OPUNTIA 304

Good Friday 2015

Opuntia is published by Dale Speirs, Calgary, Alberta. 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.

THE WATCH ALONG THE BOW

by Dale Speirs

The rainy season in Alberta, when we get half our annual precipitation, runs from middle May to the first week of July. Until the great flood of 2013, it was routine; the rain spread out and rarely a few of the usual places flooded directly on the riverbanks and not even making the local news. Then, on June 21, 2013, a maritime low-pressure system stalled directly over us and dropped 250 mm of rain in one day.

All the rivers in southwestern Alberta rose five metres on that terrible day. 100,000 Calgarians lost their homes, and the entire city of High River was wiped out. Places flooded that had never flooded since the first European settlers arrived in the 1870s. The trauma still lingers. Along the Bow River, the City of Calgary engineers placed signs at each stormwater outfall. We remember.











I showed some additional signs on the opposite bank of the river in OPUNTIA #297. And so Cowtowners await the 2015 rainy season with trepidation, never again with complacency.

ALTERNATIVE HISTORY REVIEWS

by Dale Speirs

Look Away.

American Civil War AHs are a staple of the field. Generally I avoid them because there really isn't too much new that can be written about them. The SF magazine FAR FRONTIERS #2 (1985 Summer) has Eric Davin's story "Avenging Angel". It is 1864 and the Confederates are desperate as the war grinds on to its obvious conclusion. A group of men somehow recruit enough scientists and engineers to build a liquid-fuel rocket to deliver a very large payload to Washington, D.C., on Inauguration Day. Lincoln and his government are wiped out. The CSA government tries to bluff the American government by threatening more missiles even though they only had the one. The bluff doesn't work, and the Union's vengeance is terrible, more so than in our timeline.

We Shall Not Fight Them On The Beaches.

FARTHING (2006) by Jo Walton is a manor house murder mystery set in an alternative timeline where an aristocratic group ousted Churchill in 1941 and negotiated a separate peace with Hitler. Lucy and her husband David belong to that group, the Farthing set, named after the manor house of her family. (They rent the land for a farthing a year from the Crown, one of those weird peppercorn rents that was worth money 500 years ago but has never been adjusted for inflation.)

Lucy is old money and David is a Jew, an outsider who married into money. It is 1949, anti-Semitism is rampant in Britain, and the aristocracy live as they always did, with none of those inconvenient socialists in power. At a weekend retreat at Farthing House, Sir James Thicke is, or was, the body that triggers a murder investigation. Inspector Peter Carmichael is a veteran who survived Dunkirk.

It was Sir James who helped negotiate "Peace With Honour" when the Rudolf Hess mission succeeded. Hitler acknowledged he had no ambitions for the British Isles and in return the British government looked the other way at what he was doing on the continent. This enabled the Germans to pull troops away from the English Channel and divert them eastward. In 1949 though, the Germans are still bogged down at Stalingrad. A popular joke is that British

newspapers leave the headline "Kursk changes hands" as standing type, rewriting the exact same story with only new dates and country names depending on who has it at the moment.

Inspector Carmichael is called in to investigate Sir James' sudden departure from this vale of tears. The defunct was a multiple adulterer and a virulent anti-Semite who was supporting legislation in the House of Commons that would make it more difficult for commoners and impossible for Jews to attend British universities. Sir James was gassed dead, then a Star of David pinned to his chest by stabbing him through with a knife.

As the novel progresses, we learn more about the AH timeline. The Japanese Emperor is about to visit with President Lindbergh to discuss closer economic ties between the Asian Co-Prosperity Sphere and the USA. The Japanese are still in control of China and have just done to Shanghai what they earlier did to Nanking.

The murder investigation proceeds as most manor house mysteries do. David is the main suspect, but eventually Sir James' wife and brother-in-law are fingered. But the guilty will not be punished, and David will be framed. When the world diverged into a new timeline in 1941, it also made things worse for Jews in Britain. There is no happy ending, where the detective leans against the mantelpiece in the drawing room and delivers a J'accuse! lecture.

And The Bomb Played On.

THE BOMB THAT FAILED (1969) by Ronald Clark opens with Churchill and Truman getting the bad news from the New Mexico desert. The Bomb was a dud. It was a small pop, about an average conventional explosion, not the big bang that was needed and wanted. The second reaction among those involved in the Manhattan Project was relief. They would not have to sup with the Devil and involve themselves in moral qualms.

