

OPUNTIA 502



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.

GEESE MAY SAFELY GRAZE

2021-05-30

photos by Dale Speirs

As I strolled out one day (if I may coin a phrase), the weather was perfect for both humans and Canada geese on Prince’s Island. The island is on the Bow River on the north side of the downtown core. The cover photo was taken from one of the many pedestrian bridges connecting to the island, looking south at the park. No cars are allowed on the island, which is Calgary’s central gathering place, like Central Park in Manhattan.





CURRENT EVENTS: PART 21

by Dale Speirs

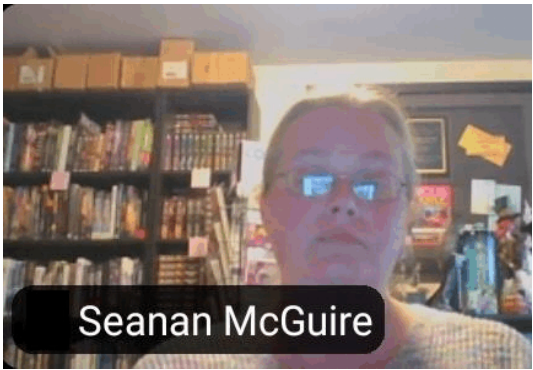
[Parts 1 to 20 appeared in OPUNTIA's #474, 475, 479, 480, 483, 484, and 488 to 501.]

Balticon 55.

The Baltimore Science Fiction Society, Maryland, had its annual convention Balticon online for the weekend of May 28 to 31 (www.balticon.org). I would never attend in person nor pay to view the seminars, but they offered the panels as free Zoom sessions. The schedule had only one item that interested me. Calgary is on Mountain Time, two hours behind Eastern Time, so I was able to conveniently view the panel in the afternoon.

“Writing Fantastic Diseases In A Post-COVID World” was a timely subject. There are now many apocalyptic science fiction novels about plagues which are obsolete because an entire generation has learned what a real pandemic is like. The panelists were John Wiswell, Jeanne Adams, Seanan McGuire, J.L. Gribble, and moderator D.H. Aire.

The blurb was: *The past year has taught us a lot of valuable and interesting lessons about the way pandemics can affect society at all levels. Now that you can assume that your audience has first-hand experience at living through a pandemic, how will this change how you write about similar situations? What are new ways to convey feelings of horror, distrust, and paranoia? If you're a writer of future (or near-future) societies, what do you plan on changing about your world building?*



McGuire’s books had been based on the assumption that people would work together during a disaster, which COVID-19 refuted.

She hadn’t expected a flood of misinformation would distort public and political reaction. Quarantine violations by selfish people

were a serious problem that much disaster fiction never considered.

McGuire said that we will not go into a post-COVID world. We’ll find out how long the variants keep coming but the effects of COVID-19 will persist. People will not see an end to the virus.



Gribble had worked with health care professionals and discovered their views did not match those of the general public. Her job involved HIV research, which was no guide for COVID-19. Fiction about HIV plagues missed the mark when extrapolated by fiction writers. She said COVID-19 accidentally fixed global warming, a side effect for future plague fiction writers to consider.

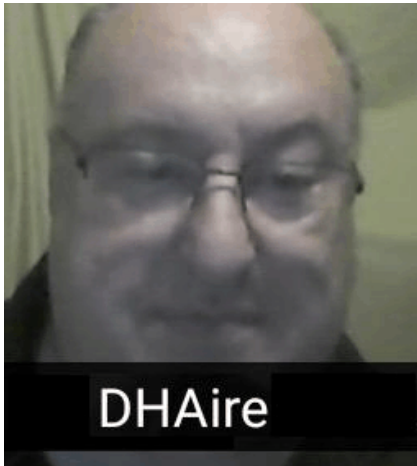
Adams was in the process of writing a plague novel when COVID-19 arrived. She had to stop because the reality did not match her research. During the 1918 pandemic, people obeyed the government more readily than during 2020. She said she would never have guessed in a million years that toilet paper would be an issue, an unexpected event that science fiction writers missed. “*This was a test run and we failed.*”

She said that the teenaged generation has been indelibly marked by the pandemic, which will affect future events as they go out into the world. They saw how the present system failed and will make changes.

Wiswell has had immuno-compromised health problems most of his life. He said it was interesting to see how people reacted to what he and similar patients have dealt with for years.

The race for the cure was different than what writers discoursed about. No grandfatherly scientists working on vaccines in a university but instead

multinational corporations off stage saved the world. Future pandemic fiction will have to pay more attention to skepticism, not just conspiracy theory but well-intentioned doubts.



Aire said he buried more members of his congregation in 2020 than in all the previous decade. He began to wonder who of his friends would disappear next. The gaps in his friendships will not go away.

The panelists then had a general discussion about blame fixing. Future plague novels will have to deal with such backbiting. The 1918 influenza was called Spanish flu, even though it did not originate there. COVID-19 is being blamed on a Chinese laboratory experiment gone wrong. Science fiction writers will have to take into account political machinations such as shunning of victims, anti-vaxxers, anti-maskers, and vaccine distribution.

The panel was well done. The participants stayed on topic, and offered practical thoughts based on their experiences. The panel was recorded, so check back to the Balticon Website for a podcast.

The Future Of Meetings.

Calgary has long had a vigorous philatelic community. The main organization is the Calgary Philatelic Society, which will celebrate its centennial in April 2022. It has about 150 members.

The Calgary Association of Philatelic Exhibitors has about a dozen members, who compete in stamp shows around the world. The British North America

Philatelic Society has a regional group in Calgary who muster a dozen members. (I belong to all three.) There were two junior clubs, one for the north side of the city and the other for the south side.

Once the pandemic set in during middle 2020, the CPS, CAPE, and BNAPS went to Zoom meetings. The junior clubs shut down completely. The CPS averaged about 30 participants during Zoom meetings and the two smaller groups were unchanged.

Prior to the pandemic, the CPS monthly meetings had about 50 to 80 members attending for the programme, a silent auction, and circuit books of stamps being sold by members. Present indications are that by this autumn, Calgary will be back to normal and CPS face-to-face meetings will resume.

For CAPE and BNAPS, the consensus is that they may stay permanently as Zoom meetings. Those who want to meet face-to-face can do so at CPS meetings every month.

The two small meetings required dedication to attend prior to the pandemic, especially since most of the meetings were in winter. With no alternative, we drove to meetings in -20°C weather at night. For the last year, we have been enjoying the meetings from the comfort of our own homes. No one wants to give up that luxury.

One advantage of the Zoom meetings was that all three clubs could import speakers from elsewhere at no expense. During the pandemic, we had presenters from British Columbia, Ontario, Oregon, and Texas, as well as elsewhere in Alberta. That could never have happened for live meetings. Furthermore, many of us including myself, attended Zoom meetings of clubs elsewhere on the continent. I know the same was true for science fiction clubs.

The places that catered to such small meetings may see a loss citywide. Calgary, like any large city, has hundreds of social and hobby groups who rented rooms before the pandemic but now see the benefits of Zoom.

The advantage is not only for regular meetings. Every club usually has a separate executive meeting to handle behind-the-scenes business. The majority of those will undoubtedly stay on Zoom. No need for a host to freshen up the house for visitors and set out coffee and snacks. No driving at night.

The CPS was founded in April 1922 by Dr Edward George Mason. Calgary, and the world, had just come through the 1918 influenza pandemic. Mason had been director of a hospital that handled a flood of influenza patients. Those early stamp collectors had a common background with us stamp collectors today who will soon celebrate 100 years of organized philately in Calgary.

Zoom, email, texting, and the World Wide Web ameliorated our pandemic, and will permanently alter society afterwards. Online services will not sink back to what they were before the pandemic. My local stamp dealer still keeps a storefront, but the majority of his business is done sitting at a computer.

We now know that meetings can be routinely held online, with only occasional face-to-face meetings required. Many more services and goods are now permanently online, such as banking, food delivery, and mail order. The future is here.

Seen In The COVID-19 Literature.

As of June 2, Canada had 1,385,265 cases of COVID-19, with 25,612 deaths and 24,513,708 vaccinations including me. Our population is about 38,000,000.

Yang, Q., et al (2021) **Just 2% of SARS-CoV-2-positive individuals carry 90% of the virus circulating in communities.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2104547118 (available as a free pdf)

Authors’ abstract: *We analyze data from the fall 2020 pandemic response efforts at the University of Colorado Boulder, where more than 72,500 saliva samples were tested for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) using qRT-PCR. All samples were collected from individuals who reported no symptoms associated with COVID-19 on the day of collection.*

From these, 1,405 positive cases were identified. The distribution of viral loads within these asymptomatic individuals was indistinguishable from what has been previously observed in symptomatic individuals.

Regardless of symptomatic status, ~50% of individuals who test positive for SARS-CoV-2 seem to be in noninfectious phases of the disease, based on having low viral loads in a range from which live virus has rarely been isolated.

We find that, at any given time, just 2% of individuals carry 90% of the virions circulating within communities, serving as viral “supercarriers” and possibly also superspreaders.

DeMora, S.L., et al (2021) **Reducing mask resistance among white evangelical Christians with value-consistent messages.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2101723118 (available as a free pdf)

Authors’ abstract: *Public health experts have advocated for wearing protective face masks to combat the COVID-19 pandemic, yet some populations are resistant. Can certain messages shift attitudes toward masks? We investigate the effect of value-consistent messages within a mask-skeptical population: White evangelicals in the United States.*

An experiment within a national survey of White evangelicals (n = 1,212) assigned respondents to one of three conditions: One group was given a religious message equating mask use with loving your neighbor, another was given a message by Donald Trump saying mask use is patriotic, and a control group received no message.

Those exposed to the religious message were more likely to see mask use as important and were more supportive of mask mandates. Republican evangelicals exposed to the patriotism message had similar responses.

These findings show that messages that align with individuals’ core values, in this case, religious tenets and patriotism, can shift certain views on mask use and government mask policies to combat COVID-19, even among a comparatively mask-resistant group.

Zhang, L., et al (2021) **Reverse-transcribed SARS-CoV-2 RNA can integrate into the genome of cultured human cells and can be expressed in patient-derived tissues.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2105968118 (available as a free pdf)

Authors’ abstract: *An unresolved issue of SARS-CoV-2 disease is that patients often remain positive for viral RNA as detected by PCR many weeks after the*

initial infection in the absence of evidence for viral replication. We show here that SARS-CoV-2 RNA can be reverse-transcribed and integrated into the genome of the infected cell and be expressed as chimeric transcripts fusing viral with cellular sequences.

Importantly, such chimeric transcripts are detected in patient-derived tissues. Our data suggest that, in some patient tissues, the majority of all viral transcripts are derived from integrated sequences.

Prolonged detection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) RNA and recurrence of PCR-positive tests have been widely reported in patients after recovery from COVID-19, but some of these patients do not appear to shed infectious virus.

We investigated the possibility that SARS-CoV-2 RNAs can be reverse-transcribed and integrated into the DNA of human cells in culture and that transcription of the integrated sequences might account for some of the positive PCR tests seen in patients. In support of this hypothesis, we found that DNA copies of SARS-CoV-2 sequences can be integrated into the genome of infected human cells.

