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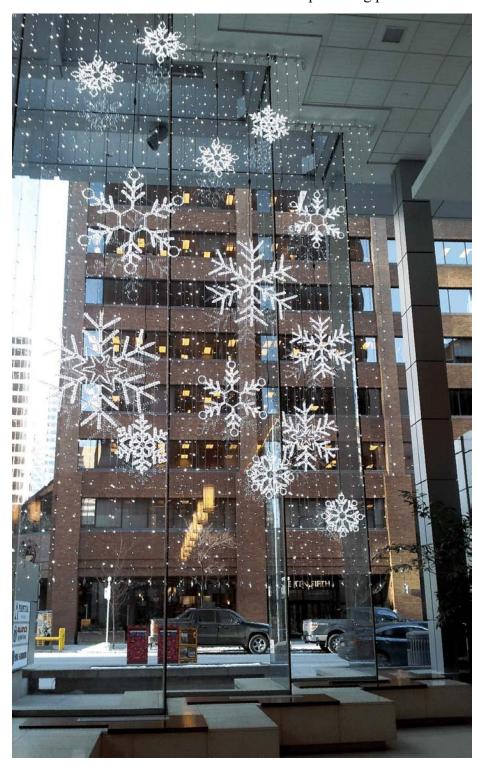
THE FESTIVE SEASON

photos by Dale Speirs

During the Stampede rodeo, every musical group in Calgary, from heavy metal to Polish waltzes, becomes a country-and-western band. It is only fair, therefore, for the Calgary Stampede ensemble to put touques on top of their cowboy hats and play Christmas tunes in skyscraper lobbies. I'm not sure why the women are wearing tartan skirts; this isn't the season for Celtic music.



Some more Christmas decorations. Below is Fifth and Fifth Place, not to be confused with Fifth Avenue Place in the preceding photo.



Santa Claus comes to TD Square, not on Fifth anything.

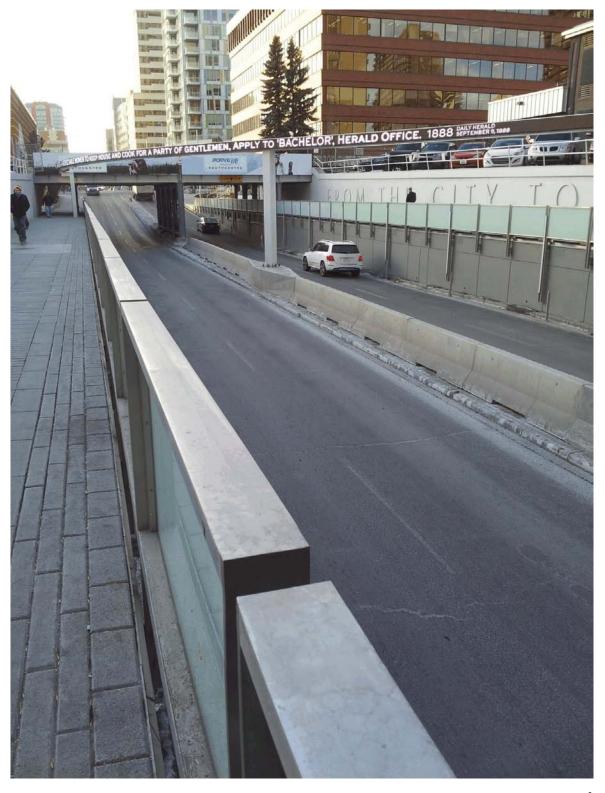


The southern boundary of the downtown core is the transcontinental railroad, which historically has been a barrier to north-south traffic in the city. Over the past century, several underpasses were dug to resolve the problem. They were narrow and outright hostile to pedestrians, so for a decade now and years to come, the City has been rebuilding them.

A few days before Christmas, the 8 Street SW underpass was reopened to the public. In keeping with the attitude that the taxpayers are always good for the money, each new underpass has some sort of art work. For this one, it is a long narrow LED display snaking across the road. It constantly runs text taken from newspapers of the pioneer days. I suppose the idea is to keep pedestrians amused as they make the long trek.

I took the photo at right on December 22, a few days after a chinook had removed all the snow. The temperature was about -10°C, but it's a dry cold, about equivalent to 0°C back east. The view is looking south just before sunset at about 16h30.

The next page shows a close-up of one of the messages scrolling across the display, taken from an 1888 issue of the CALGARY HERALD. That newspaper is still in business but just barely, and I suspect it will not survive another decade.





CRY UNCLE AND LET SLIP THE DOGS OF WAR: PART 2

by Dale Speirs

[Part 1 appeared in OPUNTIA #361.]

Television Series.

I'm not going to review all 105 episodes, so relax on that point. The first season was black-and-white, with colour episodes thereafter. Some of the episodes were later combined or expanded, and made into movies for release in theatres. Eight such movies were released. Colour television was not yet common, so the movies were popular with audiences who had previously seen the shows in black-and-white on a small screen.

What was extraordinary about the series was how many supporting actors went on to bigger and better things. Just to pick two examples, "The Project Strigas Affair" (aired 1964-11-24) had Leonard Nimoy and William Shatner working together for the first time before they went trekking. Werner Klemperer was also in that episode before he was promoted to Oberst in HOGAN'S HEROES.

"The Never-Never Affair" (1965-03-22) featured Barbara Feldon as an UNCLE translator a few months before she transferred as Agent 99 to another spy agency called CONTROL.

