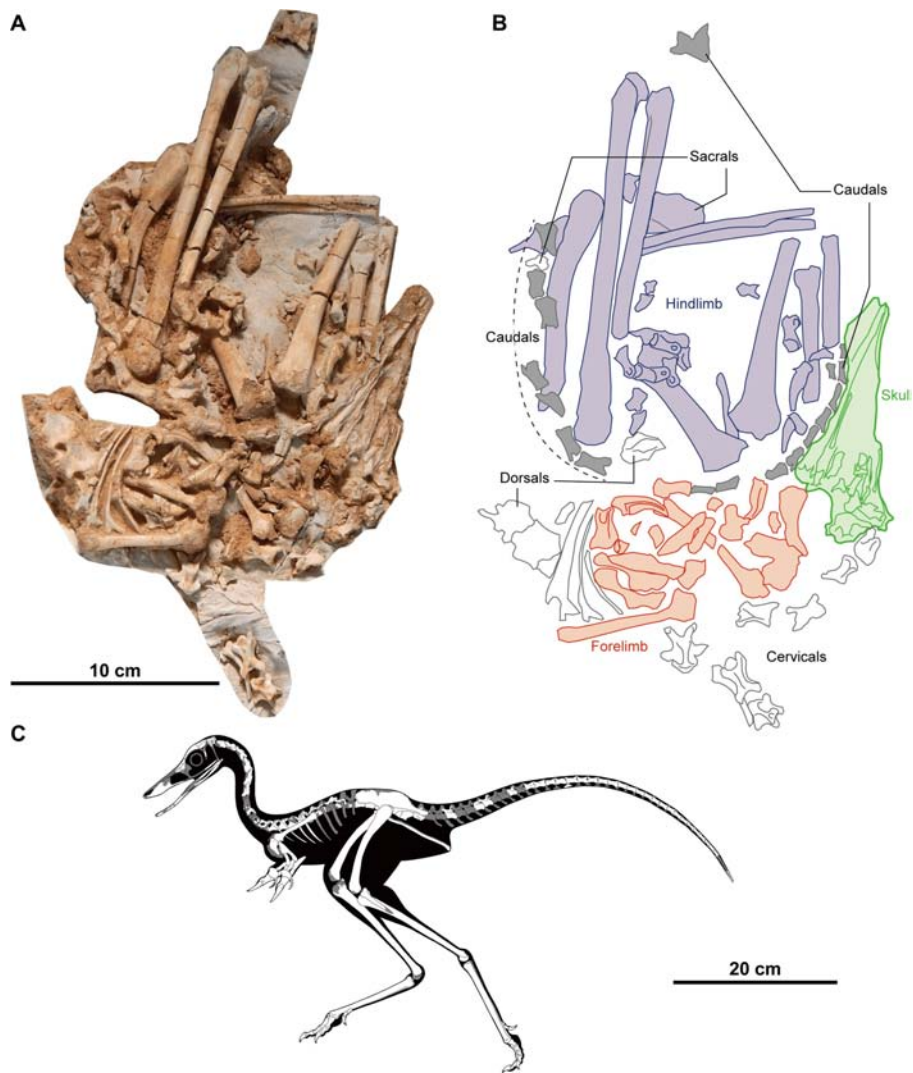
*We reveal unexpected subtropical survival of collagen in bones more than 50 thousand years old, showing that protein preservation can exceed chemical predictions of collagen survival in bone.*



Dinosaurs.