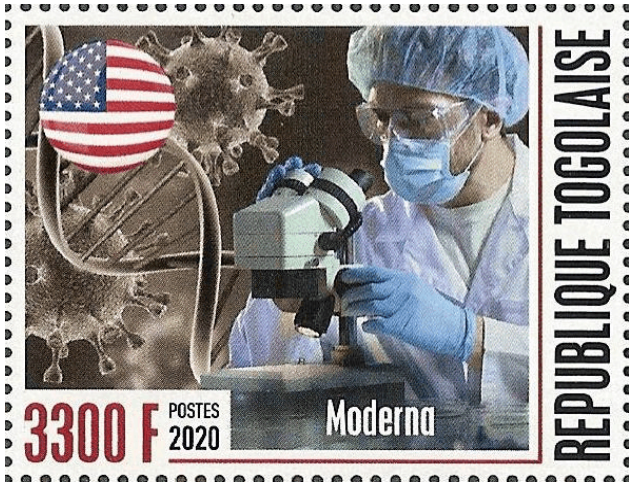
We found target site duplications flanking the viral sequences and consensus LINE1 endonuclease recognition sequences at the integration sites, consistent with a LINE1 retrotransposon mediated, target-primed reverse transcription and retroposition mechanism.

We also found, in some patient-derived tissues, evidence suggesting that a large fraction of the viral sequences is transcribed from integrated DNA copies of viral sequences, generating viral-host chimeric transcripts. The integration and transcription of viral sequences may thus contribute to the detection of viral RNA by PCR in patients after infection and clinical recovery.

Because we have detected only subgenomic sequences derived mainly from the 3' end of the viral genome integrated into the DNA of the host cell, infectious virus cannot be produced from the integrated subgenomic SARS-CoV-2 sequences.

Philately.

A few of my latest acquisitions. Stamps not to actual size or at same scale with each other.



Homenatge als esforços de tothom davant de la COVID-19

1,28€

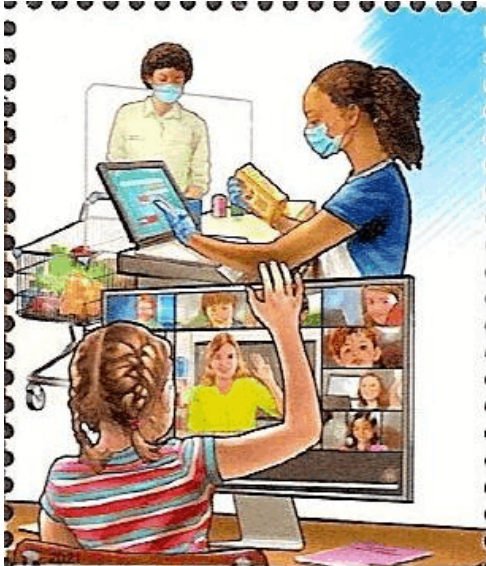


Postes 2021

PRINCIPAT D'ANDORRA

FARRÉS & CORTÉS

Philaposte



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Gestión de residuos Covid-19

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Gestión de residuos Covid-19
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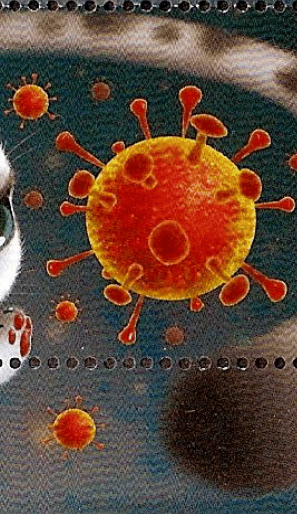
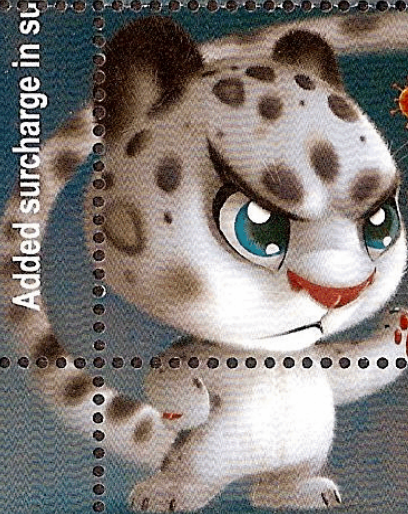
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KYRGYZSTAN
2020

СТОП COVID-19!



LIBERIA

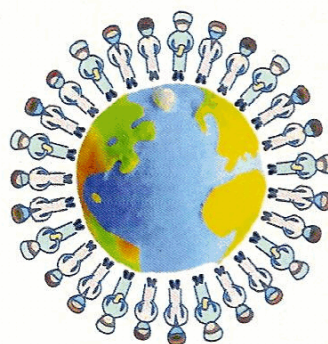
\$1200



International Day of Family Remittances
16 June



2020 UPU



Family Remittances

A crucial means for socio-economic recovery from the COVID-19 pandemic

STILL CAN'T LOSE WEIGHT FOR SOME UNKNOWN REASON
by Dale Speirs



A few of the local
cupcakes imported into
Chez Opuntia.

At left: Just sitting
around the campfire.



Gardening for lazy
people.

Bottom left: Dahlias

Upper right: Daisies

Bottom right: Rose





At left: A butterfly in the cupcake garden.

Rest of page: Assorted swirls.



LITTLE FREE LIBRARIES: PART 6
photos by Dale Speirs

[Parts 1 to 5 appeared in OPUNTIA #378, 427, 466, 482, and 489.]

Bottom left: Seen in the Ramsay district on 17 Avenue SE. Like parent, like child.

Upper right: There are homeowners who believe it isn't a real yard unless filled with clutter. Located on 8 Avenue SE in the Inglewood district.

Bottom right: On 23 Avenue NW in the Capitol Hill district. The little side compartment was filled with the same wood chips as on the ground. I'm sure there was a reason.





Left and below: St Stephen church on 14 Avenue SW in the Beltline.

Right: A decrepit LFL in Capitol Hill on 17 Avenue NW. Poorly maintained and on a wobbly pole. I know exactly why too. The bungalow is obviously a teardown and will eventually be replaced by townhouses. Why bother maintaining something that will soon be gone?



Two views of a LFL on 8 Avenue SE in Inglewood.



Sort of a cross between a food bank and a LFL.



ACTION ADVENTURE ON THE AIR: PART 6

by Dale Speirs

[Parts 1 to 5 appeared in OPUNTIA's #426, 447, 476, 487, and 494.]

Twisted.

THE UNEXPECTED was a syndicated anthology radio series that aired in 1947 and 1948, and repeated in subsequent years by stations who bought the series at a later date. The 15-minute episodes are available as free mp3s from the Old Time Radio Researchers Website at www.otrrlibrary.org The stories were like THE WHISTLER, with a twist at the end.

“Passport To Danger” aired on 1948-10-10 and was written by Robert Lippert and Frank Burt. A clichéd title if ever there was one. The narrator Scott Marshall had gone a-roving to Transrovia, somewhere in the Balkans. He was attempting to leave as a revolution broke out and street fighting began.

He watched a blond woman in a blue cape fight a skirmish as he entered his country’s embassy. The charge d’affaires Henderson asked Marshall if he would mind doing a favour by taking a briefcase of important documents to Rome. For obvious reasons Marshall declined.

Notwithstanding that, Henderson rubber-stamped a curious symbol into Marshall’s passport and told him that his contact in Rome would have a similar marking in his passport. Henderson handed him a battered briefcase. “*There’s no danger involved*”, he burred. Well, if you can’t trust your government, who can you trust?

A one-eyed man, subsequently named as Gavage, followed Marshall on his way to the ship, pulled a knife, and tried to grab the briefcase. They struggled but the contest was won by a third party, a blond woman in a blue cape. She nailed Gavage in the ear with a rock.

After introducing herself as Lisa, she drove away. While they had been talking, Gavage took off. Marshall made the riverboat in time but suddenly turned back on the gangplank when he saw Gavage waiting on deck.

Instead, Marshall took a footpath over the mountains. He stopped overnight at an inn. The inevitable Gavage knocked on his door, but Lisa once again

appeared. Marshall gave Lisa the papers and let Gavage take the empty briefcase. In the meantime, Lisa scarpered.

The next day Marshall made it back to the riverboat and Lisa. In Rome, Marshall met his contact. He proudly handed over the papers, only to be told they were worthless. The real papers were hidden in the lining of the briefcase.

Sailing, Sailing, Over The Bounding Main.

“A Mid-Sea Dilemma” by A.H. Morino (1908 June, BLACK CAT, available as a free pdf from www.archive.org) began with the ship Oklahoma receiving a distress call from the ship Seattle. It hove to and sent a party on board.

The problem was a giant python being transported to a zoo had gotten loose. At the time, some of the crew had been preparing to hunt big sharks, which involved stuffing hunks of meat with dynamite set with detonators. The python swallowed all the bait and was now a time bomb that would blow out the sides of the ship.

Fortunately the python went slithering about the deck. It saw the Oklahoma longboat tied up to the ship and slid down into it. The crew quickly released the lines and let the boat drift out into the water. The captain got his rifle and took a shot at the python. The explosion obliterated both beast and boat. The Seattle was saved.

The ships made harbour safely and the story ended: “*I wonder why it is,*” said Fanny Richards to her cousin, as they were returning from their trip to the Brooklyn Navy Yard, “*that the Oklahoma has one boat marked Seattle. Is that where it was made ?*”

THE VOYAGE OF THE SCARLET QUEEN aired on radio for a brief run in 1947 and early 1948. The episodes were written by Gil Doud and Robert Tallman. They are available as free mp3s from the Old Time Radio Researchers at www.otrrlibrary.org

The ketch Scarlet Queen was captained by Philip Carney, who introduced each chapter by reading an extract from his captain’s log. So as you see, Captain Kirk wasn’t the first to do that. His name was spelled variously as Kearney or Karney (which was how it was pronounced), but is most often written as Carney, which I will use.

Carney and his crew sailed from one port to another, and one adventure to another. The route was a zigzag, as befits a tramp freighter, but the locations were authentic. The first episode began with them leaving San Francisco, then meandering about the South Pacific. The First Mate was Red Gallagher.

Carney's employer was Ku Chei Kang, whose trading company owned the ship. Their mutual enemy was a Portuguese crime lord named Francisco Constantino. He operated out of Macau, at that time a Portuguese enclave in China, not far from Hong Kong.

The ketch was a sailing ship which even then was obsolete, but did have the advantage of much cheaper operating costs. In the postwar world, the profit margin was slim enough, so every penny counted for marginal operators such as Kang.

"The Story Of The Eight Historic Periods" aired on 1947-08-21. The Scarlet Queen arrived in the port of Swatow, China. Upon docking, the ship received a flowery welcome from police officers who praised Philip Carney and Red Gallagher for their assistance to China in a previous episode. The two men were then invited at the point of a gun to accept the honour of police custody.

Not real police as transpired but henchmen working for all-around bad guy Col. Smythe-Forrester and a Portuguese adventurer Avala, henchman of Constantino. The subject was the \$10 million reward for a treasure both Kang and Constantino wanted, of which Constantino wanted half in exchange for leaving Kang and the Scarlet Queen alone.