The theme of the initial episodes was that of Solo and Kuryakin on a mission of some kind. An innocent bystander would become swept up in the plot and have to be protected by them as the story unwound. This was later replaced by the usual variations of a spy series, such as THRUSH plots, non-THRUSH supervillains, mad scientists, and MacGuffins.

The plots were often standard doomsday devices, chasing after MacGuffins, or assassination attempts. Some are definitely obsolete, such as a plan to reanimate the body of Hitler.

The show always had wry humour in it. Both UNCLE and THRUSH agents were hamstrung from time to time by budget cuts, or had to run interference with their own bureaucrats. Solo was always ruining his suits during hand-to-hand combat with his adversaries, leading to testy remarks from his boss Alexander Waverly about Solo's expense account claims.

The UNCLE duo worked around the world in various exotic locations, from Greece to Japan to Iowa to Africa. As per standard supervillain tradition, THRUSH preferred out-of-the-way locations for its evil machines.

Kuryakin occasionally returned to the USSR to work on jobs there. His presence in UNCLE was indicative of the old phrase "the enemy of my enemy is my friend", particularly as it applied to THRUSH. Communism was skirted around and normally only dealt with in fictional European dictatorships. The Soviets apparently appreciated UNCLE's willingness to deal with deviationist Balkan countries. As has long been noted, national interest always trumps ideology.

In those days, viewers did not have home videos. They saw a show once and again in reruns, but that was it. The studio relied on poor memories to save money building new sets. TMFU, like most television shows at the time and for years to come, re-used character actors in different parts.

Studio sets such as back lot streets simulating New York neighbourhoods were frequently reused. One of the studios the show was filmed in had a distinctive spiral staircase that appeared many times as many different places.

Jungle stories were filmed on stages or back lots decorated with potted plants. To the average viewer, a plant is a plant, but to a professional horticulturist such as myself (BSc Hort. '78, U of Alta), it is hilarious to see tropical and non-tropical species from different continents growing together. Desert plants appeared in faux jungles. Caribbean islands had chaparral shrubs.

To cite an example from the second season (1965), the episode "The Tigers Are Coming Affair" was set in the jungles of India. The plants were, however, domesticated plants such as philodendrons, bananas, breadfruit, aroids, bamboos, and pampas grass. They are popular houseplants or outside plants in warm climates. A couple of long-view scenes showed cars driving down roads lined with chaparral and other brush species of the southern California hills.

I particularly noticed a clump of *Sansevieria trifasciata*, the snake plant or mother-in-law's tongue. The genus is native to eastern and central Africa but has become perhaps the most common houseplant in North America. The particular clump I saw had some leaves bent at a certain angle, which made it recognizable as the characters passed it again and again as they trekked through the jungle.

The first season made use of plots that had seen better days, probably the reason why it was almost cancelled. If James Bond hadn't been a success at the theatres, TMFU would died shortly after birth. The first episode was about an assassination attempt against an African leader. Not for the last time were Solo and Kuryakin assigned as bodyguards to protect some bigwig from death threats. If THRUSH wasn't trying to steal a top-secret weapon from the government, then they were about to release a poisonous gas or pathogen somewhere. The other standard plot was UNCLE trying to courier vital information from Point A to Point B while THRUSH tried to stop them, or vice versa.

Season 3 episodes of 1966-67 varied wildly. "The Off-Broadway Affair" had children's puppeteer Shari Lewis as the guest star. In one scene, she runs down the spiral staircase that the UNCLE agents had used in other episodes. She is an understudy of a bad Broadway show that is kept running by THRUSH because they dug a tunnel from the theatre basement to UNCLE headquarters two doors down and are fiddling with the UNCLE computer. She gets her star turn but the performance ends with a bang.

Following next in the season was "The Concrete Overcoat Affair", a two-part episode that even today would be considered risque. Janet Leigh steals the show as the personal secretary of the villain. She is also a sadistic torturer and not only enjoys doing it but gets orgasms from it. She wears tight revealing outfits, and goes bright-eyed with joy when ordered by her boss to kill someone. How that episode got on the airwaves is a wonder. It was later made into a movie THE SPY IN THE GREEN HAT, with additional sex scenes added.

Unfortunately the episodes often had comedy routines that even then were dated. "Concrete Overcoat", for example, had a subplot involving elderly gangsters left over from the 1920s and their niece, whom they wanted to have married to Solo. It wasn't funny then or now, and only cluttered up the story.

The fourth season made a 180-degree turn after network executives realized the show should go back to its roots as a serious spy drama. The episodes became grimmer, perhaps too grim. It didn't matter, as by then ratings had collapsed. The fatal mistake appears to have been scheduling it a half hour after GUNSMOKE began on another network, so viewers stayed with that show. And so to an ignominious end, when TMFU was cancelled halfway through the season.

The DVD box set came in a miniature suitcase to hold the four large disk packs, with four booklets, one for each season. The booklets listed the episodes and had a few pages of publicity fluff. Neither the disk packs nor the individual disks had episode listings. To find out where an episode was, one has to go back to the booklet. It would have cost nothing extra to print the listings on the disks.





Digest Magazines.

The MGM company sold rights for a fiction digest magazine to Leo Margulies, a well-known publisher who had been in the pulp magazine field for years. Each issue of TMFU MAGAZINE contained an original story about the daring duo, written by various authors under the house name Robert Hart Davis. Billed as a "Full Length Novel", the story was 70 to 90 pages, about half the magazine.

