

# OPUNTIA 351

Late August 2016

**Opuntia** is published by Dale Speirs, Calgary, Alberta. It is posted on [www.efanzines.com](http://www.efanzines.com) and [www.fanac.org](http://www.fanac.org). My e-mail address is: [opuntia57@hotmail.com](mailto:opuntia57@hotmail.com) When sending me an emailed letter of comment, please include your name and town in the message.

## A GOOD DAY IN THE BADLANDS

photos by Dale Speirs

On August 17, I made a trip out to the Red Deer River badlands, a two-hour drive east-northeast of Calgary. Among the flora are the plains pricklypears, or to put it in Latin, *Opuntia polyacantha*. Now you know how this zine got its title.

On the next three pages are views of Fox Creek Coulee, just upstream from Drumheller. A century ago there was a village here, but nothing is forever.

















Kneehill Creek flows into the Red Deer River just upstream of Drumheller. The canyon it carved contrasts remarkably with the dry flatlands above.

These photos were all taken at Hesketh, a hamlet on the banks of Kneehill Creek that once was a prosperous coal-mining town. Below is the descent.





Kneehill Creek is too muddy to drink but too thin to walk over.





The village smithy.





Some very strong contrasts between dry slopes (this page) and shaded canyon sides of the road. (next page). These two photos were taken from the same spot, showing opposite









## THE NEXT STEP IN ZINEDOM

by Dale Speirs

The Papernet has been crushed, not by the Internet, but by high postage rates, which have driven many zinesters and mail artists out of the field. Zines are surviving on the Internet as pdfs, although they are not as common as first predicted. The reason is the rise of blogs and social media. This isn't such a bad thing, as it keeps away the people who previously would have cluttered zinedom with crudzines.

Many Websites are now archiving older zines scanned by volunteers. In particular, [www.fanac.org](http://www.fanac.org) has been doing a tremendous job putting pdfs online of zines from the 1930s to 1960s. The other good resource for zines is [www.efanzines.com](http://www.efanzines.com), with a bigger collection of current zines albeit fewer older zines. Both sites are necessary for anyone researching the field or just wanting to read lots of zines.

Postings thousands of old zines online is, however, only the first step for modern zinedom. What is seriously lacking are good subject indexes for zines. It has been said that all knowledge is found in fanzines, but my observation is just try to find it. Most so-called indexes are actually checklists of zines, sometimes with tables of contents which only list titles and authors. These are of no value to anyone trying to find out the history of fandom in Ten Sleep, Wyoming, or Eckville, Alberta, much less big cities such as Toronto or New York City.

Subject indexes require work, lots of it, which is why they are scarcer than hen's teeth. OPUNTIA has been indexed from the very beginning, first on 3x5 index cards, and later as a WordPerfect document. Converted to pdf, the cumulative index can be found online at the aforementioned two zine Websites. I have also begun cross-referencing articles at the start of each review column or ongoing essay series. This saves the interested reader, if one exists, from the trouble of having to consult the cumulative subject index for previous installments of a column.

Where are the other zine subject indexes? Those who publish should be building them and cross-referencing to allow readers to go into a subject in further detail or learn the history of a subject or theme. The indexes are not just for graduate students researching a thesis, but can help readers learn more about the past of SF fandom and zinedom. Unindexed knowledge is lost knowledge.

## STEPHEN LEACOCK: PART 2

by Dale Speirs

[Part 1 appeared in OPUNTIA #64.1A.]

Stephen Leacock was Canada's greatest literary humourist, who was at his peak in the first half of the 1900s (he died in 1944). His best work was *SUNSHINE ADVENTURES OF A LITTLE TOWN*, which I reviewed a decade ago in OPUNTIA #64.1A, along with five other books of his. His literary style was the inversion method, taking a setting and reversing it to see what humour would result. He was also an early writer of what today we call alternative history. Any AH anthologists reading this review should look into his works.