As incentive, Smythe-Forrester had kidnapped a fair maiden. Many negotiations ensued, involving much shouting and the occasional gunshot. The Colonel abruptly departed this world from lead poisoning administered by Avala. He had his own ideas about trade relations and job promotion opportunities.

Eventually the bodies stopped piling up and the crew escaped. Not a lot happened, other than a bunch of bit-part characters died.

"The Beautiful Girl In The Bargain Basement" aired on 1947-11-13. The Scarlet Queen had arrived in Macau with the \$10 million in treasure, which was immediately sequestered in Kang's warehouse. From there, the ship moved to Hong Kong, where the action of the episode took place.

The Scarlet Queen went into drydock for overhauling. Carney paid off the crew and gave them a week's leave. He went to Kang's office where waiting for him was none other than Constantino. He was holding Henrietta Hainley, Carney's girlfriend, as a hostage. From there to Constantino's mansion where there was a touching reunion. Lost love, angst, and all that.

Constantino was playing the game both ways. He gave Carney a choice of telling him where the treasure was or, in the alternative, telling Hainley they were through and she should marry Constantino. If nothing else, he was a good provider.

There were predictable alarums and excursions. Carney and Hainley escaped, at which point the episode turned into a soap opera. Much romantic mooning about, but Hainley was tired of a sailor who was seldom home. She dumped him and the Scarlet Queen set sail for new adventures.

Bogie And Baby.

BOLD VENTURE was a syndicated old-time radio series that aired during the 1951-52 season and is available as free mp3s from www.otrrlibrary.org. It 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 Kuan Yen Statue” aired on 1951-04-02. Slate Shannon had been hired by Sam Choo, a dealer in fake antiquities, to pick up an incoming Chinese woman named Mi Long, who was supposed to be carrying with her a statue called the Kuan Yen.

The statue was evidently a symbol of Mother China (their words), to be used by the righteous people to rule the Middle Kingdom. That was notwithstanding the fact that China had been a People’s Republic for two years. There wasn’t going to be a counter-revolution, with or without a statue.

Shannon was beaten up and Mi Long was murdered by a man named Jeffery Zender, who really wanted the statue. After he departed, Shannon awoke and met up with Choo’s assistant Tanar. She told him she was arranging a double funeral, as Choo had been the second victim, so the two would be buried together.

Zender didn’t attend the funeral, as he was busy kidnapping Sailor Duval in the hopes that she had the statue. Tanar, working independently, thought Shannon had it. Both villains were disappointed and angry. There was a pause for King Moses to summarize the story so far a la calypso.

The grand finale was in Choo’s shop, where Shannon explained matters to Zender with fisticuffs and got his revenge. After the police arrived and hauled Zender away for murder and kidnapping, Shannon found the statue on display in the clutter of Choo’s shop. It was the old purloined letter gag, excepting that it had cost two lives.

“The Tears Of Siva” aired on 1951-06-11. The action began in Slate Shannon’s hotel when his friend Joe Bishop returned from a voyage to Haiti as First Mate. Bishop asked him to store in his safe some star sapphires called The Tears of Siva (pronounced “see-vah”). Just as the gems were about to be handed over, a hoodlum named Tommy walked in, shot Bishop dead, and left with the sapphires.

Tommy’s boss was Julius Kordavon, a fat man played as Sydney Greenstreet. He appreciated beauty and was annoyed at Tommy’s boorishness. Kordavon had been watching chorus girls in a nightclub when Tommy arrived with the package. He told Tommy to stop and admire the beauty of the women. “*Chorus girls? Is that what’s supposed to send me?*”, said Tommy, which immediately made one suspicious as to his biological inclinations.

Kordavon opened the package and tried to interest Tommy in the beauty of the stones, but he only wondered how much they would sell for. Alas, the stones were fake. Kordavon was furious. Tommy was put out: “*I knocked off a man for two marbles.*” Imagine how Bishop’s ghost felt.

King Moses then summarized the plot so far in calypso form. Since only 6m40s had elapsed in the episode, one presumes this was after a commercial break in the original airing. Kordavon arrived at the hotel and sparred with Shannon, fishing for any information about Bishop. He failed and quickly departed.

Shannon knew Bishop had come in on a tramp steamer, so he and Sailor Duval went down to the docks. They found the captain stabbed to death in his cabin. That decided Shannon to visit Haiti in Bold Venture. Kordavon tracked them there. A fresh set of characters appeared in Haiti, speaking with bad French accents. I’ve met Haitians and know what they sound like, and this wasn’t it.

Kordavon and Tommy visited Duval and menaced her while Shannon was investigating. They were good at that. Since they were in Haiti, the writers threw in a voodoo mama, and other scenes of depravity and clichés, mostly the latter. Shannon was handed the real sapphires. The denouement was about as expected. Shots were fired, boats chased each other, and the sapphires ended up in police custody. Shannon and Duval ended up in each other’s arms.

Sharp Practice.

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

Lime was a confidence man constantly traveling throughout postwar Europe. He met a nasty end in the original movie. In the opening narration of the radio episodes, Welles told the audience that these stories were set before Lime was shot dead fleeing through the sewers of Vienna like a rat.

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

The most distinctive part of the radio series, and what set it apart from other radio shows, was the theme and incidental music, played on a zither by Anton Karas. Even today it would stand out on a television series. As part of the radio episodes, the music could be considered as important as Welles' rich voice. The existing mp3s are somewhat distorted from old tape recordings but allowing for that they cannot fail to impress.

“Art Is Long And Lime Is Fleeting” was aired on 1951-11-09. Harry Lime was in Paris, populated at that time by people who spoke with Hollywood's idea of a French accent. He set up a scam, buying in a cheap gallery for 12,000 francs a painting that looked like it might be a Renoir.

It wasn't but Lime framed it, had the word 'Renoir' engraved on a plaque attached to the frame, and hung it in his hotel apartment. His target was a pair of spinsters Flora and Aurora. He put on a show of reluctance at selling the painting but eventually let the women talk him into parting with it for 5,000,000 francs.

The plan went awry when Paul Besant arrived. He and Lime had been partners in a previous scam that went wrong. Besant had just been released from two years in a Luxembourg prison, while Lime had skipped to the Riviera with the loot.

Besant had a gun but Lime talked him out of murder by offering him 2,000,000 francs in the Flora and Aurora deal. Besant was roped into the scam, posing as an outside art dealer to validate anything Lime might say. Neither trusted the other for a moment and for good reason.

The women brought in their own art expert, who declared it genuine and worth 20,000,000 francs. That overwhelmed Besant, who grabbed the painting and ran. The foot pursuit ended up with the painting destroyed and Besant arrested by the gendarmes. The art expert identified himself as a Sûreté undercover agent.

In the epilogue, the agent told Lime he knew the painting was a fake. He would not press charges since the prisons of Paris were full enough already. Lime was stupefied at his narrow escape.

“In Pursuit Of A Ghost” aired on 1951-11-16. Harry Lime narrated his misfortunes when he was caught up in a revolution in South America in the

autumn of 1945. He told the listeners that he would not name the country because certain people there were still looking for him.

Lime met a Cockney expatriate in a tavern, who told him a local general had just arranged financing for a revolution, courtesy of a New York City mobster code-named El Sorro (The Fox). The latter brought in \$1 million with which to buy guns and ammunition.

Lime figured there was an opportunity to intercept some of that cash. He bluffed his way into General Valdez's headquarters as a supposed friend of El Sorro. The bluff backfired as El Sorro had absconded to Havana, Cuba, with the cash, leaving Valdez high and dry financially.

With various menaces and threats, mostly from Valdez's giant aide José, Lime was sent to Havana to recover the loot. Trouble was, he had never met El Sorro and had no idea of what the man looked like or where he might be residing. Before departing, he went to the bar and met an attractive woman named Counsuela.

A yacht took Lime as an unwilling passenger to Havana. El General was on board but stayed on the ship because his presence on land would create trouble with the local dictator. (Remember that this was before the Communist takeover.) Lime was to go ashore and convince El Sorro to come aboard with the cash.

It took a lot of fancy talking but Lime succeeded. Before going back to the ship, Lime convinced El Sorro to give him a percentage, \$100,000 to be exact, which Lime secreted about his person. On board the yacht, El Sorro's days were numbered. So were all the revolutionaries, as the junta's men invaded the ship with guns blazing.

The leader of the death squad was the Cockney, actually the chief of the secret police, who was very good with languages and accents. He had used Lime as a cat's paw to flush out the revolutionaries and the cash. In appreciation for Lime's unknowing help, he generously allowed Lime to leave with just the clothes he was wearing.

In the epilogue, Lime smirked that his only comfort was the feel of the \$100,000 in his jacket pocket as he left the country.

BWAH HA! HA!: PART 15

by Dale Speirs

[Parts 1 to 14 appeared in OPUNTIA's #371, 372, 378, 388, 391, 393, 397, 409, 422, 427, 434, 451, 475, and 491.]

Why Would Anyone Want To Rule The World?

Seriously though, why? All the world's problems would be blamed on Herr Doktor Mad Scientist. He would be continuously running about putting out political fires. Historical revisionists and toxic tweeters would harass him. He would have little time to work in his laboratory. His beautiful daughter would probably go through several divorces and a stay in a rehabilitation clinic.

Nonetheless they keep trying. Consider if you will, MESA OF LOST WOMEN, a 1953 movie written by Herbert Tevos. It is available from Mill Creek Entertainment on either their "Sci-Fi Classics" or "Mad Scientist Theatre" 50-movie DVD boxed sets.

The movie had a disjointed beginning that flopped about like a fish stranded on a beach. Even more annoying, it was narrated loudly throughout, mostly explaining the obvious that the viewer could see anyway. The soundtrack was very annoying, with a guitar/piano composition which made up for its mediocrity by substituting volume.

Eventually the preliminaries were out of the way and the plot shifted into second gear. Set in Mexico, the characters revolved around Zarpa Mesa, the lair of Dr Aranya. His experiments all had to do with spiders, using their hormones to create giant tarantulas, beautiful spider women, and malformed dwarves (the formula didn't work on men).

The spider women could regenerate themselves if they lost a limb or internal organ. Their greatest talent was their ability to climb the cliffs of the mesa while wearing high-heeled shoes. The lead spider woman was named Tarantella.

Aranya was going to rule the world with the combination of giant spiders and spider women. His name was the Spanish word for spider, so he was obviously using a *nom de guerre*. In the first part of the movie, he wore a clouded lens over a malformed left eye, but during the finale he had no glasses and his eyes were normal. That continuity error was never explained.

Dr Leland Masterson came calling to the mesa laboratory and was shocked at what he saw. He declared the creatures should be destroyed, so Aranya injected him with a serum that homogenized his mind and got him put into an asylum. Eventually Masterson escaped and made his way to a cantina.

Tarantella worked there as an exotic dancer. Masterson shot her in the midst of her routine. He took hostages so he could flee and left her for dead. Since she was a spider woman she regenerated herself to good health in minutes. From there followed many excursions across the Mexican desert and back to the mesa where all the characters congregated in the laboratory.