The rest of the issue was filled out with non-related pulp fiction. The magazine was published from February 1966 to January 1968, when it died along with the show. It was not a great loss to literature.

The UNCLE stories were fair to middling but were largely written by pulp writers, and showed their influence. All TMFU fiction, magazine or paperback, was copyrighted in the name of MGM, not the author or publisher.

At the same time that magazine started up, Margulies initiated another digest titled SHELL SCOTT MYSTERY MAGAZINE. Scott was a typical hackwritten private detective, and the magazine only lasted nine issues. The first issue, dated February 1966, contained a preview of "The Howling Teenagers Affair", a TMFU story that appeared in the first issue of the spy magazine. Margulies did a lot of cross-advertising in his magazines, since it cost him nothing.

Preview

THE MAN FROM U.N.C.L.E.

SHELL SCOTT fans—in the next few pages you can catch an advance glimpse of the excitement and danger you'll find in the new THE MAN FROM U.N.C.L.E. MAGAZINE—headlining the full-length adventures of Napoleon Solo and Illya Kuryakin, inspired by the exciting MGM-ARENA television series. You can finish this great novel by obtaining a copy of this new magazine at the newsstand where you purchased SHELL SCOTT.

THE HOWLING TEENAGERS AFFAIR

by ROBERT HART DAVIS

VIOLENT DEATH hung in the morning air.

It rose with the mist over the great river that flowed past the shining white new city. The rumble in the distance grew louder, a sound like an express train moving closer. The police and thin line of British-uniformed, Americanarmed troops were in their places around the perimeter of the airfield at the edge of the city in the morning sun.

The twin-engined aircraft circled the field once and prepared for the landing.

The distant rumble grew closer. The aircraft touched down. The morning mist began to burn off.

The police and soldiers lounged easily in their thin line, joked, pointed toward the approaching rumble that shook the ground, and laughed. They were not worried. This was Africa. The new Africa, but still Africa. The Zulus of Tcha-

Here they are, MGM-ARENA's famous Illya Kuryakin and Napoleon Solo, starring in THE MAN FROM U.N.C.L.E. Now, every month you can thrill to a brand new super spy novel in which they feature. Reserve your copy of THE MAN FROM U.N.C.L.E. Magazine now at your newsstand!



ka had roamed across this land, beating their assegais against their shields to frighten the enemy before they ever appeared to do battle with them.

The approaching mob was doing the same thing, and the police and soldiers were not frightened. They had been through this before. Only as a formality they held their weapons ready as the first of the mob advanced along the road from the city.

The twin-engined aircraft rolled to a stop and the door opened. A massive broad-shouldered man stepped out and stood at the head of the movable stairs. His white teeth flashed in the morning sun. He was taller than the nervous men around him, like some great Zulu chief himself.

At the edge of the field the first wave of the mob made contact with the police and troops. The police and troops held them back, smiling but striking out with clubs and gun butts where necessary. The troops and police smiled, because they had suddenly seen that the entire mob was made up of the young, the teenagers of this emerging new nation.

The tall, broad-shouldered man stepped down the movable stairway and reached the field itself. He

121

MGM had to approve the UNCLE stories. They could not be adaptations of show scripts because then MGM would have had to pay royalties to the screenwriters. Rejected stories were not a problem to Margulies. He simply recycled them into his other magazines by having his writers change the name of the characters and little else.

Paperbacks.

There were 23 paperbacks from the American publisher Ace, beginning in 1965, as well as 16 British editions. The British paperbacks reprinted novels from the American series but not in the same order. Canada normally got British editions of books ahead of the American versions in those days, but the majority of editions I've purchased or seen in secondhand bookstores (back when Calgary still had them) were American.



Ace published the American editions, Souvenir the British versions.

Unlike the magazine stories, no house name was used. Authors appeared under their own names unless they chose to use a pseudonym on their own initiative. The novels are uneven in sympathetic treatment of the characters and milieu. Some authors hacked out a bang-bang-bang story, while others genuinely tried to keep the true flavour of the series. None of them are more than reasonably good, taking into account they must be judged as pulp action-adventure stories, not great literature. I won't review them all but will mention some paperbacks ranging in quality from bad to average to good. The majority of the novels are a worthwhile read if you like the genre, excepting a few.

I'll start with the bad, which is how the paperback series began. The first paperback, written by Michael Avallone and published in 1965, was titled simply as THE MAN FROM UNCLE because it was expected to be a one-shot. It was so successful that additional books were published. Paperback #1 was sub-titled THE THOUSAND COFFINS AFFAIR, but this never appeared on the cover or copyright page, only on the first chapter heading. Avallone was a pulp writer who had little or no understanding of the UNCLE milieu. Sales were good, but the book is a critical failure.

Avallone wrote as if Solo was a crime-noir detective on the mean streets, hard-bitten instead of suave, sarcastic and bitter for no reason. Sentences grate on the reader, such as when Solo walks into a cottage: "The plain, simple furniture mocked him.", apropos of nothing. I've walked into hundreds of houses and apartment suites in my life but have never been mocked by furniture. Avallone had Solo sneering at everything and everybody, quite out of character for the portrayal by Robert Vaughn as a courteous, sophisticated man of breeding.