Kubo, K., et al (2023) **A new alvarezsaurid dinosaur (Theropoda, Alvarezsauria) from the Upper Cretaceous Baruungoyot Formation of Mongolia provides insights for bird-like sleeping behavior in non-avian dinosaurs.** PLOS ONE 18:doi.org/10.1371/journal.pone.0293801

Authors’ abstract: *Alvarezsauria is a group of early-branching maniraptoran theropods that are distributed globally from the Late Jurassic to the latest Cretaceous. Despite recent increases in the fossil record of this group, the scarcity of complete specimens still restricts interpreting their detailed anatomy, ecology, and evolution.*



*Here, we report a new taxon of derived alvarezsaur, **Jaculinykus yaruui** gen. et sp. nov., from the Late Cretaceous of Mongolia, which represents a nearly complete and articulated skeleton.*

*Its well-preserved manus has only two fingers, composed of a hypertrophied digit I and greatly reduced digit II, which implies an intermediate condition between the tridactyl manus of *Shuvuuia* and monodactyl manus of *Linhenykus*.*

*Notably, the preserved posture of the specimen exhibits a stereotypical avian-like sleeping position seen in the troodontids *Mei* and *Sinornithoides*.*

*Evidence of this behavior in the alvarezsaur *Jaculinykus* suggests that stereotypically avian sleeping postures are a maniraptoran synapomorphy, providing more evidence of bird-like traits being distributed broadly among avian ancestors.*

[Images are from this paper.]



**Zoology.**

Formerly, L., et al (2023) **Molecular evidence of anteroposterior patterning in adult echinoderms.** NATURE 623:doi.org/10.1038/s41586-023-06669-2 (available as a free pdf)

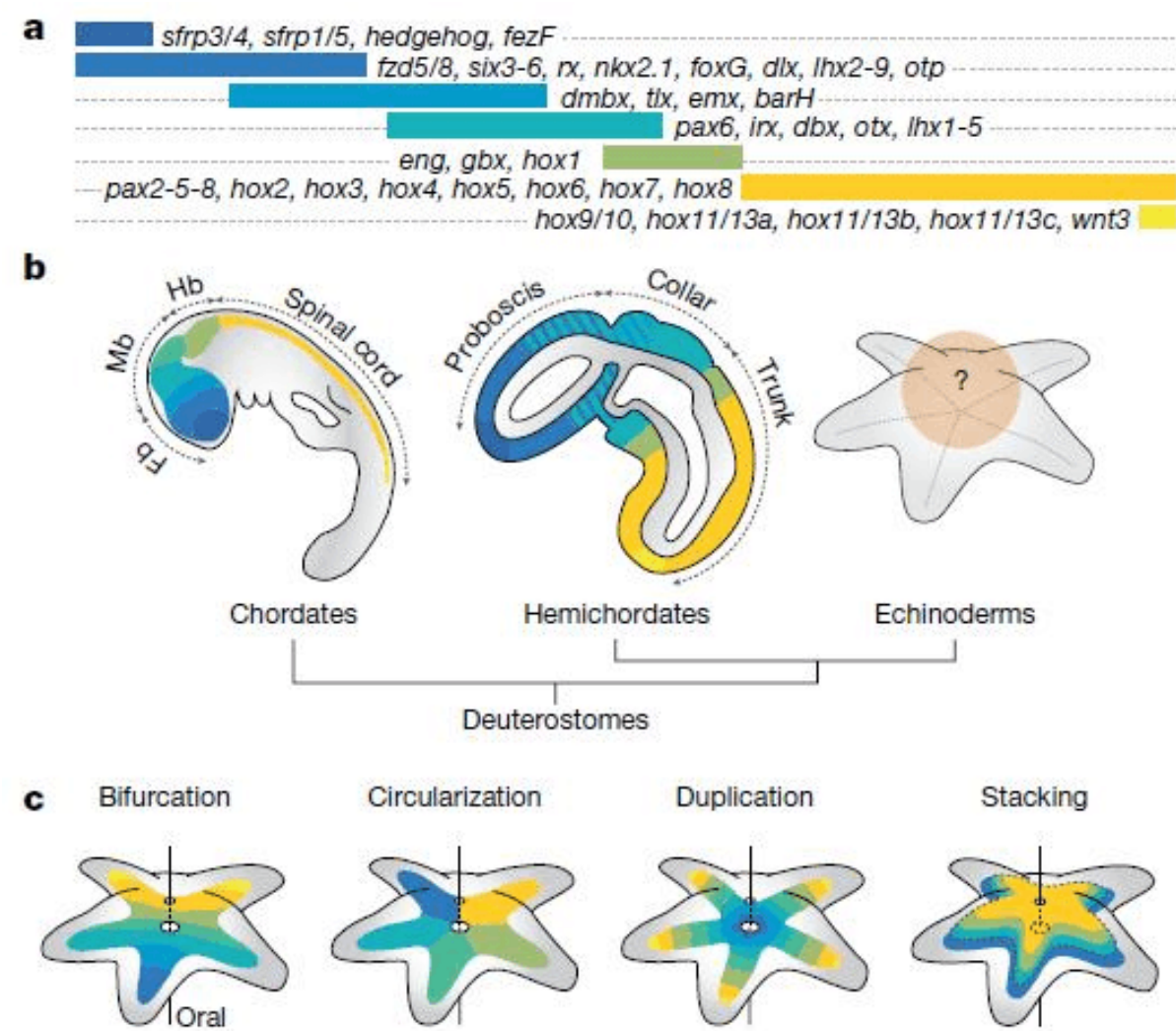
[Pentaradial echinoderms are starfish with five-part symmetry, which is a puzzle because they evolved from ancestors with bilateral symmetry.]