The death toll steadily mounted as the supporting characters were eliminated. Aranya bwahed his last ha!-ha! before Masterson came to his senses and blew up the laboratory. Only the best looking couple survived, plus one spider woman in case she could get a sequel.

Just Plain Evil.

KING OF THE ZOMBIES was a 1941 movie written by Edmund Kelso. It is available from Mill Creek Entertainment on either their "Horror Classics" or "Mad Scientist Theatre" 50-movie DVD boxed sets.

These were the original zombies, not the radiation or virus induced zombies of the modern era. The movie began with a private aircraft crashing on an uncharted Caribbean island. The pilot was James McCarthy, who was flying two passengers Bill Summers (a man about town) and his black valet Jefferson Jackson.

The island was owned by Dr Miklos Sangre, who lived on it with his wife Alyce (a zombie) and his niece Barbara Winslow (the love interest for Summers and definitely not a zombie). This movie was released in 1941 May, so it was premature for the USA's entry into World War Two. However the British and other European countries that had colonies in the Caribbean were already in deep, and the area was a hive of espionage.

At first Sangre seemed to be the usual type of mad scientist, what with all the zombies roaming about, but he was using his zombie experiments as a cover for German espionage. His method of zombie production was to use hypnotism, not drugs a la Haiti.

Sangre was transmitting vital information to the Germans on a secret radio in his dungeon. He was trying to extract information about the Panama Canal defenses from an American admiral whose plane had also crashed there.

Surprisingly, for a high-tech (circa 1941) mad scientist, Sangre’s method of interrogating the admiral was to have a voodoo queen chant magical spells. Then again, the Nazis had a reputation for believing in nonsense.

Many alarums inside the mansion and across the island. Every excursion had zombies shuffling hither and yon. Jackson was plagued by zombies in particular. At first Summers and McCarthy didn’t believe him.

Summers: *When a man is dead, he’s dead.*

Jackson: *Suppose he’s dead and don’t know it?*

Jackson was hypnotized by Sangre, or rather both thought he was, and was made the head zombie. The mansion’s cook talked him out of his delusion. In Hollywood, black actors then and now were typically subordinate to the white guy (excluding politically correct rewrites of comic book superheroes). In this movie though, Jackson played a substantial and serious part in overcoming the evil of Sangre, in between playing the fool.

Sangre eventually died the hard way when he fell into a fire pit, after which the zombies were freed from his hypnotic spell. Jackson had the final line of the movie: *If there’s one thing I wouldn’t want to be twice, zombies is both of them.*

The movie was a horror comedy, with some jokes that today are considered politically incorrect. Nonetheless it is worth watching once.

Get Rich Quick With Mad Science.

“The Three From The Tomb” by Edmond Hamilton (1932 February, WEIRD TALES, available as a free pdf from www.archive.org) detailed the exploits of Dr Charles Curtlin. One by one, he raised three millionaires from the dead and convinced people they were revived by his secret process.

This touched off hysteria among those who wanted the procedure.. Mob scenes, banner headlines in newspapers, and all that. One ace reporter and his sidekick didn’t believe it. They did a break-and-enter into Curtlin’s laboratory in the standard amateur detective tradition.

The bodies of the dead men were still there. Curtlin was a brilliant plastic surgeon, and had altered the features of three imposters. After briefing them on as much detail as possible, they were to resume their lives. Not so incidentally they would take back control of their financial empires, cutting a piece for Curtlin’s benefit. The reporter exposed the imposters with trick questions. Curtlin, thus exposed, pulled a gun, and the rest was obvious. Identity theft that didn’t pay.

A more mundane approach to mad science for fun and profit was that in the story “The Einstein See-Saw” by Miles J. Breuer (1932 April, ASTOUNDING, available as a free pdf from www.archive.org) This story was about the practical application of tensor mathematics, which Einstein used as the basis for his theory of General Relativity. The math was so complicated that even Einstein had to get help from other mathematicians to learn how to use tensor equations.

The mad scientist in question was Tony Costello, who built devices that could rotate objects out of one spatial position into another. Specifically, he rotated safes of banks and jewelers into his laboratory, where he could empty the contents at his leisure.

A prying young couple interfered with him, as a result of which they found themselves rotated into four-dimensional hyperspace. They explored their bizarre surroundings and gradually figured out a plan to get back to the home dimensions. The scheme involved a clever use of tensor dynamics to swing themselves like a pendulum through the dimensions until they came to rest back in Costello’s laboratory.

When they finally reached home, they found the laboratory in ruins and Costello dead from the energy released by the swings of the pendulum. This story was an early application of Einsteinian ideas to speculative fiction and would be worth reprinting in a modern anthology.

Golden Atoms.

The Rutherford model of an atom as a nucleus with electrons orbiting around it triggered a flurry of stories in the 1920s and 1930s about life on a world that was an electron to us, or, conversely, Earth and the other planets were electrons to a bigger universe. The golden atom stories mostly died out by the late 1930s as scientists accepted that atoms were not miniaturized stellar systems.

The most famous of these was the story that started it all, “The Girl In The Golden Atom” by Ray Cummings (1919), imitated or elaborated by many other writers thereafter. Most of them used the idea as an excuse to transplant lost world stories or jungle action-adventures into science fiction. See OPUNTIA #372, 388, and 475 for some previous reviews of this type of story.

A basic problem in golden atom stories was that the hero usually could not return to the same atom or even to his own atom because of the impossibility of picking out the correct individual atom.

A workaround for this problem appeared in the short story “In Two Worlds” by Edward E. Chappelow (1929 October, SCIENCE WONDER STORIES, available as a free pdf from www.archive.org).

Ted Nelson wasn’t a mad scientist, just a radio techie who got in too deep. He developed a headset device that enabled the viewer to look deep inside atoms from the comfort of his own laboratory bench. The focus could be narrowed down to a single atom, then further to an electron qua planet orbiting around the nucleus.

He viewed a planet, the usual paradise kind with a jungle forest and utopian society. Plus the beautiful maiden, let’s not forget her. That way lay madness, for he was most distressed that he would never get to know her, whether platonically or biblically. It all ended in tears, his.

“The Seed Of The Toc-Toc Birds” by Francis Flagg (pseudonym of Henry George Weiss) (1932 January, ASTOUNDING, available as a free pdf from www.archive.org) was a variation of invasion from an electron stories.

The story began in the Arizona desert when strange human-sized birds were spotted. Then black globes floated through the sky, shattering at random. Where they broke apart, an impenetrable jungle sprang up on the ground that suffocated all Earth life. Bullets and explosives were of no avail.

The story then jumped back to Professor Reubens, as told by his former student Milton Baxter. Reubens was a physicist at the University of Arizona who had invented a “super-atomic-microscope” that could see down into an atom and observe its electrons in great detail. There were twelve electrons, which suggests he was observing a magnesium atom.

One of those electrons had a technological civilization, with which Reubens eventually managed to establish communications. The inhabitants were the aforementioned bird-like creatures, who were anxious to come up and visit. So they did, establishing their superscience machines down an abandoned mine. Reubens disappeared and at the time no one went looking for him.

And so to the invasion. The obvious tactic was to get down there and destroy the machine. A mining geologist named Talbot and his Mexican sidekick Manuel volunteered to do the job. Talbot got himself captured and transported to the electron world where he met a bedraggled Reubens. The two managed to escape and destroy the machine on the Earth side.

It was stated in the final paragraph that Earth was saved, but nothing was said about the jungles already established in the desert. It may have been a loose thread or else a setup for a sequel.

Going in the opposite direction was “Colossus” by Donald Wandrei (1934 January, ASTOUNDING) in which the hero Duane Sharon took a spaceship out at faster-than-light speed.

The ship had a superscience drive that enabled it to pop through the universe’s curvature up into the next level of being. The faster it went, the smaller the galaxies became in relation to it, until they were only like small puffs of smoke. Finally the ship broke through into the next level.

Our universe was only an atom in the next universe. Sharon found his spaceship resting on a microscope slide in a laboratory of Titans. They were surprised to find him. Alas, he had no way of knowing what atom on the slide he came from. Even if he did, millions of years would have passed on Earth. With no way to go back, he had to adapt as a microscopic creature in the world of Titans.

A very modern adaptation of this idea was the 1997 movie MEN IN BLACK. The heroes worked for a secret agency which kept alien visitors to Earth under control. In this movie, the bad guy, a giant bug, came to Earth seeking the MacGuffin, a jewel called The Galaxy, said to be a source of infinite energy.

It was the size of a marble. When one of the characters found it, she looked deep into it and saw a galaxy inside. An actual galaxy from the next level down.

The final battle was won by the Men In Black of course. The camera pulled back from the climactic scene and kept going. First it showed an aerial view of the scene, then as the altitude increased, a view of Earth, then the Solar system, then the Milky Way galaxy. The SFX kept enlarging the view to show our galaxy inside a marble, then alien children using it to play the game. An infinite enlargement, each universe a marble inside the next.

Yet another variation on this theme was “Atomic Power” by Don A. Stuart (1934 December, ASTOUNDING). The author was John W. Campbell Jr, who frequently wrote under this name. The story began with a group of scientists who had a nuclear reactor that ran on water. There was an intermittent problem when about once a year a drop of water would not work properly. There was no logic in why this was so.

Along about then, the constant of gravity was detected to be declining, as a result of which the Moon began moving further away from Earth, all the planets likewise from the Sun, and the imminent death of the universe as it spread out to infinity.

The reason was established as the Solar System being an atom that was in the process of splitting, as seen from the next universe up the line. In that universe, the atom we were in was fissioning in a split second, while from Earth’s point of view the process was taking several months.

This gave Earth scientists time to counteract the process by splitting their atoms fast enough to generate energy to re-bind the Solar System. The next universe would not notice one atom more or less not splitting. Left unspoken was the idea that the Earthlings’ own reactors had dud droplets of water because a civilization in one of those atoms was using the same process to protect themselves. Turnabout was fair play.

By the middle 1930s, the Rutherford model of the atom was no longer tenable, yet few golden atom writers acknowledged the Einsteinian and quantum physics. Jack Williamson was possibly the first who did, in his story “The Galactic Circle” (1935 August, ASTOUNDING).

Dr Jarvis Thorn, the mad scientist in question, had prepared a colony spaceship to go exploring into the next atom. Since he surmised it was a one way trip, the spaceship was designed to take 100 passengers to colonize wherever it might land. First the spaceship shrank down to microscopic size, then lifted out into

space away from Earth where it began enlarging in size to reach the universe above, the one in which ours is but a single atom.

Williamson integrated the latest in physics into the story. As the ship shrank down, the light turned red since the photons were red shifted. The ship was enclosed in a force field that miniaturized the atoms within, so the passengers could still breathe its air.

When the ship began enlarging up into the next universe, relativistic effects kicked in such as time dilation. Upon bursting through, Thorn and company found themselves enlarging back up to size to the very spot on the university campus from which they had departed.

The handwaving explanation was that Einstein was correct, and the universe was indeed curved back upon itself. No matter which direction the ship traveled, it would end back up whence it began. The universe was its own atom.

Playing God.