The elderly boss of UNCLE, Alexander Waverly, flies out to Europe to join Solo in the field instead of sticking to his Manhattan desk as a CEO should. Evidence is fingered, then tucked away into a jacket pocket as if it was a curio, despite it being explicitly stated that UNCLE has advanced forensic laboratory teams.

The plot is basic THRUSH dastardliness. They have a new chemical that kills in minutes, and will use it to destroy the world unless etcetera etcetera. Instead of storing the chemical in a warehouse prior to use, they fill a thousand coffins with it and bury them in a German cemetery. It seems like an awful lot of work for the return on investment.

Paperback #2 represents the mid-range of quality, a good serviceable read, but not something that stands out. THE DOOMSDAY AFFAIR (1965) by Harry Whittington trots out every Cold War action-adventure cliche. THRUSH has an atomic bomb, there is a spy in the White House code-named Tixe Ylno, and a Red Chinese mastermind. The plan is to drop the bomb on Washington, D.C., and trigger a war between the USA and the USSR. After the two sides have battered themselves into the Stone Age, THRUSH would come up the middle and finally be able to subjugate humanity.

Continuing on with the cliches, the villains have a lair deep under a California mountain where the bomb is being assembled. Solo and Kuryakin end up in the lair, as you knew they would. There are the usual excursions, and a last minute escape while the timer on the bomb ticks down. The detonation down below wipes the slate clean of villains and collapses the lair, a la James Bond. The plot is predictable but the writing is steady.

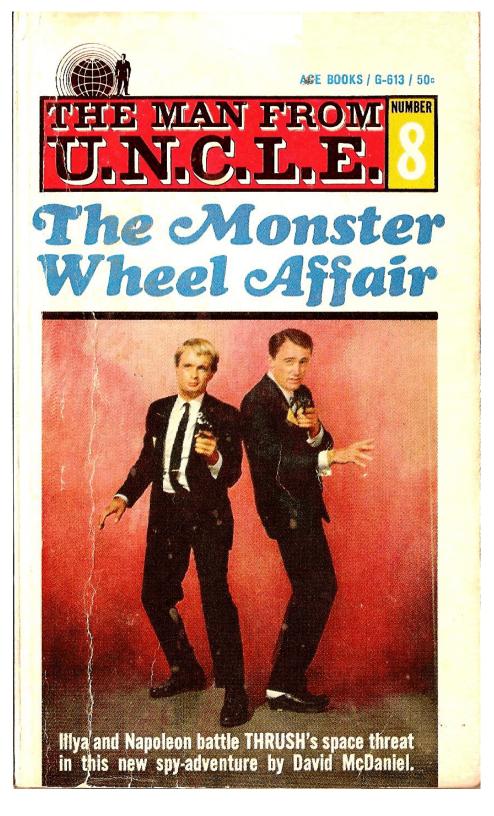
THE MONSTER WHEEL AFFAIR Copyright ©, 1967, by Metro-Goldwyn-Mayer, Inc. All Rights Reserved DEDICATION: To Ted Johnstone, for ten years of unremitting labor which put me where I am today. The Egypt in this narrative is entirely fictional, and has no relation to any real Egypt, living or dead. Printed in U.S.A.

David McDaniel is considered the best of the paperback writers. THE MONSTER WHEEL AFFAIR (1967), which was #8 in the series, starts off with two of his private jokes. The title page has a dedication to Ted Johnstone, which was actually McDaniel's pseudonym that he used in SF fandom.

The Table of Contents page has a secret code message arising from McDaniel's complaint about his publisher being slow in paying him. The first letter of each chapter heading spells out "A.A. Wyn is a tightwad".

TABLE OF CONTENTS

	Section	1: "The Sailor Told Me Before He Died"	
	Chapter	1: "A Dollar A Round."	13
		2 : "An Awfully Big Haystack."	18
		3 : "What Did You Expect—Big Ben?"	29
		4 : "You Know A Party Named Kropotkin?"	37
	Section	II: "They Built Themselves A Monster Wheel"	
		5 : "Nev-Schloss? Where's That?"	47
		6 : "I'll Show You A Magic Trick."	54
		7: "Sing For Us, Rameses."	64
		8 : "A Message From Space."	75
	Section	III: "Round And Round Went The Monster Wheel"	
		9 : "This Is Your Submarine-Keep It Clean."	81
		10 : "Island Ho!"	90
		11 : "Get Those Intruders!"	98
		12: "Head For Home, James!"	106
	Section	IV: "Is There No Way Of Stopping It?"	
		13: "The Highest Con In The History of	
		the World."	119
		14: "We'll Have To Ditch!"	125
172		15: "Accidental Misfire."	133
		16: "Dauringa Island Calling The World!"	144



The plot of MONSTER WHEEL gets going with a tramp steamer in the Indian Ocean passing by a volcanic island and witnessing a rocket being launched from it. Suzie Danz, a freelance photographer on board the ship traveling as a passenger, takes photos of the launch and subsequently becomes the innocent person dragged into the affair. The photos reach UNCLE. Solo and Kuryakin are dispatched to investigate. There are the usual exciting events that one expects with an action-adventure novel.

Meanwhile, on a parallel plot line, astronomers have noticed a giant wheel-type space station that suddenly appeared in orbit. The questions asked by astronomers, UNCLE, and every military and spy agency in the world are how it got up there without being noticed, and what its purpose might be. No nation admits to having launched it.