The failure of the Bomb can mean only one thing in any timeline's 1945. The invasion of Japan must go forward the hard way. Churchill's power base in our timeline was shaky, and even with his wartime successes he was lucky to hang on as long as he did before being booted out of power immediately the war was over. The dud Bomb brings him down a lot faster, and he hands over power to Attlee while the war is still on.

Germany is defeated but Japan staggers on. They might have been willing to negotiate, but a B-29 missed its target in Tokyo and killed the Emperor. Japan will now fight on. Okinawa was a bloody struggle in itself, but matters go from bad to worse when a typhoon cripples the Allied invasion fleet, Mountbatten is killed by a suicide squad in Malaya, and the Russians stop in Manchuria and bide their time.

The invasion of the Japanese home islands, code-named Olympic, goes forth but suffers countless suicide attacks by kamikaze planes and midget submarines. Ashore, the civilian population is also suicidal in defense of the Chrysanthemum Throne.

Absent the atomic bomb, there is a backup plan to use biological warfare, which at least didn't cost \$2 billion for nothing like the Manhattan Project. Not against the people but against the rice crop; starve them out.

Biological warfare by the Americans, who were bearing the brunt of casualties, went ahead without prior warning to the British, which stirred up newspaper controversy and strained the Allied alliance. Between that controversy, as biowar crop spraying resumed in March 1946, and the American public suddenly discovering they were on the hook for \$2 billion of wasted effort, the British and Americans are hard pressed for the resumption of the invasion of Japan.

In March 1946, as Olympic prepares to resume, Judge Joseph McCarthy breaks the Manhattan Project scandal and starts an inquisition. The British are dragged into the scandal. It is them learned that the calculations for the Bomb were done by Klaus Fuchs, who at that point departs hurriedly to Soviet Germany. Could matters get any worse?

Yes. The transfer of British and American troops to Olympic left liberated Europe vulnerable. An accidental border incident turns into a Russian incursion. The novel now spends considerable time dealing with how a border misunderstanding flares up into full war through ignorance, stupidity, and ambitious generals on both sides.

The Americans were forced to suspend the Manhattan Project, not even being allowed to find out what went wrong, but the British quietly continue their atomic bomb work. As Russia occupies Belgium, the British finally convince them into withdrawal back to the Elbe lines by showing their ambassador a

successful test of the Bomb in Woomera, Australia. Stalin does a bit of face-saving blustering, denouncing his counter-revolutionary generals and starting another purge.

From there, the novel fades off. The protagonists sit and wonder, and there is vague news that Japan is willing to surrender in the face of starvation. The ending was unsatisfactory to me. We now know with the benefit of hindsight that Stalin's spies had kept him well informed of the Allies status. He knew that they would only have one or two atomic bombs at most, and were bone-tired of war. Stalin had slaughtered tens of millions of his own people, so he wasn't afraid of losing another city or two when he knew there would be no follow-up punch. Instead of yielding to the threat of a British atomic bomb, he would have negotiated a land grab, giving back Belgium and France in exchange for a more expanded presence in eastern and central Europe.

The Basic Blast.

The standard study on the effects of nuclear war is that of the Nuclear War Effects Panel (NWEP), the report of which was published in several editions from 1979 on [1]. I have used their calculations for a 1 megaton blast in Table 2. They also calculated for a 25 megaton hit, but this is so powerful that basically everybody dies and everything is destroyed.

The NWEP used Detroit as an example of a 1 megaton hit. Calgary is roughly the same size, although different topography, but I'll adapt that study. As the authors of the study made clear, it did not take into consideration local topography. This doesn't matter for the big bombs, since a 25 megaton hit makes hills and valleys irrelevant. For smaller bombs, it is possible for people to escape because they happened to be behind a hill, as happened at Nagasaki, where the 21 kiloton bomb went off course and fell in behind some hills.

The inability to survive a nuclear war was recognized by civil defence authorities. In Canada, planning during the height of the Cold War was done on the assumption that survivors would have other cities to go to. The authorities publicly acknowledged that no planning could be done if all the cities got smeared. Calgary's civil defence plan (CTACD)was to channel the refugees in an orderly manner to other parts of Alberta and adjacent British Columbia on the assumption that only Calgary took a hit. They assumed a 5 megaton hit, where the details in Table 1 are extracted from their pamphlet [2].