A old trope in science fiction is the creation in a laboratory of a miniature world whose inhabitants live and evolve much faster. This was usually done as a way to study evolution as it happens.

THE OUTER LIMITS was an anthology series that aired on television in the early 1960s, one of many such science fiction and fantasy series. It is often confused with Rod Serling’s series THE TWILIGHT ZONE. The episodes are available on DVD.

“Wolf 359” was a 1964 episode written by Seeleg Lester based on a story by Richard Landau. The mad scientist in question was Jonathan Meredith, whose laboratory and connected house were in the desert. Besides his wife Ethel, he had a laboratory assistant and a financier cluttering up the place.

His project was Dundee’s Planet, a miniature planet about two metres in diameter, named after the financier. It was in a sealed chamber with its own sun (bright lamps) and controlled atmosphere. One second of our time was eleven days on the planet. Once the planet developed an ecosystem, it also developed an angry-looking wraith which had the ability to escape and muck around the laboratory.

Meredith introduced human DNA into the planet, although how this was done was not specified. It couldn't just be sprayed on the ground or injected into the ocean because it does not reproduce outside cells. Be that as it may, life began rapidly evolving, with the wraith as an angry god.

Eventually the planet developed atomic bombs, microscopic ones of course, and Meredith looked forward to seeing what would happen. Remember that this episode was produced at the height of the Cold War, so mushroom clouds were very topical.

Meredith never got the chance to see what happened next, as the wraith popped into his bedroom and tried to kill him. Ethel ran to the laboratory and smashed the glass of the sealed chamber, disrupting the planet and killing the wraith.

The episode wrapped up with a speculation that Earth was only a speck of dust of some superworld, a tip of the hat to the golden atom stories.

Philip K. Dick tried a variation with "Prominent Author" (1954 May, *WORLDS OF IF*, available as a free pdf from www.archive.org). Henry Ellis commuted from rural Pennsylvania to Manhattan via a transporter device that was basically a wormhole. Five steps through a grey tunnel took him from portal to portal.

Except that one day he saw some miniature humans on a tear in the floor of the wormhole. They held up a piece of paper which he took. At the office, he managed to have it translated from what was ancient Hebrew. It was a series of questions, so he wrote out answers on a tiny slip and gave it to them next.

Eventually he figured out the humans were the ancient Israelites. They were tiny because he was big, having had the benefit of an expanding universe. What he was feeding them was in essence the Torah. The wormhole tear was a time loop. Five steps to Manhattan and 5,000 years to Israel.

The Distaff Side.

Not too many female mad scientists are found, and they never seem to have handsome sons. *TEENAGE ZOMBIES* (1959) was a B-movie written by Jerry Warren under his pseudonym Jaques Lecotier (no 'c' in the first name). My copy is on the 50-movie DVD boxed set *MAD SCIENTIST THEATRE* from Mill Creek Entertainment.

Two teenaged couples went boating off the California coast and landed on an island controlled by Dr Myra. She was doing experiments for an unnamed Communist nation, producing a gas that turned people into obedient slaves, aka zombies.

Her controllers pressured her to finish up the tests and begin mass-producing pellets containing the gas. The pellets would be dropped across the USA and turn the citizenry into servants of Communism.

Myra wasn't entirely without a conscience. Her controllers were struggling to produce results on a budget. They told her that if she didn't have action quickly, the project would be cancelled and their masters would resort to hydrogen bombs. She angrily shouted: "*The stupid fools! What good is land if you can't use it or go near it?*"

The scenes in her laboratory were accompanied by bubbling noises, which was strange because there was nothing bubbling. The workbench was covered with flasks half full of stagnant coloured water and tubes that went nowhere from nowhere. If they were supposed to be part of a distillation apparatus, then there were no flowing or boiling liquids visible.

The teenagers were captured by Myra's assistant Ivan, a hunchback much like any other hunchback you've ever seen in a laboratory. She also had a gorilla roaming about, who fortunately only had a bit part.

The teenaged boys escaped but came back to rescue their girlfriends. Those scenes took place at night, but some of the outdoor sequences were as bright as the noonday sun.

There were assorted scenes of travelling back and forth between the island and the Deppity Dawg's office ashore. The movie was padded out with small boats putt-putting across the water, and the boys building a raft out of scrap lumber that obviously wouldn't float. In fact, after they spent much time on it, they hid it in the underbrush and never used it.

There was a climactic fight scene in the laboratory with the enemy agents and Ivan. The gorilla was late to the show and didn't arrive until after the fight was over and settled. Back on shore, the teenagers were told they would get a Presidential Citation for disrupting Myra's operation. On that note the movie wrapped up, and not a moment too soon.

Transplants.

One characteristic of mad scientists is that they liked to transplant things. Brains were particularly popular, although at the rate that medical science is advancing, brain transplants may become possible sooner than we think.

A rather strange mad scientist was the one who wanted to make a gorilla sing opera by transplanting vocal cords. Which brings us to “Spawn Of The Subhuman”, written by Scott Bishop and aired on 1942-02-27 on the DARK FANTASY old-time radio series. This series is available as free mp3s from the Old Time Radio Researchers at www.otrrlibrary.org.

The episode began innocuously with a couple Marco Brock and Adla Rhodes on a chartered airplane, just the two of them. She was an operatic soprano and he was her manager.

Rhodes loaded the introduction with several blatant premonitions, and at great length. Once she ran out of forebodings, they fell asleep. They woke up 8 hours later over Mexico. The airplane made a pit stop for fuel and a meal, and then continued on their way to Monterrey.

Not long after, they noticed they were over wide water, far off course. The pilot was now a gorilla, much to their surprise and shock. The aircraft then landed in a hidden mountain valley. The gorilla, named Stefan, spoke perfect English in a cultured manner.

He told them he worked for Dr Luther. The mad scientist, for indeed he was, took the couple into his laboratory. He explained all with a lengthy infodump, including having Stefan sing operatic extracts. Rhodes suddenly remembered a friend Stefan Wilder, an opera singer, who had disappeared five years ago.

The gorilla had Wilder’s vocal cords, which Luther had transplanted. People would pay good money to hear a gorilla sing opera, Dr Luther bwah-ha!-ha!-ed. I think he overestimated the market for gorillas who could sing Pagliacci.

In any event Luther was going to do the same with Rhodes’ vocal cords. She told him that Wilder had been losing his voice singing opera and the gorilla would do the same. Luther went berserk at the thought his work was for nothing.

Stefan’s voice broke and so did Luther. He shot the gorilla while it was singing Pagliacci. On that note, you’ll pardon the pun, the episode ended.

CRIMSON was a 1973 movie written by Al Mariaux and John Fortuny. It was in French but subtitled with English captions. Some references give its title as CRIMSON, THE COLOR OF BLOOD, but in the opening credits only the single word is used. The film is available from Mill Creek Entertainment on their “Mad Scientist Theatre” 50-movie DVD boxed set.

Events began with a night burglary at a jewelry store gone wrong. The thieves escaped but when they tried to run a police blockade, one of them, named Surnett, was wounded in the head. They made it to their hideaway. The only hope for Surnett was an alcoholic surgeon named Rieder, who had been struck off the list for good reason.

The underworld can’t be fussy about health care plans, since all gunshot wounds must be reported. Thus they had to sober up Rieder and bring him to the hideout. He couldn’t do much there but knew a neurosurgeon named Professor Thys who lived in a remote chateau and had his own home surgery.

The gang threatened both doctors, and held Thys’ wife and daughter hostage. He and his wife were both surgeons. They were told to save Surnett or face the consequences.

What the gimmick was transpired as a brain transplant, as it was referred to but which didn’t make sense. It was never properly explained but apparently the procedure was to graft brain tissue into Surnett to supply the missing mass.

Be that as it may, the gang decided on one of their enemies to supply the brain. He was known only as The Sadist, for sufficient reason. Two of the henchmen were dispatched to do the job.

This led to an hilarious sequence where, having shot The Sadist dead, they had to cut his head off. They were used to just shooting people and departing the scene in a hurry, so they argued who had to cut the head off. The problem was resolved by leaving the body on a railroad track and lurking in the bushes until a passing train completed the task.

After the operation, Surnett woke up with part of the personality of The Sadist. His behaviour changed and he became violent. The two gangs went to war,

with much to-ing and fro-ing as they tried to take each other out. Rieder was the next casualty after The Sadist, and the death toll began to rise.

The plot became a list of who's next. Shots were fired aplenty, and the supporting characters thinned out. Surnett was one of the last men standing but he got his when he pointed a gun at a squad of police who arrived just before the end credits.

On that cheerful note, the movie ended. The Thys family were about the only survivors. The movie was a good watch, worth viewing seriously.

Teleportation.

The idea of teleporting via some sort of energy beam is an old one, around long before Star Trek. I reviewed some of these stories in OPUNTIA's #434, 475, and 491.

“The Man Who Was Two Men” by Arthur William Bernal (1934 April, WEIRD TALES) pointed out one of the possible defects of transporter beams. Dr Emmett D. Porthet was the mad scientist in question, although he was rather jovial actually.

His latest project was radioing solids, as it was known in the 1930s, but he needed a volunteer for the test on humans. Harry Preest was the subject, willing for \$1,000 in Great Depression money to take the short trip from one end of the laboratory to the other via a beam of energy.

Porthet demonstrated the device using a cat, which made the trip okay, so Preest agreed. Unfortunately something went wrong and two Preests materialized at the other end of the transporter beam. After discussing all the ramifications, they began fighting. This town ain't big enough for two Preests.

The ending was a failure. The story made a sudden jump to an insane asylum where Preest was a guest of honour. Did he imagine it or was there a second Preest wandering around out in the world?

“The Old Goat” by Charles L. Fontenay (1957 February, WORLDS OF IF, available as a free pdf from www.archive.org) was another transporter experiment gone awry. Dr Angstrom was demonstrating his new matter transmitter to distinguished observers.

First he beamed across his laboratory some inanimate objects to prove the concept. Then he tried to put a goat into the machine. It objected and in the ensuing struggle, both he and it fell into the machine and were teleported across the room. They survived but there was a hitch. Their minds were swapped. Angstrom spent his remaining days baaing and eating hay, while the goat went mad trying to communicate with humans.

WORLD WIDE PARTY ON JUNE 21

Founded by Benoit Girard (Quebec) and Franz Miklis (Austria) in 1994, the World Wide Party is held on June 21st every year. 2021 will be the 28th year of the WWP.

At 21h00 local time, everyone is invited to raise a glass and toast fellow members of the Papernet around the world. It is important to have it exactly at 21h00 your time. The idea is to get a wave of fellowship circling the planet. Rescheduling it to a club meeting or more convenient time negates the idea of a wave of celebration by SF fans and zinesters circling the globe.

At 21h00, face to the east and salute those who have already celebrated. Then face north, then south, and toast those in your time zone who are celebrating as you do. Finally, face west and raise a glass to those who will celebrate WWP in the next hour.

Raise a glass, publish a one-shot, have a Zoom party, or do a mail art project for the WWP. Let me know how you celebrated the day.

WHEN WORDS COLLIDE 2021

Calgary’s annual readercon When Words Collide will be a free virtual convention again this year, on the weekend of August 13 to 15. I hope that some of my readers will register for a few of the panels.