THRUSH is to blame of course, except that it isn't a real space station. It is an inflatable fake, secretly sold to the Egyptian government, who have delusions of grandeur. They learn of the fraud after UNCLE has the Wheel destroyed by an anti-satellite missile, then raids the THRUSH island.

McDaniel was the best of the UNCLE writers, and this novel is good reading. It stands up well even today, with our modern world of Islamic resurgents and Bigelow inflatable spacecraft providing plausibility.

Paperback #13 was also written by McDaniel, THE RAINBOW AFFAIR (1967). The novel uses many characters from the mystery genre, not under their own names, so it becomes a spot-the-spy competition. The first half is a mundane action-adventure about THRUSH trying to link up with an English criminal mastermind named Moriarty, pardon me, Johnnie Rainbow. He has a large organization and values his independence.

As an example, Solo and Kuryakin visit the Sussex Downs, where they encounter an incredibly ancient beekeeper named William Escott. That happens to be a pseudonym used by Sherlock Holmes in one of his cases in the canon. His interview with the UNCLE agents could have been lifted verbatim from Sir Arthur's texts. He impresses the agents with his deductions.

From there, the lads make a side trip to Stonehenge. McDaniel takes his chance to use the word "eldritch" in proper context, about the only time I can recall in my reading it being used outside Lovecraft. After assorted gunplay there with the bad guys, they return to Sussex Downs and are debriefed by Escott/Holmes.

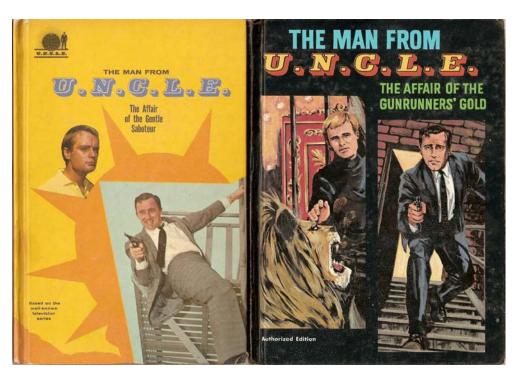
Then it's off to Rainbow's lair, where he and THRUSH have been disputing. No honour among thieves and all that.

The novel peters out after Rainbow is apparently assassinated by THRUSH. At least they think so, but there is enough ambiguity to allow Rainbow to make a return in the future. Solo and Kuryakin are called to their next assignment, and on that ambiguity the novel ends.

Hardcovers.

I have a couple of hardcover TMFU books, published for the young adult market by Whitman Publishing, Racine, Wisconsin. The text is large print and the language is simplified for teenagers. They are apparently the complete set, and both are authored by Brandon Keith.

The titles sum up the plots: THE AFFAIR OF THE GENTLE SABOTEUR (1966) and THE AFFAIR OF THE GUNRUNNER'S GOLD (1967). Not much more that can be said about them.



[to be continued]

ALL THAT GLISTERS: PART 2

by Dale Speirs

[Part 1 appeared in OPUNTIA #324.]

Bullion Economics.

THE METEOR HUNT (1905) by Jules Verne, was read as the 2006 translation by Frederick Paul Walter and Walter James Miller. This is about a giant pure gold meteor discovered heading to Earth. I could have filed this review in my column "We'll All Go Together When We Go", which deals with bolide impact stories, but the main emphasis of this novel is about economics and politics, so I'll put it here.

This is the corrected version from the original manuscript. Verne has suffered badly in translation for most of his novels. The list of atrocities committed against this particular story takes up a 21-page editors' foreword, explaining the errors and uncaring hackwork of previous editions. Worse yet, because many butchered translations are now in the public domain, publishers continue to reprint them for a quick dollar.

The basic plot is the discovery of a meteor of pure gold heading towards Earth, which touches off all manner of disputation, both scientific and political, and, of course, greed. It is mostly set in the USA, and Verne uses the book to get in jibes at the politics and economics of his day. Verne was also unlucky in love in his private life, and that is subsumed into a romantic subplot in this novel.

Initially the approach of the gold meteor is greeted with joy and avarice. The feuding between nations over whether or not the gold should be shared with all is soon settled in the traditional way; finders keepers, and possession is 90% of the law. (In Canada, federal law specifically states that meteorites belong to the landowner on whose property it fell.)

Soon the realization sets in that this may not be such a good thing. Verne wrote his novel in the gold standard era, when all debts between governments were settled by transfer of physical gold. It is discovered that the meteor contains three times more gold than the world's total stockpile. No PhD in economics is required to realize that tripling the supply on the day of its arrival will crash the price.

Pause for digression. Verne and those of his time could not conceive of our world afloat on currency that isn't even paper anymore but just electrons on a screen. Our currencies have been slowly depreciated over the decades since the world went off the gold standard in 1971. Three cents to mail a letter seems amazing to Millennials, but that was the rate when I was a little boy. In 1971, I knew middle-class retirees who lived comfortably on a pension of \$200 per month. A chocolate bar that filled the hand was five cents, whereas today a tiny bar about the width and length of two middle fingers costs more than a dollar.

Currency depreciation, better known as inflation, is done gradually by the central banks. The beauty of it is that the general public don't realize who the true culprits are. Instead they blame landlords for rising rents, employers for not paying a living wage in minimum-wage jobs, the post office for jacking up postage rates, and merchants for over-pricing goods and services.