Leacock was a prolific writer. I have two metres of his books on the shelf, by no means a complete set. He wrote many short stories and essays which were compiled into annual collections. He is unknown to the younger generation today, who watch videos instead of reading old books. In my retirement, I am now reading through my library a final time, so after a decade of neglecting his books, will now begin a new extended series about his writings.





**New World In The Morning.**

AFTERNOONS IN UTOPIA (1932) takes aim at the flood of utopian stories that cluttered the bookstores in Leacock’s time. A Great War, the short-lived recession of the early 1920s, and what was to become the worst ever depression at the time this book were published, prompted numerous articles and books on how to fix the world. Some were goofy, some were harmful (governments cut their budgets), and some were outright deadly (fascism and Communism).

Utopian stories generally follow the narrator after he revives from a century-long sleep, a time machine trip, or any other method used to catapult him into the far future. He is usually given the grand tour by a toga-clad lecturer expounding at great length on all the wonders that will be, while the narrator is agog in awe.

Leacock turns this around. The first chapter “Dear Old Utopia” begins with the narrator awakening a century hence. He is in a chamber lit by diffuse light with strange furniture, but since his era had diffuse lighting and he never paid any attention to furniture styles, why would he be in awe?

*“Being well acquainted with Utopias I knew that I had only to wait patiently and they would start something.”* An attendant wearing a loose smock and slippers shows up, just as expected, and takes him to their leader Dr Oom, who opens the conversation with *“Stranger”, he said, “Thou art awake, welcome”*.

The narrator wonders why Oom uses a form of English obsolete for four centuries, but then he remembers they always speak that way in Utopia books, and dress up like ancient Greeks. Dr Oom is anxious to lecture about economics, wages and labour, capitalistic classes, and world peace. He is frustrated because the narrator cuts him off from lack of interest. The narrator didn’t care about that sort of rubbish in his own time, and doesn’t want to know how it is done in the future.

Before Dr Oom can suggest it, the narrator supposes out loud that the usual tour will be given, starting with a rooftop view of the ultramodern city, complete with glass domes and moving sidewalks. This further annoys Oom, who resents being trumped like that. Work is automated, so the citizens are bored to tears trying to find something useful to do. The narrator spends his time squiring Oom’s beautiful daughter around, ignoring her jabber about how wonderful the future is, and instead buttering her up because he wants to \*\*\*\* her.

The succeeding chapters parody utopias of all kinds, from military to medical to education to economics. The League of Nations, still there in the far future, tries to start wars so it can justify its existence as peacekeepers. If there really was world peace, then millions would be unemployed, from soldiers to munition manufacturers to tradesmen who reconstruct ruined buildings.

Leacock was prescient when he predicted 55 different genders once men and women achieve equality, just as it did in our timeline with transgender this, that, and the other thing.

Like many of Leacock’s books, this was a collection of short stories gathered together which do not read well if taken all at once. They were meant to be read one or a few at a time, and become tedious if read in one sitting.

**Satire.**

NONSENSE NOVELS (1911) takes potshots at the literary trends of the day, using short stories to skewer them. Sadly, many of those types of novels are still being published today.

“Maddened By Mystery, Or, The Defective Detective” hardly needs explaining. A detective, not S\*\*\*\*\* H\*\*\*\*\*, is asked to investigate the disappearance of the Prince of Wurttemberg, and immediately begins deducing, sending telegrams, and interviewing suspects. His solution of the case is marred by the fact that no one told him the Prince was a purebred dachshund.

“Q: A Psychic Pstory Of The Psupernatural” is a story about a man to whom nothing much happened, yet every step of the story is seen as an amazing demonstration of psychic abilities. A man sees a dog walk behind a brick wall and vanish from sight, as if by magic. If he felt an omen, such as feeling drowsy, and then slept well in the night, that was proof of second sight. If his wedding day approached and the event went off without any problems, that was proof of a guardian angel.