Visit the registration page at: www.whenwordscollide.org/Registration. I had no problem registering on my smartphone and was done in a few minutes. The Zoom sessions will be routed through Eventbrite. All they ask for is your first and last names and an email address.

2021 Festival Guests.

- Cathy Ace: Past president of Crime Writers of Canada
- Vicki Delany: Bestselling crime writer
- Steenia Holmes: Bestselling author in multiple genres
- Fonda Lee: Award-winning speculative fiction author
- Dave Reynolds: Local Authors Manager for Indigo/Chapters/Coles
- Morgan Rhodes: Bestselling and award-winning YA fantasy author, aka Michelle Rowen, bestselling romance and paranormal author, and past president of Toronto Romance Writers.

Podcasts And Webcasts.

A selection of past festival sessions (including the 2020 online festival) can be found on Podcast and YouTube channels:
Podcast channel: <http://whenwordscollide.libsyn.com/>
YouTube channel: www.youtube.com/channel/UCYLP-1XdcKWDyRftkL_a8lQ/
Webcasts from the 2020 online festival are only available on our YouTube Channel. Podcasts are available on either channel.

Recent additions include:

“Does It Have to Be Murder?” *Does the crime have to be murder to make a good mystery? What other crimes can fuel a great story? Panelists Axel Howerton, P.J. Vernon, Alice Bienia, M.H. Callway discuss what types of crimes engage a reader for an entire novel; whether the crime has to be violent; and consider whether there are crimes that are too grisly to captivate an audience.* (2019 in-person festival)

“Edgy Realistic Fiction for Teens” with Diane Terrana, Jenna Greene, Rhonda Parrish, and Steve Swanson. *An open discussion on realistic themes in young adult fiction. What’s out there, who’s reading it, and how is it being received?* (2019 in-person festival)

“Pitch That Story Idea!” with Suzy Vadori. *Your story explodes in your brain. You think about it 24/7, and know your characters intimately. So why do freeze when someone asks what your story's about? (or worse, ramble on and on until you've even bored yourself with the details...). Bring your story idea or project to this workshop and you'll work on and practice saying a succinct pitch that will wow publishers and potential readers.* (2020 online festival)

SEEN IN THE LITERATURE

Canadian Space Agency (2021-05-26) **Canada moves forward with plans to explore the Moon.** www.asc-csa.gc.ca

Press release: *As we plan for humanity’s return to the Moon, there is great potential for Canadian entrepreneurs and scientists to advance lunar science and technology. Canadians will play an important role in the highly competitive and innovative global supply chain of the expanding new space economy.*

That is why, the Honourable François-Philippe Champagne, Minister of Innovation, Science and Industry today announced investments of \$3 million in technology initiatives for lunar exploration through the Canadian Space Agency (CSA).

Minister Champagne highlighted the latest support and opportunities provided under the CSA’s Lunar Exploration Accelerator Program, to expand and prepare Canadian entrepreneurs and scientists to take part in lunar exploration.

Mission Control Space Services is receiving \$3-million to test cutting-edge technology in lunar orbit and on the Moon’s surface, with a mission currently planned for 2022. Two other Canadian companies, Canadensys Aerospace Corporation and NGC Aerospace will also demonstrate advanced technologies during a lunar mission.

CSA will be supporting scientists in Canadian universities to advance their understanding of the lunar surface. In partnership with NASA, a Canadian rover will land on the Moon within the next five years. As a first step, the CSA will select two Canadian companies to develop concepts for the rover and science instruments for this mission.

The Minister highlighted the government’s commitment that Canada remains a leading spacefaring nation. In 2019, the government announced Canada would build Canadarm3 for the Lunar Gateway and fund the development and demonstration of lunar science and technologies in fields that include AI, robotics and health.

In return for its contribution to the Gateway initiative, Canada secured two future crewed flight opportunities in deep space. This includes a flight to the Moon as part of the historic Artemis II mission.

The Minister also noted that, since early 2020, the government has invested \$36.5 million to prepare for future mission opportunities, including \$4.4 million to advance technology for nano- and micro-rovers, as well as autonomous science instruments.

- \$2.9 million to develop Canadian lunar science instruments.*
- \$3.3 million to test technology in lunar orbit and on the Moon’s surface.*
- \$22.8 million to MacDonald, Dettwiler and Associates to establish the technical requirements to build Canadarm3.*
- \$3.1 million to support the development of technologies targeting the lunar economy and looking to be included into lunar mission supply chains, by April 2024.*

A Canadian will be part of the Artemis II mission, the first crewed mission to the Moon since 1972.

McLeish, D.F., et al (2021) **Colloidal transport and flocculation are the cause of the hyperenrichment of gold in nature.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2100689118

[Flocculation occurs when very fine particles clump together.]

Authors’ abstract: *Hydrothermal veins supply much of the Earth’s gold. Their propensity to contain bonanza occurrences of gold that have concentrations millions of times greater than the concentration of gold in Earth’s crust makes them important targets for exploration and resource development.*

The mechanisms by which such hyperenrichment occurs are enigmatic. The accepted wisdom is that this enrichment reflects the saturation and precipitation of gold from hydrothermal fluids. Laboratory experiments and measurements of active hydrothermal systems, however, have shown that the solubility of this noble metal is exceptionally low.

Here, we demonstrate that this issue is resolved by the physical transport of gold in the solid state as nanoparticles and their flocculated aggregates, thereby explaining the paradox of bonanza gold ore formation.

Aqueous complexation has long been considered the only viable means of transporting gold to depositional sites in hydrothermal ore-forming systems. A major weakness of this hypothesis is that it cannot readily explain the formation of ultra high-grade gold veins.

This is a consequence of the relatively low gold concentrations typical of ore fluids (tens of parts per billion [ppb]) and the fact that these “bonanza” veins can contain weight-percent levels of gold in some epithermal and orogenic deposits.

Here, we present direct evidence for a hypothesis that could explain these veins, namely, the transport of the gold as colloidal particles and their flocculation in nanoscale calcite veinlets.

These gold-bearing nano-veinlets bear a remarkable resemblance to centimeter-scale ore veins in many hydrothermal gold deposits and give unique insight into the scale invariability of colloidal flocculation in forming hyperenriched gold deposits.

Using this evidence, we propose a model for the development of bonanza gold veins in high-grade deposits. We argue that gold transport in these systems is largely mechanical and is the result of exceptionally high degrees of supersaturation that preclude precipitation of gold crystals and instead lead to the formation of colloidal particles, which flocculate and form much larger masses.

These flocculated masses aggregate locally, where they are seismically pumped into fractures to locally form veins composed largely of gold. This model explains how bonanza veins may form from fluids containing ppb concentrations of gold and does not require prior encapsulation of colloidal gold particles in silica gel, as proposed by previous studies.

Bindi, L., et al (2021) **Accidental synthesis of a previously unknown quasicrystal in the first atomic bomb test.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2101350118

Authors' abstract: *The first test explosion of a nuclear bomb, the Trinity test of 16 July 1945, resulted in the fusion of surrounding sand, the test tower, and copper transmission lines into a glassy material known as trinitite.*

Here, we report the discovery, in a sample of red trinitite, of a hitherto unknown composition of icosahedral quasicrystal, Si₆₁Cu₃₀Ca₇Fe₂. It represents the oldest extant anthropogenic quasicrystal currently known, with the distinctive property that its precise time of creation is indelibly etched in history.

Like the naturally formed quasicrystals found in the Khatyrka meteorite and experimental shock syntheses of quasicrystals, the anthropogenic quasicrystals in red trinitite demonstrate that transient extreme pressure-temperature conditions are suitable for the synthesis of quasicrystals and for the discovery of new quasicrystal-forming systems.

Zapalski, M.K., et al (2021) **Hexacoral-crinoid associations from the modern mesophotic zone: Ecological analogues for Palaeozoic associations.** PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOLOGY 572:doi.org/10.1016/j.palaeo.2021.110419 (available as a free pdf)

Authors' abstract: *Coral-crinoid associations, where a coral overgrew a crinoid's stem, were among the very common Palaeozoic benthic associations, lasting until the end of the Palaeozoic. Many skeletal overgrowths described so far document syn vivo relationships. This type of interaction is unknown from later, Meso- and Cenozoic deposits, and to date has been unknown from recent seas.*

Here we analysed two individuals of the crinoid Metacrinus rotundus collected from mesophotic depths off the Japanese Pacific coast, overgrown by a single zoantharian polyp of Abyssoanthus sp. (Anthozoa: Hexacorallia: Zoantharia: Abyssoanthidae), and by some sea anemones identified as Metridioidea sp. indet. (Hexacorallia: Actiniaria).

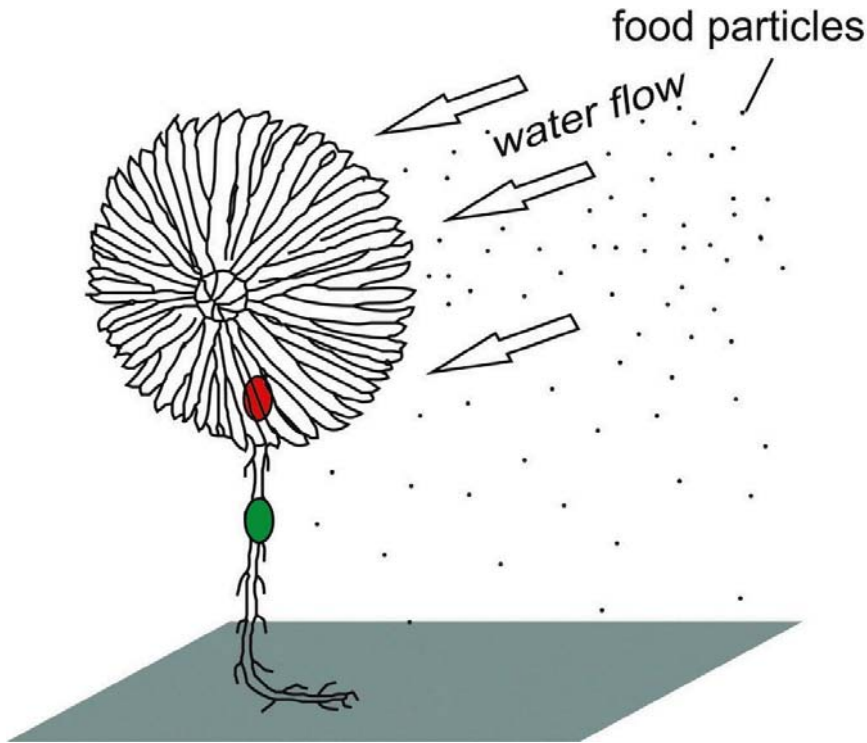
These azooxanthellate hexacorals do not possess skeletons, and were located below the host's feeding fan. Our microtomography examinations showed that the anemones did not modify the host's columnals. These specimens offer a good ecological analogue to similar associations of rugose, Cladochonus-like and tabulate corals known from the Palaeozoic.

While in our specimens competition for food between hexacorals and crinoid likely does not occur, such interactions are possible. Both zoantharians and sea anemones show similar corallite/oral disc diameters to rugose corals and Cladochonus-like cnidarians that overgrew crinoids in the Palaeozoic, and therefore they probably obtained similar sizes of food particles.