Table 1: CTACD Estimate Of 5 Megaton Blast Effects			
Range from ground zero (km)	Effect of blast on buildings	Chances of survival in a basement	
0 to 5	complete destruction	negligible	
5 to 8	damaged beyond repair	slight	
8 to 16	serious damage fair		
16 to 24	light damage	good	

Table 2: NWEP Estimate Of 1 Megaton Blast Effects			
Range from ground zero (km)	Immediate radiation effects	Blast wind speed (km)	Effect of blast on buildings
0 to 1.3	fatal	750	All buildings levelled
1.3 to 4.8	fatal or 3rd degree burns	465	Most buildings collapsed, wood or brick buildings levelled
4.8 to 7.0	3rd degree burns	250	Heavier buildings damaged, light buildings destroyed
7.0 to 9.5	3rd or 2nd degree burns	150	People blown out of office towers, walls blown out, severe building damage
9.5 to 18.6	1st degree burns	55	Structures damaged, flying debris

Long Range Effects.

I won't go into details because, as the Nuclear War Effects Panel pointed out, after a nuclear society everybody who didn't die will end up living in a new Dark Ages. It is unlikely that only one city would be hit by bombs or fallout. If so, other cities could assist the survivors of Calgary. But if Calgary got squashed, then very likely so would Edmonton (the provincial capital), Grand Prairie (in northeast Alberta near the British Columbia border), Red Deer (halfway between Edmonton and Calgary), Lethbridge (south of Calgary, halfway to the American border), and Medicine Hat (near the Saskatchewan border). Those are all the Alberta cities. One-third of Albertans live in Calgary, one-third in Edmonton, and most of the remaining third in the aforementioned other cities.

Fallout distribution depends on wind direction. In Calgary the wind is almost always from the northwest, shifting back and forth from due west to due north, but still from that quarter. On the Canadian prairies, large cities are few and far between. In the Calgary area, there are numerous small towns and rural villages that would be dusted, but no major population centres to suffer.

Civil defense shelters are of little value if there is no ability to recover afterwards. Almost all technically-trained people and medical staff live in cities. They will be gone, so the survivors will get little or no assistance. Most jobs will be gone, because the factories and offices will be gone. Society would revert to medieval life within two generations. In the Rocky Mountains and foothills, where castles could be built, this would mean feudalism. On the prairies, where there are no defensible positions and little wood to build forts (the Mounties had to import lumber when they arrived in 1874), a nomadic society would return.

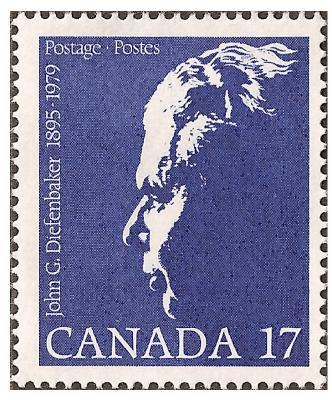
The Diefenbunkers.

I grew up in the Red Deer district of central Alberta, whose airport is at the village of Penhold, formerly a Royal Canadian Air Force base. During the height of the Cold War in the early 1960s, Prime Minister John Diefenbaker ordered that a series of concrete bunkers be built across Canada as bomb shelters for government officials. They instantly became known as Diefenbunkers. One of them was built at Penhold in 1964, and was designed to maintain 350 people for 30 days. The walls were about 40 cm thick and the blast doors 15 cm thick.

With the end of the Cold War, the Diefenbunkers were sold off by the federal government. The Penhold one went for \$474,000 in 1994 to businessmen who offered it on the real estate market. The only serious enquiries were from the Calgary chapter of Hell's Angels (bid \$1.3 million), a Caribbean survivalist group, and another group known to be associated with car smugglers. The subsequent public outcry convinced the federal government to re-think its policy of selling old Diefenbunkers, unneeded prisons, or other secure buildings that could be converted into fortresses by illegal groups. In 1998, the Penhold Diefenbunker was bought back by Ottawa for \$1.25 million. In the summer of 2000, requests for bids to demolish it went out [3]. It cost more to get rid of the Diefenbunker than it did to build it. Our tax dollars in action.