Authors’ abstract: *The origin of the pentaradial body plan of echinoderms from a bilateral ancestor is one of the most enduring zoological puzzles. Because echinoderms are defined by morphological novelty, even the most basic axial comparisons with their bilaterian relatives are problematic.*

*To revisit this classical question, we used conserved anteroposterior axial molecular markers to determine whether the highly derived adult body plan of echinoderms masks underlying patterning similarities with other deuterostomes.*

*We investigated the expression of a suite of conserved transcription factors with well-established roles in the establishment of anteroposterior polarity in deuterostomes and other bilaterians using RNA tomography and in situ hybridization in the sea star Patiria miniata.*

*The relative spatial expression of these markers in P. miniata ambulacral ectoderm shows similarity with other deuterostomes, with the midline of each ray representing the most anterior territory and the most lateral parts exhibiting a more posterior identity.*



*Strikingly, there is no ectodermal territory in the sea star that expresses the characteristic bilaterian trunk genetic patterning programme.*

*This finding suggests that from the perspective of ectoderm patterning, echinoderms are mostly head-like animals and provides a developmental rationale for the re-evaluation of the events that led to the evolution of the derived adult body plan of echinoderms.*

[Images are from this paper. ‘A’ shows the genes responsible for body plans of animals, ‘B’ is their disposition in categories of animals, and ‘C’ shows how starfish are basically heads on top of legs as a result of stacking of genetic development on top of each other instead of growing linear like the rest of us.]



Notar, J.C., et al (2023) **Learning without a brain: classical conditioning in the ophiuroid *Ophiocoma echinata*.** BEHAVIORAL ECOLOGY AND SOCIOBIOLOGY 77:doi.org/10.1007/s00265-023-03402-x

Authors’ abstract: *Brittle stars (Class Ophiuroidea), like all echinoderms, lack centralized nervous systems, having instead five radially arranged nerve cords joined by a central nerve ring.*

*Although operant and classical conditioning have been demonstrated in a limited number of studies in sea stars (Class Asteroidea), members of the other echinoderm classes remain relatively untested.*

*We examined whether individuals of the ophiuroid species Ophiocoma echinata were able to learn an association between a period of darkness and the presentation of a food reward.*

*Ophiuroids in an experimental group were trained by presenting food during a 30-minute period of darkness, while control group animals were fed under regular daytime room lights many hours after a period of darkness of the same duration.*

*After the training period, the experimental group demonstrated they had learned to associate the two cues by regularly emerging during the dark period even when no food was presented.*

*The untrained control animals, as well as pre-training experimental animals, did not emerge during the dark periods when no food was presented. Once trained, experimental animals emerged significantly more times than control animals during dark periods without food.*

*This study shows that classical conditioning is possible in a class of animals that lacks a centralized nervous system. Previously, researchers have found only limited evidence for this type of learning in echinoderms.*