In environments with low relief seafloors these hexacorals benefited from their elevated position, and therefore stronger feeding currents. As both Actiniaria and Zoantharia have their phylogenetic roots deep in the Palaeozoic, and coral-crinoid associations are common among Palaeozoic tabulate and rugose corals, we speculate that also Palaeozoic non-skeletal corals, inferred from molecular studies, may have also developed this strategy of settling on crinoids, and therefore occupying similar ecological niches to these hexacorals described here.

This report documents that coral-crinoid associations, characteristic of Palaeozoic benthic communities, and thought to have disappeared by the end of Permian, exist in modern seas.

[Images from this paper.]



Quinton, C., et al (2021) **Sequence stratigraphy and carbon isotopes from the Trenton and Black River Groups near Union Furnace, PA: Constraining the role of land plants in the Ordovician world.** PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOLOGY 574:doi.org/10.1016/j.palaeo.2021.110440

[A transgression occurs when plate tectonic movements cause the sea level to rise, and a regression is when the water recedes. The Ordovician period was 488.3 to 443.7 megayears ago. Vascular plants, that is, those with veins, did not arise until the Devonian period 416 to 358.9 mya.]

Authors' abstract: *Sea-level change influences carbon isotopic trends in both modern and ancient carbonate depositional environments. Generally, this relationship is manifested as a positive carbon isotopic excursion where the rising limb of the excursion is associated with transgression.*

These excursions exist because sea level can influence

- 1) local/regional/global carbon cycling,*
- 2) basin restriction and meteoric influence, and*
- 3) carbonate sedimentation.*

The first two processes are influenced, in part, by the large carbon reservoir represented by the terrestrial biosphere. Our goal is to explore the relationship between carbon isotopes and sea level prior to the evolution of vascular plants at a time when the terrestrial carbon reservoir was far smaller.

This study focuses on the Upper Ordovician Union Furnace section in Pennsylvania, where a previously documented ~1‰ increase in $\delta^{13}\text{C}$ Carbon values in the upper Sandbian (458.4 to 453.0 Ma; referred to as the “baseline shift”) has been interpreted to reflect a perturbation to the global carbon cycle due to the proliferation of non-vascular plants.

By sampling genetically related packages of rock we were able to document a relationship between carbon isotopes and sea level at the sequence and para-sequence level. Our results show that carbon isotopic values decreased during transgressions and increased during regressions. This seemingly inverse relationship between $\delta^{13}\text{C}$ values and sea level is interpreted to reflect increased terrestrial fluxes during regression in a world devoid of vascular plants.

Our results suggest that the early colonization of land by non-vascular plants impacted regional carbon cycling in the Appalachian Basin and eventually the global carbon cycle in the Late Ordovician.

Enriquez, N.J., et al (2021) **Probable deinonychosaur tracks from the Upper Cretaceous Wapiti Formation (upper Campanian) of Alberta, Canada.** GEOLOGICAL MAGAZINE 158:doi.org/10.1017/S0016756820001247

[Deinonychosaurs were the next closest clade to avian theropods, which evolved into birds, which today are the only lineage of dinosaurs still living. Deinonychosaurs, as seen in the Wikipedia image at right, were definitely bird-like. They were very distinctive because their second toe was curved back above the foot as a sickle that was used in attacking their prey.]

Authors’ abstract: *Late Cretaceous tracks attributable to deinonychosaurs in North America are rare, with only one occurrence of Menglongipus from Alaska and two possible, but indeterminate, occurrences reported from Mexico.*

Here we describe the first probable deinonychosaur tracks from Canada: a possible trackway and one isolated track on a single horizon from the Upper Cretaceous Wapiti Formation (upper Campanian) near Grande Prairie in Alberta.

The presence of a relatively short digit IV differentiates these from argued dromaeosaurid tracks, suggesting the track maker was more likely a troodontid. Other noted characteristics of the Wapiti specimens include a rounded heel margin, the absence of a digit II proximal pad impression, and a broad, elliptical digit III.

Monodactyl tracks occur in association with the didactyl tracks, mirroring similar discoveries from the Early Cretaceous Epoch of China, providing additional support for their interpretation as deinonychosaurian traces. Although we refrain from assigning the new Wapiti specimens to any ichnotaxon because of their relatively poor undertrack preservation, this discovery is an important addition to the deinonychosaur track record.

It helps to fill a poorly represented geographic and temporal window in their known distribution, and demonstrates the presence of a greater North American deinonychosaur ichnodiversity than has previously been recognized.



[Deinonychosaur image from Wikipedia.]

Raynor, J.L., et al (2021) **Wolves make roadways safer, generating large economic returns to predator conservation.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2023251118

Authors’ abstract: *Measuring the economic benefits conveyed by predators is difficult. Often, effects are indirect and operate through complex ecological changes. As a result, debates about the expansion of predators have pit salient costs against more speculative estimates of benefits that might be dismissed as unreliable or ideologically motivated.*

We quantify the indirect benefits of wolves (Canis lupus) to human lives and property through reductions in deer-vehicle collisions. Moreover, we decompose the effect into two components: changes in prey behavior versus prey abundance. This decomposition is important when effective policy depends on whether hunters can replicate the effects of predators. In the case of wolves, we conclude that human deer hunters cannot.

Recent studies uncover cascading ecological effects resulting from removing and reintroducing predators into a landscape, but little is known about effects

on human lives and property. We quantify the effects of restoring wolf populations by evaluating their influence on deer-vehicle collisions (DVCs) in Wisconsin.

We show that, for the average county, wolf entry reduced DVCs by 24%, yielding an economic benefit that is 63 times greater than the costs of verified wolf predation on livestock. Most of the reduction is due to a behavioral response of deer to wolves rather than through a deer population decline from wolf predation.

This finding supports ecological research emphasizing the role of predators in creating a “landscape of fear.” It suggests wolves control economic damages from over-abundant deer in ways that human deer hunters cannot.

Speirs: I don’t know Wisconsin law but in Canada it is illegal to hunt along roads, which would explain why the deer were not controlled by hunters. Wolves, on the other hand, don’t obey human laws.

Flores-Bello, A., et al (2021) **Genetic origins, singularity, and heterogeneity of Basques.** CURRENT BIOLOGY 31:doi.org/10.1016/j.cub.2021.03.010 (available as a free pdf)

Authors’ abstract: Basques have historically lived along the Western Pyrenees, in the Franco-Cantabrian region, straddling the current Spanish and French territories. Over the last decades, they have been the focus of intense research due to their singular cultural and biological traits that, with high controversy, placed them as a heterogeneous, isolated, and unique population.

Their non-Indo-European language, Euskara, is thought to be a major factor shaping the genetic landscape of the Basques. Yet there is still a lively debate about their history and assumed singularity due to the limitations of previous studies.

Here, we analyze genome-wide data of Basque and surrounding groups that do not speak Euskara at a micro-geographical level. A total of 629,000 genome-wide variants were analyzed in 1,970 modern and ancient samples, including 190 new individuals from 18 sampling locations in the Basque area.

For the first time, local- and wide-scale analyses from genome-wide data have been performed covering the whole Franco-Cantabrian region, combining allele frequency and haplotype-based methods. Our results show a clear differentiation of Basques from the surrounding populations, with the non-Euskara-speaking Franco-Cantabrians located in an intermediate position.

Moreover, a sharp genetic heterogeneity within Basques is observed with significant correlation with geography. Finally, the detected Basque differentiation cannot be attributed to an external origin compared to other Iberian and surrounding populations.

Instead, we show that such differentiation results from genetic continuity since the Iron Age, characterized by periods of isolation and lack of recent gene flow that might have been reinforced by the language barrier.

Zheng, Y., et al (2021) **Prolonged cooling interrupted the Bronze Age cultures in northeastern China 3500 years ago.** PALAEOGEOGRAPHY, PALAEOCLIMATOLOGY, PALAEOECOLOGY 574:doi.org/10.1016/j.palaeo.2021.110461

Authors’ abstract: A 3,600-yr-long temperature record was reconstructed from the Jinchuan peatland in NE China. The prolonged cold event between ca.3.5 to 3.0 kya was identified. Cold-drought conditions contributed to the collapse of the Lower Xiajiadian culture.

The role of climatic change in the social transition in NE China during the Bronze Age is poorly understood due to the lack of reliable climate proxy records. Here we report a 3,600-yr-long climate record based on branched glycerol dialkyl glycerol tetraether distributions in the Jinchuan peat core, Northeastern China.

Our record shows a persistent cooling between ca.3.5 to 3.0 kya, which coincides with the societal transition from a settled to a mobile lifestyle. Comparing existing records suggests that this event represents a hemispherical-scale cooling probably driven by the prolonged El Niño conditions.

The low temperatures caused unfavorable conditions for the agriculture-based society during the Lower Xiajiadian period and thus drove people to flee

southward into the North China and Central China Plains, leading to a culturally desolated area that was gradually occupied by pastoralists in about 250 years.

Our results highlight the need to consider the interplay of climatic dynamics with social upheaval in understanding the evolution of prehistorical civilization in NE Asia.

Poitras, Geoffrey (2021) **Origins of arbitrage.** FINANCIAL HISTORY REVIEW 28:96-123 (available as a free pdf)

[Arbitrage is buying low in one market and selling high in another, whether geographical or over time. Currency exchange rates, commodity prices, and stock trading are common examples.]

Author's abstract: Following a review of the etymology and modern usage of the term 'arbitrage', this article explores the relevance of historical context to possible instances of ancient arbitrage activity. Types of possible 'arbitrage' associated with the use of overvalued coinage in regions of Greek influence are considered.

Comparison with Roman civilization reveals the relevance of social attitudes and legal institutions to the ability to execute arbitrage trades. Specific attention is given to the possibility of arbitrage across the Roman frontier to India and the impact of debasements during the imperial period.

As the obscurity of sources from Bronze Age civilizations defies plausible identification of arbitrage trading, the search commences with the introduction of coinage in regions of Greek influence starting in the late seventh century BCE. Epigraphic, literary and numismatic sources provide hints of possible arbitrage in regions with local coinage overvalued with respect to 'standard' silver coinage issued in Athens and Aegina.

Substantive differences in social and political context between Greek and Roman civilizations translate to practical differences that altered the 'market economy' milieu for arbitrage trading. While the agio for converting between standard and overvalued coinage underpinned market mechanisms for possible arbitrage trading in certain Greek poleis, the Roman empire had socially 'caged' coin users.

During the Republic and early years of the Principate, the 'metallist' approach to coinage resulted in the value of silver denarii and gold aureii being roughly consistent with bullion content. This fueled possible arbitrage trading beyond the frontier in India, Arabia and the barbaricum.

Starting with Nero, evidence from Roman coins in Indian hoards indicates that gradual debasement in Roman silver coinage undermined the metallist basis for possible arbitrage trading of silver, but not gold, in locales beyond the frontier.

Debasement of the silver denarius led to a nominalist coinage system and eventual emergence of the hyperinflation that characterized the crisis and early Dominate periods.