References.

- 1] Nuclear War Effects Project Advisory Panel (1984) The effects of nuclear war. Published by Gale Research Company, Detroit.
- 2] Calgary Target Area Civil Defence (1962) If war should come. Published by the C.T.A.C.D. as a pamphlet.
- 3] Thomas, D. (2000-08-15) Cold War Diefenbunker set for demolition. CALGARY HERALD, page A5



THE MAN FROM MONTENEGRO: PART 7.

by Dale Speirs

[Part 6 appeared in OPUNTIA #289.]

What Is New.

With the death of mystery author Rex Stout in 1975, the original series of Nero Wolfe stories ended, but the torch was passed to Robert Goldsborough, who has been supplying pastiches. I reviewed a number of these pastiches in OPUNTIA #279. Goldsborough's latest novel, ARCHIE IN THE CROSSHAIRS, was published in March 2015.

Nero Wolfe's assistant and legman Archie Goodwin has become the target of an avenger who resents him and Wolfe for sending up someone near and dear to the electric chair. But who that avenger may be is unknown, for the detecting duo have sent many murderers to justice. Archie is shot at in the street by a mystery sniper, and later the brownstone has its bulletproof windows pockmarked by another attempt. The two men go through their files for likely suspects but are distracted by another case.

A young heiress is being blackmailed and seeks Wolfe's advice. That investigation proceeds apparently unrelated to Archie's wannabe killer, but eventually a connection is established. The heiress doesn't know it but her blackmailer is a sibling who fell in with another criminal who wanted revenge against Archie. Wolfe ties the threads of the two cases together. As is traditional, he never leaves his house and instead hosts a J'accuse! meeting with the entire family of the heiress and the gracious presence of Inspector Cramer and Sergeant Stebbins to haul away the miscreant.

That does not end the novel, for as in real life there are continuances and epilogues. The murderer is from a wealthy family, and while he may do some time, his lawyers will tie up the court in knots and get him a reduced sentence on a reduced charge. The family itself does not indulge in a group hug but begins to disintegrate from the betrayal of one of their own.

For those who enjoy Nero Wolfe mysteries, this pastiche is worth reading. The original novels by Rex Stout relied on his ability to write convincing dialogue. Goldsborough is also good at that, and if he can keep it up, his series of pastiches will rank with the master's works.

What Is Old.

Taking a look at Stout's original stories, I pick at random TRIO FOR BLUNT INSTRUMENTS, a collection of three novellas from the early 1960s and set in that era. The first is "Kill Now, Pay Later", which starts off with Dennis Ashby, star salesman of Mercer's Bobbins, taking a dive out the window of his tenth-floor office in beautiful downtown Manhattan, after first being coshed over the head with a desk ornament. Everyone agrees it was murder but by whom?

A shoeshine man named Pete Vassos was the last to see him. Since Vasso's daughter Elma had a few dates with Ashby before breaking off the relationship, the police suspect him. Pete is soon found dead at the bottom of a New Jersey cliff and the NYPD writes it off as a suicide in remorse for the murder. Elma doesn't believe it and comes to Wolfe and Goodwin for help. She says there never was any relationship between her and Ashby.

It seems obvious that the murderer started the rumour to distract attention from the real culprit, but Wolfe can't get any of the suspects to talk to him. He stirs up things up by having Elma launch an action for slander against the suspects and also Inspector Cramer, who was foolish enough to tell a newspaper reporter that the police accepted the rumour. After much to-ing and fro-ing, Wolfe has his J'accuse! meeting and identifies the company owner as the murderer, who was on the outs with Ashby. The story derives its strength from Wolfe's ability to make bricks out of straw by stirring up the suspects (and Cramer) into losing control.

"Murder Is Corny" begins with Inspector Cramer delivering a package of fresh corn to the brownstone. Every Tuesday during the growing season, Wolfe received a box of fresh-picked corn from a farmer named McLeod, which the household ate the proper way, roasted in the husk in a hot oven. (The vast majority of people boil corn cobs, an atrocity that should be outlawed.) The man who normally delivered the corn to Wolfe's house never made it, having been slugged with a piece of pipe in an alley behind a restaurant where he was delivering corn and left dead. Wolfe is a trustee of the restaurant, and when Cramer saw the box of corn addressed to him, the rest followed.