“The Man In Asbestos” is a utopian story about what will happen to people when machines do all the work. No, not have learned discussions in quiet groves of academia about philosophy, but be bored to tears because there is nothing to do.



BEHIND THE BEYOND (1913) takes on more clichés of that age, starting with the problem play, a popular thing on the stage back then. The plot was what a later generation would refer to as soap opera. In those days before radio and television, when movies were black-and-white silents, the public went to the theatre frequently.

Leacock writes a parody of the typical problem play, an easy thing to do, like shooting a sitting duck. “... *a man in a check tweed suit walks on to the stage, only one single man. Because if he had been accompanied by a chorus, that would have been a burlesque; if four citizens in togas had been with him, that would have been Shakespeare; if two Russian soldiers had walked after him, that would have been melodrama. But this is none of these. This is a problem play.*”

Several short stories follow, mostly Walter Mitty-type stories written two decades before James Thurber invented Walter Mitty. Most are forgettable, but one essay at the end stands out and should be published on every university campus.

“Homer And Humbug” points out what none dare say on a campus, at least within the hearing of professors who teach ancient literature. The old Greeks and Romans wrote primitive literature that is honoured only because it is old. Leacock suggests that THE ILIAD, for example, could have the Catalogue of Ships deleted with no loss to posterity. Leacock concludes: “*The classics are only primitive literature. They belong to the same class as primitive machinery and primitive medicine.*”

MOONBEAMS FROM THE LARGER LUNACY (1915) has a foreword by Leacock that cheerfully states his purpose: “*The prudent husbandman, after having taken from his field all the straw that is there, rakes it over with a wooden rake and gets as much again. The wise child, after the lemonade jug is empty, takes the lemons from the bottom of it and squeezes them into a still larger brew. So does the sagacious author, after having sold his material to the magazines and been paid for it, clap it into book covers and give it another squeeze.*”

The stories satirize the reading public’s follies. There are those who only read the newest novels, never anything more than a few months old, and only those from their own clique. They would have made good reviewers for LOCUS magazine. Others are only interested in sensation, what Leacock terms the

thousand-guinea novels. Many of Leacock’s satires focus on the increasing emphasis on speed. If it can’t be read in five minutes, it isn’t worth reading. His world was much slower than ours today, yet even then he was concerned about the rush to be first rather than best. We have You Tube videos for a generation for whom a half-hour sitcom is too long.

Our Twitter generation isn’t much different than Leacock’s description of a German general who published books in between fighting World War One battles. One gets the impression that he went into battle with a gun in one hand and a typewriter in the other. Today if people see an accident on the street, their first instinct is to take a photo and post it online.

“Aristocratic Anecdotes” parodies the society columns of that era, where the doings and utterances of Lord So-and-So or Lady Whomever were breathlessly reported in newspapers the way that Hollywood actors and rock musicians are reported in our time. The trivial doings of brainless nobility weekending in the country were published in newspapers of the time for the lumpenproletariat to chatter about. We’ve moved beyond that, and instead chatter about which celebrity tweeted what about some other celebrity.

WINSOME WINNIE (1920) is a collection of novellas and short stories that parody the popular kinds of novels of that era. Picking one as a representative sample, “Who Do You Think Did It?” begins with a newspaper editor sending a reporter to cover a murder. The editor is described thus: “*Through this man’s great brain passed all the threads and filaments that held the news of a continent. Snap one, and the whole continent would stop.*” Indeed. Every graveyard is filled with people who thought they were indispensable.

The reporter barges into the murder investigation and naturally takes over the case from the police, who are baffled as usual. He is a self-confident incompetent, the worse kind. A first-year law student could get the case thrown out of court but since the reporter lets the murderer get away while lecturing the police, there is nothing to bring before a judge.

Miss Marple and her ilk, who would plague mystery fiction for decades to come, were easily anticipated by Leacock in this story. He didn’t have to work too hard at it, for even then the manor house murder mystery was so common that it became a cliché.