*Like other echinoderms, ophiuroids lack a brain or centralized ganglion, possessing instead a decentralized nervous system made of five radial nerve cords joined by a central ring.*

Edwards, W.I., et al (2023) **Leaf sponge tool use by Buraiga chimpanzees, *Pan troglodytes schweinfurthii*, in Kibale National Park, Uganda.** AFRICAN JOURNAL OF ECOLOGY 61:doi.org/10.1111/aje.13163 (available as a free pdf)

Authors’ abstract: *Chimpanzees (Pan troglodytes) are avid tool users, although tool uses and functions vary among communities. Some chimpanzees use stones or wood in extractive foraging to crack open nuts, whereas others use long stems to consume termites or ants.*

*Leaf sponges are versatile and widespread tools used by chimpanzees, created by crumpling leaves in the mouth and then using the hands to immerse the tool to procure liquids from difficult-to-access locations.*

*Here we describe leaf sponge use by two female chimpanzees in Kibale National Park, Uganda, documenting for the first time tool use in the Buraiga chimpanzee community.*

**Environmental Science.**

Hakkinen, H., et al (2023) **Global terrestrial invasions: Where naturalised birds, mammals, and plants might spread next and what affects this process.** PLOS BIOLOGY 21:doi.org/10.1371/journal.pbio.3002361 (available as a free pdf)

Authors’ abstract: *More species live outside their native range than at any point in human history. Yet, there is little understanding of the geographic regions that will be threatened if these species continue to spread, nor of whether they will spread.*

*We predict the world’s terrestrial regions to which 833 naturalised plants, birds, and mammals are most imminently likely to spread, and investigate what factors have hastened or slowed their spread to date.*

*There is huge potential for further spread of naturalised birds in North America, mammals in Eastern Europe, and plants in North America, Eastern Europe, and Australia.*

*Introduction history, dispersal, and the spatial distribution of suitable areas are more important predictors of species spread than traits corresponding to habitat usage or biotic interactions. Natural dispersal has driven spread in birds more than in plants.*

*Whether these taxa continue to spread more widely depends partially on connectivity of suitable environments. Plants show the clearest invasion lag, and the putative importance of human transportation indicates opportunities to slow their spread.*

**Human Prehistory.**

Gaudzinski-Windheuser, S., et al (2023) **Beaver exploitation, 400,000 years ago, testifies to prey choice diversity of Middle Pleistocene hominins.** SCIENTIFIC REPORTS 13:doi.org/10.1038/s41598-023-46956-6 (available as a free pdf)

*Authors’ abstract: Data regarding the subsistence base of early hominins are heavily biased in favor of the animal component of their diets, in particular the remains of large mammals, which are generally much better preserved at archaeological sites than the bones of smaller animals, let alone the remains of plant food.*

*Exploitation of smaller game is very rarely documented before the latest phases of the Pleistocene, which is often taken to imply narrow diets of archaic Homo and interpreted as a striking economic difference between Late Pleistocene and earlier hominins. We present new data that contradict this view of Middle Pleistocene Lower Palaeolithic hominins: cut mark evidence demonstrating systematic exploitation of beavers, identified in the large faunal assemblage from the c. 400,000 years old hominin site Bilzingsleben, in central Germany.*

*In combination with a prime-age dominated mortality profile, this cut mark record shows that the rich beaver assemblage resulted from repetitive human hunting activities, with a focus on young adult individuals. The Bilzingsleben beaver exploitation evidence demonstrates a greater diversity of prey choice by Middle Pleistocene hominins than commonly acknowledged, and a much deeper history of broad-spectrum subsistence than commonly assumed, already visible in prey choices 400,000 years ago.*

**FREE STUFF ONLINE**

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

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

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

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

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

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

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

They also publish a free bulletin OLD RADIO TIMES, available at [www.otrr.org/?c=times](http://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](http://www.archive.org/details/pulpmagazinearchive?&sort=-downloads&page=2) Books in the public domain are free from [www.gutenberg.org](http://www.gutenberg.org)