Susan McLeod, daughter of the farmer, claimed she saw Goodwin lurking near the alley and that jealousy of the dead man was the cause. She is an airhead who was really trying to cover up her own presence there. She assumes that Goodwin can alibi himself and is surprised to find out that isn't the case. Wolfe

and Goodwin are forced to begin an investigation to clear themselves and find the real murderer. The conclusion is fairly obvious; Susan's father was the murderer because the victim had gone about claiming that Susan was pregnant by him, an outright lie. Wolfe closes in on McLeod, who realizes that he is trapped. Desperate men do desperate things, and he sends Wolfe a final delivery of corn which Wolfe easily guesses is a dynamite parcel bomb. Cramer brings in the bomb squad, and so it is. The father kills himself, leaving his sins upon his daughter.

The plot is predictable, but the interest is in how Goodwin will extract himself from a murder charge. Once the usual suspects are eliminated, the reader can surmise who the true murderer is, but it is the chase that matters.

"Blood Will Tell" begins with Goodwin receiving in the mail a bloodstained four-in-hand tie, with a note from a James Neville Vance asking him to keep it safe. Naturally Goodwin goes to visit Vance, who professes innocence and does not know how the tie was sent. Vance owns a brownstone, living in the top floor and renting out the other floors. As he and Goodwin are talking, the custodian appears, saying that one of the tenants is not answering her door. They all troop downstairs, use the master key, and find the woman's body, the blunt instrument in this case being a full bottle of vodka. And so the plot gets going.

The woman slept around with abandon and her estranged husband Martin Kirk is the first suspect, the only suspect according to the District Attorney. Kirk hires Wolfe and the investigation proceeds apace. After a while, it becomes obvious that Vance was the murderer and had set up an elaborate plot, including the tie, thinking that it would distract attention from him. The chase is on to find evidence to convict him, and the conclusion is inevitable. Goodwin and some fellow legmen search Vance's apartment on the sly and find a bloody trophy that Vance had taken from the woman's head. For once, Inspector Cramer isn't the one who picks a suspect and then tailors the evidence to convict him. Like Wolfe, he has his doubts, and agrees to the usual J'accuse! meeting to trap Vance.

This story isn't quite as successful, not so much because the murderer is easily guessed but because the plot is too forced. It is unbelievable that Vance would act the way he did, instead of just coshing the woman and claiming to have been in his own suite, something that police would not have been able to disprove.

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 Etobicoke, Ontario 2015-03-22

OPUNTIA #301: Cities seem to be the natural place to put the weirdest sculptures and other works of art. Toronto's got more than their share, and of course, they are in most public areas downtown.

[Driving around rural Alberta, I've noticed that what public art they have seems to be World's Biggest Whatever. In the mountains, there is no need for public art, and out on the bald-headed prairies there is no one to view it.]

The two reception stamps you show, from CFCF and KDKA, were the predecessors of QSL cards and letters. Before finding science fiction fandom, I was a stamp collector, and then a shortwave/AM/FM DXer. I still have albums of my cards somewhere in this apartment. I have always enjoyed radio, and while at work, I will explore BBC radio via the Internet, usually Radio 2 or Radio Scotland.

[As a philatelist, I have been able to buy huge bundles of QSL postcards at cheap prices recently, as the old ham radio operators die off and the next generation uses email to confirm their radio contacts. For those not familiar with amateur radio, when ham radio operators made contact with each other they traded QSL postcards confirming the contacts. I am a postmark collector, so I've been picking up QSLs as a good source of postmarks. The current generation of ham radio operators use the Internet to confirm their contacts, so QSL cards are going the way of paper zines. I've never been a ham radio operator myself. Most of the QSL postcards have interesting designs.]

[DXing is trying to receive radio broadcasts from as far away as possible. This hobby is also being killed by the Internet since almost all radio stations now stream their broadcasts online, and one can download podcasts and mp3s.]

OPUNTIA #302 The cover of this issue reminds me that we woke up this morning with the news that a substantial portion of Line 2, the east-west subway

line in Toronto, was closed because of unfinished overnight repairs. I can imagine the night buses along Bloor and Danforth Streets were jam-packed first thing this morning. The line is up and running again, but I am glad I had nowhere to go this morning.