THE GARDEN OF FOLLY (1924) takes shots at self-help books on how to succeed in life, health, business, and open-letters to assorted personalities. Sadly, much of the material is still relevant today.

Leacock spoofs get-rich-quick schemes that promise a salary of a million dollars within a year by following the simple steps of a man who has made it, although we do not know that he actually did. But the ad says he did, and they wouldn't print it if it wasn't true. Good health can be assured by eating lots of Humpo or Balso, depending on which advertisement you answer. It's a good thing we will never see that sort of fraud on the World Wide Web.

Open letters are generally written by people whose communiques would ordinarily be trashed unread by the recipients. Such authors are confident that they will never be in a position where they actually have to deliver on their ideas. Leacock spoofs these authors with open letters to the League of Nations, a king, a plumber, a hotel manager, a prohibitionist, and a spiritualist, secure in the knowledge that these letters will never be read by the recipients.

ZINE LISTINGS

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

BANANA WINGS #63 (Editorial whim or The Usual from Claire Brialey and Mark Plummer, 59 Shirley Road, Croydon, Surrey CR0 7ES, England) SF fanzine with thoughts on fandom, drinking stories, and letters of comment.

ALTERNATIVE HISTORY REVIEWS  
by Dale Speirs

What Hath Rudolf Wrought?

THE MAMMOTH BOOK OF DIESELPUNK (2015) is an anthology edited by Sean Wallace about a wannabe genre set in the period between the two world wars. In the foreword, Tobias Buckell calls it a marriage of science fiction and Art Deco. In going through the stories, I found that very few could qualify by the name of dieselpunk. Most were straightforward alternative histories of the decades between the wars, and some were military SF.

Dieselpunk is an inevitable outgrowth from the words “cyberpunk” and “steampunk”. Just as lazy news reporters label every political scandal as Whatevergate, so it is that “punk” has become a fad word for new genres. Bruce Bethke invented the word “cyberpunk” as the title of his 1980 short story, although Gardner Dozois, editor of ASIMOV’S, did the most in subsequently publicizing it as part of a movement. Kevin Wayne Jeter invented “steampunk” in a letter to the editor of the 1987 April issue of LOCUS. I don't think that “horsepunk” or “cowpunk” will catch on, because they would be subsumed into the westerns genre. “trolleyjunk” might do for us transit fans, but it's not a subject for exciting stories.

The anthology starts off with “Rolling Steel: A Pre-Apocalyptic Love Story” by Jay Lake and Shannon Page. It is about a freelance armoured vehicle owner named Topper, who calls his vehicle “Rough Beast”. He is heading to a Pennsylvania steel mill in search of some tungsten bars. The AV name was chosen by the authors so they could use a catchy first line: “*Rough Beast slouched toward the Bethlehem steel mill.*”

The USA has broken apart, and the Wehrmacht is moving along the Eastern Seaboard, clearing their way with poison gas. As Topper grinds onward, he picks up a prostitute en route. They squabble along the way but a romance develops in the last few pages and the plot threatens to turn into a rom-com. The story is told mostly in a mean-streets New Wave style that I'd thought we'd seen the last of back in the 1970s, and then becomes military SF.

“Don Quixote” by Carrie Vaughn is set during the Spanish Civil War. A giant tank, diesel powered of course, is helping the Loyalists turn the tide against Franco. An American newspaper reporter goes along for the ride. The tank,



named Don Quixote, not once but twice takes out an enemy battalion in minutes. The reporter realizes that the two men who built and run the Don Quixote, and are now proudly showing it off to him, could indeed reverse the fortunes of the war. He knows that if they succeed, it wouldn't take long for the Nazis to find it, buy it from them, and build hundreds of them for the Wehrmacht. The reporter sabotages the Don Quixote and keeps our timeline on its course. A secret history rather than an alternative history.