Imperial edicts restricting the melting and transport of coinage strongly suggest a transition of arbitrage trading to the black market economy during this period, effectively eliminating the possible survival of any sources detailing the types of trades involved.

Sanfilippo, Eleonora (2021) **Keynes's trading on Wall Street: did he follow the same behaviour when investing for himself and for King's?** FINANCIAL HISTORY REVIEW 28:1-25 (available as a free pdf)

[Keynesians are dominant among banks and governments today. He proposed that economies could be sped up and slowed down for the good of us all. Not so, but the bankers are the last people in the world who want fiscal discipline.]

Author's abstract: In the last few years Keynes's investment activity, both as an individual trader and as a manager of institutions' portfolios, has attracted attention in the specialised literature. Recently his investments on Wall Street, in particular both on his own account and on behalf of King's College, Cambridge have been analysed. The evident connection with his theoretical analysis of the functioning of the financial markets contained in chapter 12 of The General Theory has been duly stressed.

This article aims to contribute to a more comprehensive understanding of Keynes's trading behaviour on Wall Street by providing a detailed comparison of his investment choices when he traded for himself and for King's. There are similarities, as might be expected, but also significant differences, well worth investigating.

As far as the differences are concerned, one of the most striking is to be seen, for instance, in his attitude when, after a period of bull market in 1936, he had to face the spring 1937 burst of the speculative bubble and subsequent recession. Analysis of his behaviour in this specific case reveals that the event took him by surprise but his reaction differed with regard to his personal investments and the King's investments.

The prevalence of a 'buy and hold' strategy, which, according to Chambers and Kabiri's reconstruction, marked Keynes's behaviour in general (and also in this particular case) when he invested on behalf of King's, was not always his typical choice when the investments were undertaken on his own account.

A possible interpretation seems to be that his personal conviction as an economist of the rightness of Roosevelt's policy was given greater play in influencing Keynes the personal investor than in his institutional role, and also that he allowed himself more freedom in pursuing his investment policy and exploiting Wall Street opportunities when acting as an individual trader.

Crevecoeur, I., et al (2021) New insights on interpersonal violence in the Late Pleistocene based on the Nile valley cemetery of Jebel Sahaba. SCIENTIFIC REPORTS 11:doi.org/10.1038/s41598-021-89386-y (available as a free pdf)

Authors' abstract: The remains of 61 individuals buried in the cemetery of Jebel Sahaba (site 117) offer unique and substantial evidence to the emergence of violence in the Nile Valley at the end of the Late Pleistocene. Excavated and assessed in the 1960s, some of the original findings and interpretations are disputed.

A full reanalysis of the timing, nature and extent of the violence was conducted through the microscopic characterization of the nature of each osseous lesion, and the reassessment of the archaeological data. Over 100 previously undocumented healed and unhealed lesions were identified on both new and/or previously identified victims, including several embedded lithic artefacts.

Most trauma appears to be the result of projectile weapons and new analyses confirm for the first time the repetitive nature of the interpersonal acts of violence. Indeed, a quarter of the skeletons with lesions exhibit both healed and unhealed trauma.

We dismiss the hypothesis that Jebel Sahaba reflects a single warfare event, with the new data supporting sporadic and recurrent episodes of inter-personal violence, probably triggered by major climatic and environmental changes. At least 13.4 kiloyears old, Jebel Sahaba is one of the earliest sites displaying interpersonal violence in the world.

The end of the Late Pleistocene and the beginning of the Holocene were marked by major climatic changes whose impact on human populations is still poorly understood. In the Nile Valley, climatic conditions are depicted as hyper-arid during the second half of the Late Pleistocene. Around 15 to 14 ka, the sudden overflow of Lake Victoria into the White Nile established the present Nile-flow regime, causing regular and severe flooding all the way down to Egypt.

Only after the Younger Dryas (~12.9 to 11.7 ka), do the monsoon conditions of the African Humid Period start to stabilize. There is little evidence for human occupations at the end of the Late Pleistocene (~ 18 to 11.7 ka) in the Nile Valley, with sites restricted to the floodplain of Upper Egypt and Nubia.

Culturally, different lithic industries have been identified with sites associated to the end of the Late Pleistocene. These occur in restricted geographical areas along the Nile, mainly in Upper Egypt. They do not seem to be related to specific activities and are defined by characteristic sets of lithic tools and/or technology that appear to be associated with distinct small hunting-fishing-gathering groups. Each of these lithic groups is believed to represent a cultural tradition that reflects group identity.

The occurrence of large graveyards at the end of the Late Pleistocene reinforces the idea of strong social units within these residential groups. Set in a context of possible environmental pressures and geographical constraints, the identification of traces of interpersonal violence on the individuals buried in Jebel Sahaba have attracted much attention.

Evidence of conflicts is not uncommon in the Nile valley. The oldest documented case (~20 ka) appears to be from Wadi Kubbaniya, where the remains of a partial skeleton belonging to a young adult male provides early evidence of interpersonal violence. Embedded lithic and healed fractures have also been documented on some individuals buried in the Wadi Halfa cemetery, associated with Qadan lithic industry.

Schläpfer, M., et al (2021) **The universal visitation law of human mobility.** NATURE 593:522-527

Authors’ abstract: *Human mobility impacts many aspects of a city, from its spatial structure to its response to an epidemic. It is also ultimately key to social interactions, innovation and productivity. However, our quantitative understanding of the aggregate movements of individuals remains incomplete.*

Existing models, such as the gravity law or the radiation model, concentrate on the purely spatial dependence of mobility flows and do not capture the varying frequencies of recurrent visits to the same locations.

Here we reveal a simple and robust scaling law that captures the temporal and spatial spectrum of population movement on the basis of large-scale mobility data from diverse cities around the globe. According to this law, the number of visitors to any location decreases as the inverse square of the product of their visiting frequency and travel distance.

Serra-Garcia, M., and U. Gneezy (2021) **Non-replicable publications are cited more than replicable ones.** SCIENCE ADVANCES 7:10.1126/sciadv.abd1705 (available as a free pdf)

Authors’ abstract: *We use publicly available data to show that published papers in top psychology, economics, and general interest journals that fail to replicate are cited more than those that replicate. This difference in citation does not change after the publication of the failure to replicate.*

Only 12% of post-replication citations of non-replicable findings acknowledge the replication failure. Existing evidence also shows that experts predict well which papers will be replicated.

Given this prediction, why are non-replicable papers accepted for publication in the first place? A possible answer is that the review team faces a trade-off. When the results are more interesting, they apply lower standards regarding their reproducibility.

Kleinberg, J., and M. Raghavan (2021) **Algorithmic monoculture and social welfare.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 118:doi.org/10.1073/pnas.2018340118

Authors’ abstract: *Algorithmic monoculture is a growing concern in the use of algorithms for high-stakes screening decisions in areas such as employment and lending. If many firms use the same algorithm, even if it is more accurate than the alternatives, the resulting monoculture may be susceptible to correlated failures, much as a monocultural system is in biological settings.*

To investigate this concern, we develop a model of selection under monoculture. We find that even without any assumption of shocks or correlated failures, i.e., under normal operations, the quality of decisions may decrease when multiple firms use the same algorithm. Thus, the introduction of a more accurate algorithm may decrease social welfare, a kind of “Braess’ paradox” for algorithmic decision-making.

As algorithms are increasingly applied to screen applicants for high-stakes decisions in employment, lending, and other domains, concerns have been raised about the effects of algorithmic monoculture, in which many decision-makers all rely on the same algorithm. This concern invokes analogies to agriculture, where a monocultural system runs the risk of severe harm from unexpected shocks.

Here, we show that the dangers of algorithmic monoculture run much deeper, in that monocultural convergence on a single algorithm by a group of decision-making agents, even when the algorithm is more accurate for any one agent in isolation, can reduce the overall quality of the decisions being made by the full collection of agents.

Unexpected shocks are therefore not needed to expose the risks of monoculture; it can hurt accuracy even under normal operations and even for algorithms that are more accurate when used by only a single decision-maker. Our results rely on minimal assumptions and involve the development of a probabilistic framework for analyzing systems that use multiple noisy estimates of a set of alternatives.

LETTERS TO THE EDITOR

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

FROM: Lloyd Penney 2021-06-03
Etobicoke, Ontario

First of all, congrats on 500 issues, and it certainly isn’t a number you see on many publications.

[Time flies when you have fun.]

OPUNTIA #500: No one in my family is into zines, and I suspect they don’t even know about them. There is a zine community in Toronto, but when I asked them about science fiction zines, they laughed at them. They think zines were invented in the 1980s, maybe the 1990s. There are many zines to view at www.brokenpencil.com

Recently, I took a long walk from a Mississauga transit station to home, going through a west-end park, and down long trails. Squirrels galore, and signs warning about coyotes, and mallard ducks here and there in the creek, but I did get to see chipmunks, something I hadn’t seen in years. Lots of greys, and lots of blacks, and even a few red squirrels, but the chips are completely chaotic until you stand still, and they don’t see any movement. We are still the raccoon capital of Canada, and they are everywhere.

[The pandemic lockdowns were good for Calgary squirrels. I saw three baby squirrels playing in my yard, something I’ve never seen since I bought my house in 1982.]

There are dozens of city-run COVID-19 vaccine locations, and the nearest one is in the old Target store at Cloverdale Mall. It looks like we might take the masks off soon, and we might get our second shots sooner than we expected.

From what I read in online and paper publications, our premiers, Ford (Ontario) and Kenney (Alberta), are making it up as they go along, demanding public actions, but failing to set the example. Lack of leadership usually means a single term as premier.

They both ignore the science (as are Pallister and Moe), and they do so at our peril. The scientists keep changing their story, but they do so because of new knowledge in scientific discoveries, and I’d rather trust them than most of our politicians.

[Prime Minister Justin Trudeau hasn’t been much better. The only advantage he had was that he could print currency and throw \$400 billion at the problems. He’ll print another \$400 billion to help the Liberals be re-elected. Before the pandemic, he was criticized for running up a \$20 billion deficit. That isn’t even a line item anymore.]

The Winnipeg in 2023 Worldcon bid looks interesting, but we doubt we’d be able to afford to go. We haven’t been to a Worldcon since 2011, in Reno, Nevada. They have become too expensive to go to for us, but we will continue to see what’s going on with the bid.

[It will be interesting if they can prevail for 2023. I’ll buy an attending membership but may not be there in person.]

OPUNTIA #501: Once again, great COVID stamps. We got our COVID-19 vaccinations late March and early April, and we hope to get the second shots before the end of June. The pharmacy I got mine is literally across the street from us, and I left a message for them about when the second shot will be, but I have yet to hear from them.

[Now that I had my first jab, I’m not too worried about COVID-19. Every retail building in Calgary has vacant storefronts where once were fast-food outlets and body shops. Ground-level residential real estate is going berserk. Neighbours down my avenue just sold their townhouse for \$1 million to the first viewer. Before the pandemic, such units were about \$600,000 and stayed weeks on the market.]

The World Wide Party on June 21 is on our schedule, and it is also the date of one of our regular Pubnites here. We are hopeful that we might be able to gather for a pub night this month, but we never really know.

[You could organize a Zoom party.]