[That's one nice thing about being retired, not having to be anywhere in a hurry anymore. I particularly enjoy weather forecasts of heavy snow or black ice, secure in the knowledge I'm not going to be commuting in that.]

More and more, people are abandoning the troubles of cable TV to go to services like Netflix, or simply downloading an episode or movie for display at your discretion. We'd missed a few episodes of Murdoch Mysteries, and thanks to the CBC website, were able to view two past episodes tonight. Such may be the future of television, the CRTC or any of the big providers notwithstanding.

[Just as Lloyd wrote this letter, the Canadian Radio-television and Telecommunications Commission (CRTC) ordered all cable service providers to sell a cheap basic bundle, and the other channels at low a-la-carte prices instead of forcing subscribers to pay for bundles of television channels they don't want. The DVD and the downloaded episode are rapidly eating into the telecoms' profits.]

The LAST DANGEROUS VISIONS is the book that never was, something that put a lot of people off Ellison and his ranting and bullying. The Angry Young Man because simply an Angry Old Fart in my opinion. His writing has been stellar, but his personality? He is not a writer I'd care to meet. However, I do have the two actual DANGEROUS VISIONS volumes on my shelf.

[I like most of Ellison's stories but the man is his own worst enemy. Now he is 81 and not long for this world, so we have to be polite at the death watch.]

FROM: Milt Stevens Simi Valley, California 2015-04-01

In OPUNTIA #302, I think you must have missed something regarding THE LAST DANGEROUS VISIONS. As I recall, it was announced years ago that the book was cancelled, and the rights to the stories were being returned to the authors. Since the announcement was not a surprise, I have no idea as to the year of the announcement. The saga had been dragging on for so many years

that few people believed the book would ever appear. Like everybody else, I had heard about the very large number of stories that had been purchased. I recall thinking they might use such a stockpile of stories to start a magazine if it wouldn't work as an anthology. Since the magazines were on the downhill slide by then, that wouldn't have been a good idea.

[I am not aware of any such announcement, so if anyone can supply me with the exact citation of when and where it was published, I will be grateful. If Ellison did in fact formally announce the book's cancellation, then I withdraw my criticisms of him. I've gotten into arguments with Ellison fans about the book, but none of them ever mentioned Ellison officially pulling the book, which would have shut me up immediately. Does anyone have the details?]

Shortly after the publication of DANGEROUS VISIONS, PENSFA in Palo Alto held a panel discussion of the book. Harlan Ellison showed up for the discussion. That was the first time I met Harlan Ellison. I discovered he was an outstanding speaker. Overall, it was a memorable evening.

I read DANGEROUS VISIONS shortly after it was published. When I think about the book I immediately think about "Go, Go, Said the Bird" by Sonya Dorman. I don't think about it because it was a great story. I honestly don't remember anything about the story except the title. I think of it because everybody at the time thought that was the silliest title we had ever heard of. As far as I know, I never read another story by Sonya Dorman.

The story about frelking inspired Gordon Eklund to do an apazine titled "Frelking in the Woodshed." That's the only reason I remember that story. I recall reading "Eutopia." It was an okay story but hardly surprising if you know what classical Greek culture was like. I remember "Gonna Roll Them Bones" favorably. I don't recall the rest of the stories at all.

I bought a copy of AGAIN DANGEROUS VISIONS when it appeared. I don't think I ever read it. I think that's what everybody did. There was lots of discussion about the first book, but I don't remember any discussion at all about the second. Breaking taboos was fun for awhile. Then the idea became tiresome.

ZINE LISTINGS

[I only list zines from the Papernet. If the zine is posted on www.efanzines.com or www.fanac.org, then I don't mention it since you can read them directly.]

[The Usual means \$5 cash (\$6 overseas) or trade for your zine. Americans: please don't send cheques for small amounts to Canada or overseas (the bank fee to cash them is usually more than the amount) or mint USA stamps (which are not valid for postage outside USA). US\$ banknotes are still acceptable around the world.]

OSFS STATEMENT #431 (The Usual from Ottawa SF Society, 1568 Merivale Road #304, Ottawa, Ontario K2G 5Y7) SF clubzine with news, notes, and listings, as well as astronomy news, this time about colliding galaxies.