“The Little Dog Ohori” by Anatoly Belilovsky is an alternative history about a Soviet-Germany war in the late 1930s spreading from Ukraine to central Asia. It isn't much of a story, just a doctor chatting with a soldier whose wife is dying. Details are thrown in about the timeline changes. The woman dies, and that's it. A vignette from an incompletely thought out alternative history.

“Vast Wings Across Felonious Skies” by E. Catherine Tobler is about the flight of an experimental aircraft that encounters a mysterious storm. It is a time warp that throws the airplane five months into the future. The pilot is a Nisei, which wasn't a problem when she began the flight, but when the aircraft lands at a military base, it is just after Pearl Harbour. A standard sort of time travel plot which has nothing to do with dieselpunk by any definition.

“Instead Of A Loving Heart” by Jeremiah Tolbert is narrated by a diesel-powered cyborg who works for a mad scientist. Dr Octavio squabbles with his daughter. (Why do mad scientists only have daughters? Don't any of them have sons? I've always wondered.) He is working on an ultimate thinking machine that will rule the world, bwah ha! ha!, but never finishes because British commandos raid his castle and destroy the machine to forestall the Nazis. A good pulp story, 75 years too late.

“Steel Dragons Of A Luminous Sky” by Brian Trent is yet more military SF, with the Japanese using robots against the Chinese during the 1930s war. The twist is that the Mongolians are using the conflict to divide and conquer while taking over the world.

“Tunnel Vision” by Rachel Nussbaum starts off with airships cluttering the skies, the standard method of identifying a story as alternative history. This time they're not just incidental background. The airships destroyed the railroad industry. I doubt the economics of that, but let that go as a given to make the story work. The narrator is a scion of a railroad family, who finds and restores a tunneling mole machine that had been used to cut tunnels for train tracks. He

has assorted adventures but loses the machine when it drills into pure sand and sinks down out of reach.

“Thief Of Hearts” by Trent Hergenrader takes place after the Spanish Civil War ended, a war that was fought with dirigible bombers and automaton soldiers supplied to the Nationalists by Germany and Italy. Hieronymus Dismas is a master thief who has been making life difficult for the aristocracy.

The tables are turned when Don Horacio, one of the nobles, dragoons Dismas into delivering a letter to Dona Dolores, a woman who jilted him and is marrying a duke for the money. She in turn captures Dismas, removes his heart and puts it in a preservative fluid, and replaces it with a mechanical heart. Dismas then has to bounce back and forth between the two as they finish their lovers' spat. He eventually gets his revenge by stealing everything they both own.

“In Lieu Of A Thank You” by Gwynne Garfinkle is a variation on the mad scientist theme of vivisectioners such as Moreau. In this case though, the virginal young woman is quite enthusiastic about being transformed into a flying creature by Dr Ernest Clive. She wants to be like an angel and fly. Clive has already converted put gills on canaries and wings and air-lungs on fish. Why? Because he can. He is a mad scientist, after all. Alas, the woman's heroic fiancée rescues her just as she is about to go under the knife. An interesting twist.

“This Evening's Performance” by Genevieve Valentine takes place in Britain after the Great War, when the automaton soldiers who won it were converted to civilian use. They made good train conductors, porters, and actors. The latter, called Dramatons, soon put human actors on the unemployment line. The story is told through the eyes of a troupe who face the slow and inevitable decline.

“Into The Sky” by Joseph Ng is set in China, where Emperor Qing's soldiers guard the Great Wall with balloons and ground troops wearing exoskeleton armour in the style of the Terracotta Warriors. There is some melodrama but the story was ruined for me when the author mentioned that the balloons were steered by sails, an impossibility.

“The Double Blind” by A.C. Wise is not alternative history, dieselpunk, or much of anything else but a conventional revenge story. A woman photographs



bad guys in compromising situations to get even with them. Better suited for HITCHCOCK or ELLERY QUEEN magazines.