Meanwhile, back at the meteor, stock markets go into a tizzy and the world economy has spasms. Astronomers announce that the meteor will make landfall in Greenland (today Kalaallit Nunaat). Every available steamship on both sides of the Atlantic is chartered by tourists and mining promoters. Denmark owned, and still does, the island. The Danish rub their hands with glee at the prospect. The opinion of the native Inuit didn't matter in those days.

Unfortunately or fortunately, depending on how you look at it, the meteorite (as it now becomes) hits a seaside cliff and collapses it into deep water. The meteorite is still red-hot and on falling into the ice-cold water, it explodes. The gold is vapourized and scattered into the ocean depths, beyond any hope of economic recovery. A deus ex machina ending that saves the world (and Verne) from dealing with the economic consequences that would have happened.



Queen Elizabeth visited the Bank of England vaults in 2012. She then asked the bankers why the Panic of 2008 occurred when they could have prevented it. They had the decency to blush.

Free Money.

It has been proposed that everyone is entitled to a guaranteed annual income, but fortunately so far that has not been done. Consider the following story.

"The Mozart Annuity" by Arthur Porges (1962 November, FANTASTIC) is about a fanatical music historian named Ernst von Karman, who has devoted his life to the study of Mozart. He often rants about what a great tragedy it was that Mozart died so young for want of proper medical treatment, and how the world might have been gifted with many more brilliant compositions had he lived.

Ernst's brother Karl is an inventor who has produced a time machine. It is cannot send living matter, ie, humans or animals, back in time, but metals and other inert items can be transmitted. Ernst decides to take advantage of the machine to send a gift of money to be used as an annuity to help the Mozart family over its rough spots.

Paper currency is, of course, useless. This story was written in the days when Americans were not allowed to own bullion gold (the law was not repealed until 1973, although they could own gold jewelry). Instead Ernst buys silver bars, and writes a note in German that the silver is to be used to buy an annuity for the Mozart family. Karl then beams it to the desk of a reliable banker of that era who will get it done.

The problem with changing the past is that we would not be aware of it. The story then shifts back to Ernst in the altered timeline, who now is not a Mozart fanatic, although still a music historian. He is writing up a brief history of the Mozart family, and notes that while young Mozart produced gems, his older self churned out a mountain of garbage. The Mozarts, father and prodigal son, lived dissipated lives and the annuity allowed young Mozart to quit scrambling for money and enjoy a riotous existence. All that silver corrupted him.

Although he still composed music, it was cheap stuff catering to the stalls and of no lasting value. The altered Ernst notes that if Mozart had died young, his music might have been better remembered. The silver from some unknown benefactor corrupted him into uselessness.

Star Trek Economics.

The reason that humans have valued gold and silver over 5,000 years of history is because physical bullion cannot be churned out of nothing, the way that paper currency is eventually over-printed and rendered worthless as a long-term store of value.

"Now Is Forever" by Dobbin Thorpe (1964 March, AMAZING) takes a look at what happens if matter duplicators are invented. The Reprostat has destroyed the world's economy because it can copy anything, whether food, machines, or even living organic beings. The collapse of society doesn't matter; just throw some raw material into a Reprostat, choose a pattern, and it will duplicate it. Currency becomes useless.

It will be a long while before Star Trek economics, or lack of them, become possible, but there is one thing on the horizon for the younger generation of today. 3-D printers are currently at the stage where personal computers were in 1975 but the time will come within the next few decades when most manufacturing is destroyed by them. Pick a pattern, shovel in some raw material, and out comes a product, with no factory needed.

Just as the Internet has almost finished off print media and is crippling brickand-mortar stores, so will 3-D printing wreck another portion of society. First the rich, then the middle class will have their own personal 3-D printers. The transition to the Economy of Abundance will be long and slow, but it will come. Not in my lifetime (I am 61) but certainly within the coming generation.



SEEN IN THE LITERATURE

Smith, E.M., et al (2016) Large gem diamonds from metallic liquid in Earth's deep mantle. SCIENCE 354:1403-1405

Authors' abstract: "Here we report that large, exceptional gem diamonds like the Cullinan, Constellation, and Koh-i-Noor carry direct evidence of crystallization from a redox-sensitive metallic liquid phase in the deep mantle. These sublithospheric diamonds contain inclusions of solidified iron-nickel-carbon-sulfur melt, accompanied by a thin fluid layer of methane \pm hydrogen, and sometimes majoritic garnet or former calcium silicate perovskite. The metal-dominated mineral assemblages and reduced volatiles in large gem diamonds indicate formation under metal saturated conditions. We verify previous predictions that Earth has highly reducing deep mantle regions capable of precipitating a metallic iron phase that contains dissolved carbon and hydrogen."

Speirs: If I understand this paper correctly, the liquid metal zones deep inside Earth produce bubbles of pure carbon, which are compressed into solids and eventually form the doorstop-sized diamonds.

Wang, G., et al (2016) **Persistent sulfate formation from London Fog to Chinese haze.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 113:13630-13635

Authors' abstract: "Exceedingly high levels of fine particulate matter (PM) occur frequently in China, but the mechanism of severe haze formation remains unclear. From atmospheric measurements in two Chinese megacities and laboratory experiments, we show that the oxidation of SO_2 by NO_2 occurs efficiently in aqueous media under two polluted conditions: first, during the formation of the 1952 London Fog via in-cloud oxidation; and second, on fine PM with NH_3 neutralization during severe haze in China. We suggest that effective haze mitigation is achievable by intervening in the sulfate formation process with NH_3 and NO_2 emission control measures. Hence, our results explain the outstanding sulfur problem during the historic London Fog formation and elucidate the chemical mechanism of severe haze in China."