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 21 every year. 2015 will be the 21nd year of the WWP.

At 21h00 local time on June 21, 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 party, or do a mail art project for the WWP. Let me know how you celebrated the day.

SEEN IN THE LITERATURE

Erwin, D.H. (2015) Was the Ediacaran–Cambrian radiation a unique evolutionary event? PALEOBIOLOGY 41:1-15

Author's abstract: "The extent of morphologic innovation during the Ediacaran–Cambrian diversification of animals was unique in the history of metazoan life. This episode was also associated with extensive changes in the redox state of the oceans [amount of oxygen in the water], in the structure of benthic and pelagic marine ecosystems, in the nature of marine sediments, and in the complexity of developmental interactions in Eumetazoa [true animals]. ... Molecular clock evidence indicates that animals originated near 780 megayears (Ma) ago, followed by the appearance of sponges, cnidarians, then by the time of the Marinoan glaciation (ending 635 megayears ago) the diversification of bilaterians [animals with bilateral symmetry]. ... Molecular clock evidence indicates that Metazoa originated during the Cryogenian (850–635 Ma) with sponges and cnidarians arising by about 700 Ma ... The amount of atmospheric oxygen increased about 2.4 billion years ago but Proterozoic oceans remained largely anoxic [oxygen-less] below a surface layer oxygenated by exchange with the atmosphere and local biological activity. ... The ecological changes associated with carnivory and burrowing were so fundamental, and so phylogenetically widespread, that they proved impossible to reverse later in the Phanerozoic. Both anoxic waters and mass extinctions drastically restricted the abundance of bioturbators [burrowing animals that mixed the sediments and algae], for example, but only for relatively short periods of time."

Gaston, K.J., et al (2015) **Benefits and costs of artificial nighttime lighting of the environment.** ENVIRONMENTAL REVIEWS 23:14–23

Authors' abstract: "Artificial lighting has transformed the outdoor nighttime environment over large areas, modifying natural cycles of light in terms of timing, wavelength, and distribution. This has had widespread benefits and costs to humankind, impacting on health and wellbeing, vehicle accidents, crime, energy consumption and carbon emissions, aesthetics, and wildlife and ecosystems. Here, we review these effects, particularly in the context of ongoing developments in the extent of artificial lighting and in the prevalent technologies

being employed. The key issue that emerges is how best to maximize the benefits of artificial nighttime lighting whilst limiting the costs."

"... The introduction of artificial lighting, and particularly electric lighting, has disrupted natural cycles of light and darkness that had previously been rather consistent over long periods of geological and evolutionary time. This disruption, which derives from public and private lighting sources has a number of distinct components. First, it has introduced light sources at intensities that are substantially brighter than, or comparable to, those from natural nocturnal sources of nighttime light. A full moon on a cloudless night gives illuminance of the order of 0.1 lx, and on a moonless overcast night this reduces to about 0.0001 lx. By contrast, direct lighting immediately under street lamps is commonly of the order of 10–40 lx (and substantially higher for some other sources), and remains above 1 lx several meters away, and sky glow (artificial light scattered in the lower atmosphere) under cloudy conditions in urban areas has alone been shown to be of an equivalent or greater magnitude than high-elevation summer moonlight. ... Second, artificial sources have changed the spectrum of lighting compared with natural nighttime sources, with signatures that differ from those of direct and diffuse sunlight, twilight, and moonlight. ... Third, artificial sources have introduced pulsing or flickering light at frequencies (typically >100 Hz) that had previously been scarce, and much higher and acting over much wider areas than those of typical natural sources, such as wildfires and canopy sunflecks."

"... Less tangible is an apparent sense of wellbeing humans may instinctively feel in lit environments, even where their physical wellbeing may be unaffected or harmed, possibly a response evolved due to increased predation risk in dark areas in naturally lit environments. This apparently irrational response in developed societies is likely to frustrate implementation of more rational lighting policies."

Speirs: I don't know if the authors were speaking ironically in that last sentence. Obviously humans are still subject to predation today, not by wild animals but by muggers and rapists. Interestingly enough, a police officer once told me that in his experience of investigating burglaries, it is better to have a dark yard since that makes intruders with flashlights more conspicuous.