Speirs: When I was a university student reading for a degree in horticulture, I took several meteorology courses. We studied the London event in depth

because air pollution affects plants as much as humans. The 4-day Great Smog of December 1952 killed 4,000 Londoners overnight. Another 8,000 died from respiratory complications over the next few weeks. The Chinese government hides the true statistics of their city smogs, but given the vast population there, the casualty rates are certainly much higher. This paper looks at how the sulphur dioxide and nitrous dioxide formed to render the smogs acidic.

Colchero, F., et al (2016) **The emergence of longevous populations.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 113:E7681-E7690

Authors' abstract: "The human lifespan has traversed a long evolutionary and historical path, from short-lived primate ancestors to contemporary Japan, Sweden, and other longevity frontrunners. Analyzing this trajectory is crucial for understanding biological and sociocultural processes that determine the span of life. Here we reveal a fundamental regularity. Two straight lines describe the joint rise of life expectancy and lifespan equality: one for primates and the second one over the full range of human experience from average lifespans as low as 2 years during mortality crises to more than 87 years for Japanese women today. Across the primate order and across human populations, the lives of females tend to be longer and less variable than the lives of males, suggesting deep evolutionary roots to the male disadvantage."



"Our study reveals three key findings. First, lifespan equality rises in lockstep with life expectancy, across primate species separated by millions of years of evolution and over hundreds of years of human social progress.

Second, industrial humans differ more from nonindustrial humans

in these measures than nonindustrial humans do from other primates. Third, in spite of the astonishing progress humans have made in lengthening the lifespan, a male disadvantage in lifespan measures has remained substantial, a result that will resonate with enduring public interest in male-female differences in many facets of life."

Suri, T., and W. Jack (2016) The long-run poverty and gender impacts of mobile money. SCIENCE 354:1288-1292

Authors' abstract: "Mobile money, a service that allows monetary value to be stored on a mobile phone and sent to other users via text messages, has been adopted by the vast majority of Kenyan households. We estimate that access to the Kenyan mobile money system M-PESA increased per capita consumption levels and lifted 194,000 households, or 2% of Kenyan households, out of poverty. The impacts, which are more pronounced for female-headed households, appear to be driven by changes in financial behavior; in particular, increased financial resilience and saving, and labor market outcomes, such as occupational choice, especially for women, who moved out of agriculture and into business. Mobile money has therefore increased the efficiency of the allocation of consumption over time while allowing a more efficient allocation of labor, resulting in a meaningful reduction of poverty in Kenya."

Bouslimani, A., et al (2016) **Lifestyle chemistries from phones for individual profiling.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 113:E7645–E7654

Authors' abstract: "Imagine a scenario where personal belongings such as pens, keys, phones, or handbags are found at an investigative site. It is often valuable to the investigative team that is trying to trace back the belongings to an individual to understand their personal habits, even when DNA evidence is also available. Here, we develop an approach to translate chemistries recovered from personal objects such as phones into a lifestyle sketch of the owner, using mass spectrometry and informatics approaches. Our results show that phones' chemistries reflect a personalized lifestyle profile. The collective repertoire of molecules found on these objects provides a sketch of the lifestyle of an individual by highlighting the type of hygiene/beauty products the person uses, diet, medical status, and even the location where this person may have been. These findings introduce an additional form of trace evidence from skin-associated lifestyle chemicals found on personal belongings. Such information could help a criminal investigator narrowing down the owner of an object found at a crime scene, such as a suspect or missing person."

Baca, M., et al (2016) Retreat and extinction of the Late Pleistocene cave bear (Ursus spelaeus sensu lato). SCIENCE OF NATURE 103:92

Authors' abstract: "The cave bear (Ursus spelaeus sensu lato) is a typical representative of Pleistocene megafauna which became extinct at the end of the Last Glacial. Detailed knowledge of cave bear extinction could explain this spectacular ecological transformation. The paper provides a report on the youngest remains of the cave bear dated to $20,930 \pm 140^{-14}$ C years before present (BP). Ancient DNA analyses proved its affiliation to the Ursus ingressus haplotype. Using this record and 205 other dates, we determined, following eight approaches, the extinction time of this mammal at 26,100 to 24,300 cal. years BP. The time is only slightly earlier, i.e. 27,000 to 26,100 cal. years BP, when young dates without associated collagen data are excluded."



"The demise of cave bear falls within the coldest phase of the last glacial period, Greenland Stadial 3. This finding and the significant decrease in the cave bear records with cooling indicate that the drastic climatic changes were responsible for its extinction. Climate deterioration lowered vegetation productivity, on which the cave bear strongly depended as a strict herbivore. The distribution of the last cave bear records in Europe suggests that this animal was vanishing by fragmentation into sub-populations occupying small

habitats. One of them was the Kraków-Czestochowa Upland in Poland, where we discovered the latest record of the cave bear and also two other, younger than 25,000 14C years BP. The relatively long survival of this bear in karst regions may result from suitable microclimate and continuous access to water provided by deep aquifers, indicating a refugial role of such regions in the Pleistocene for many species."

LETTERS TO THE EDITOR

fre Son@berg.com

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

[The mail art postcard below was received from Theo Nelson of Calgary. The view side of the postcard is shown on the next page.]

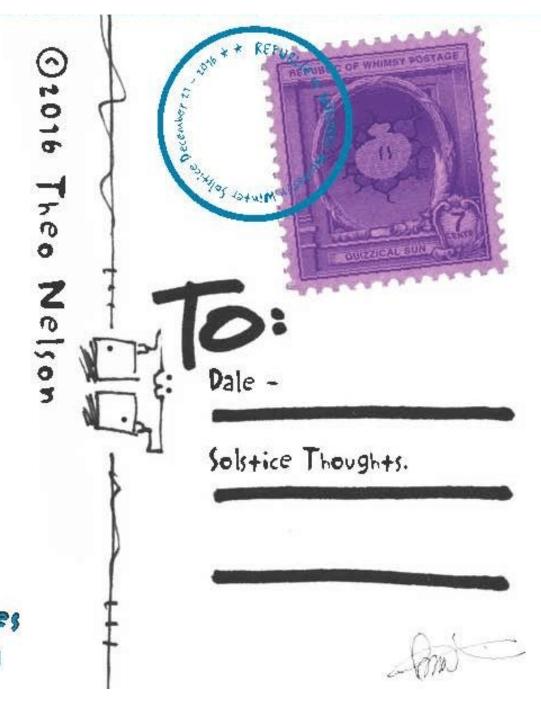
The Winter Solstice is a Story between the Arctic Ocean and its child, The Northern Ice Sheet.

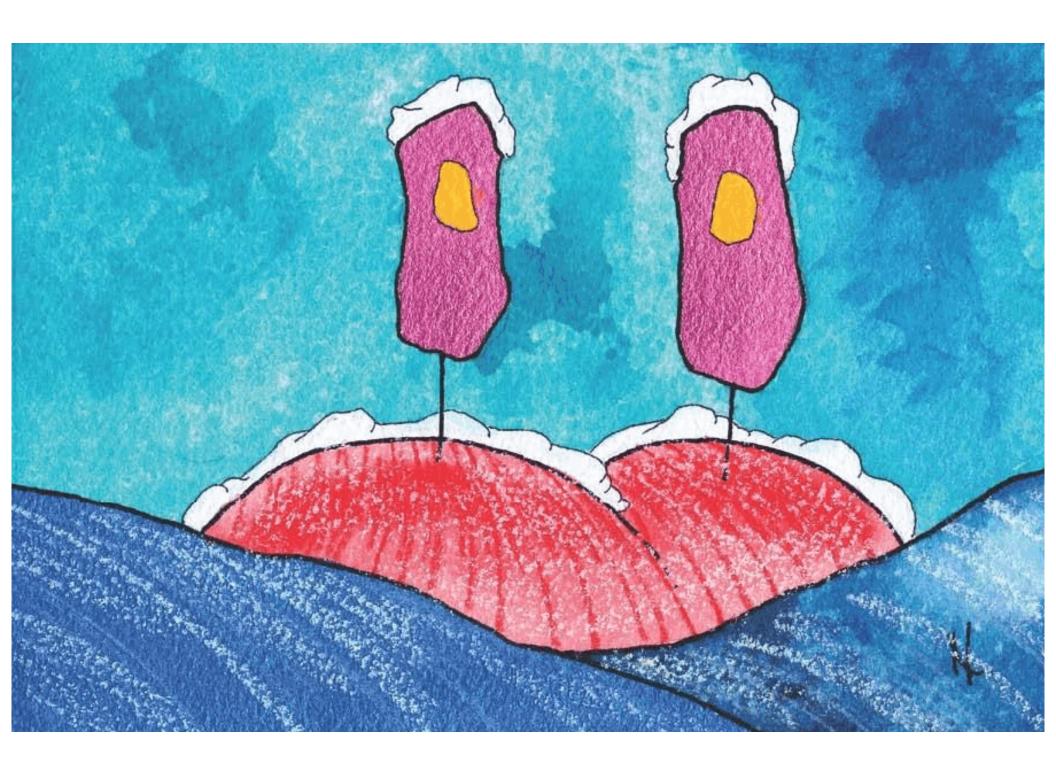
The Long Night lets the Arctic Ocean feed its child, But things have changed And the ocean grows warmer.

In Summer it eats more
And more of its child.
Soon it will consume all of it,
Come the end of Summer.

It can be used
As an example of how
We eat the planet,
Foolish lifeform that we are,

Snow Capped Egg Yolk Trees and Butt Cheek'd Hill #1





OLYMPIC PLAZA BRICKS

by Dale Speirs

As I type this on Boxing Day, it appears that New Year's Eve in Calgary will be just at the freezing mark, in which case I will go to the celebrations at the Olympic Plaza. When it was being built in the middle 1980s in preparation for the 1988 Calgary Winter Olympics, citizens had the opportunity to purchase bricks engraved as they liked (within reason, of course) for \$19.88 per brick. I splurged on one, and it was laid at the east side of the Plaza.

A few weeks ago there was a kerfluffle when City bureaucrats announced the bricks would be discarded for a re-paving of the Plaza. The uproar was immediate and they hastily backtracked on those plans. The fuss prompted me to stop by and take some photos. The view at right is looking west across the Plaza. I composed the photo so that my brick was at the centre of the bottom edge. If you squint, you can just make out my name, but to prevent eyestrain I also show a close-up below.