“Black Sunday” by Kim Lakin-Smith is something about water miners in an overheated Oklahoma where the aquifers have been sucked dry. I skimmed the story at high speed. Boring in more ways than one, and moved at a tepid pace.

“We Never Sleep” by Nick Mamatas supposes that Rudolf Diesel never committed suicide as in our timeline. Instead, he came to America in disguise to build a factory that produces diesel-powered cyborgs. Well, at least this story stuck to the theme.

“Cosmobotica” by Costi Gurgu and Tony Pi has Henri Coanda sending a robot probe to the Moon in 1939 for the greater glory of his native Romania. In our timeline, Coanda was a pioneer aviator who had a dynamic fluid flow process named after him. (See Wikipedia for details.) The mission is fraught with alarums and excursions, sabotage by enemy agents, and British spies inside the Romanian space agency who have compromised the spacecraft. The mission succeeds at the last minute thanks to some clever work by Coanda. A good story in the Campbellian ANALOG style.

“Act Of Extermination” by Cirilo S. Lemos, translated by Christopher Kastensmidt, is set in a Brazilian Empire with airships and robots, so it must be an alternative history. The plot concerns a three-way struggle between the Brazilian army, the power behind the throne of a senile emperor, and outside powers wanting to take control of the Empire using remotely operated robots. The story dragged at points, and could have been compressed a bit.

“Blood And Gold” by Erin M. Hartshorn starts off with a dragon in Manhattan during Prohibition. It finds the body of a woman shot dead by a mobster, and becomes mixed up in a gang war. It feeds on blood, hence its willingness to participate, and like any good dragon, wants gold. Basically the story is a cross between a Mary Beth Sue fantasy and a crime noir story.

“Floodgate” by Dan Rabarts is set in 1922, the eighth year of the Great War. The story is about a female reconnaissance pilot in North Africa, where the German and Allied biplanes dice with each other regularly. The Loch Ness monster has been kidnaped by the Kaiser’s minions, to be used as a secret weapon against perfidious Albion. There is a twist at the end that doesn’t seem plausible.

“Dragonfire Is Brighter Than The Ten Thousand Stars” by Mark Robert Philips postulates a Roman Empire still in existence by the 1930s and operating as a Stalinist totalitarian state. Roma has always been at war with Eastasia, pardon me, the Mandate of Heaven, as the Chinese Empire is called. The Romans rely on dragons and dragon riders a la Pern to a startling degree. The Chinese lost their dragons to some sort of disease and have replaced them with aircraft and a new type of explosive brighter than a thousand suns. The balance of power will shift.

An interesting alternative history. I have read lots of Rome-never-fell stories. To my recollection, this is the first one that supposes a modern-era Roman Empire would use the same methods of controlling its citizens as the Soviet Union. If it weren’t for the dragons, this would be a plausible alternative history.

“Mountains Of Green” by Catherine Schaff-Stump is set in post-Hiroshima Japan. The story is about some young Japanese struggling to survive the poverty of the American occupation. They deal with a bad gaijin by invoking a giant turtle to stomp him and his house flat. It’s all done with mutations.

“The Wings The Lungs, The Engine The Heart” by Laurie Tom (watch that punctuation; it is correct for the story) takes place on the Western Front, where the Kaiser has surgical teams to reanimate dead soldiers. One candidate for revival is Manfred von Richthofen, who gets a mechanical heart.

The technology is primitive, and the public cannot be allowed to see von Richthofen is tied to a large box with the artificial heart. However, there is no reason it couldn’t sit in the rear seat of a biplane. Richthofen flies again, but his additional kills make no difference to the war, which is ending the way it must because of the tide of history. He dies in battle a second time, with no revival.

On the whole, the stories in this anthology were good, but few kept to the theme of dieselpunk. The definition used by the editor seems to be based on the time period, not the technology. Many of the alternative histories could have been placed in other decades without changing more than a few sentences. If dieselpunk is to catch on, it needs better focus instead of being a variation on steampunk.



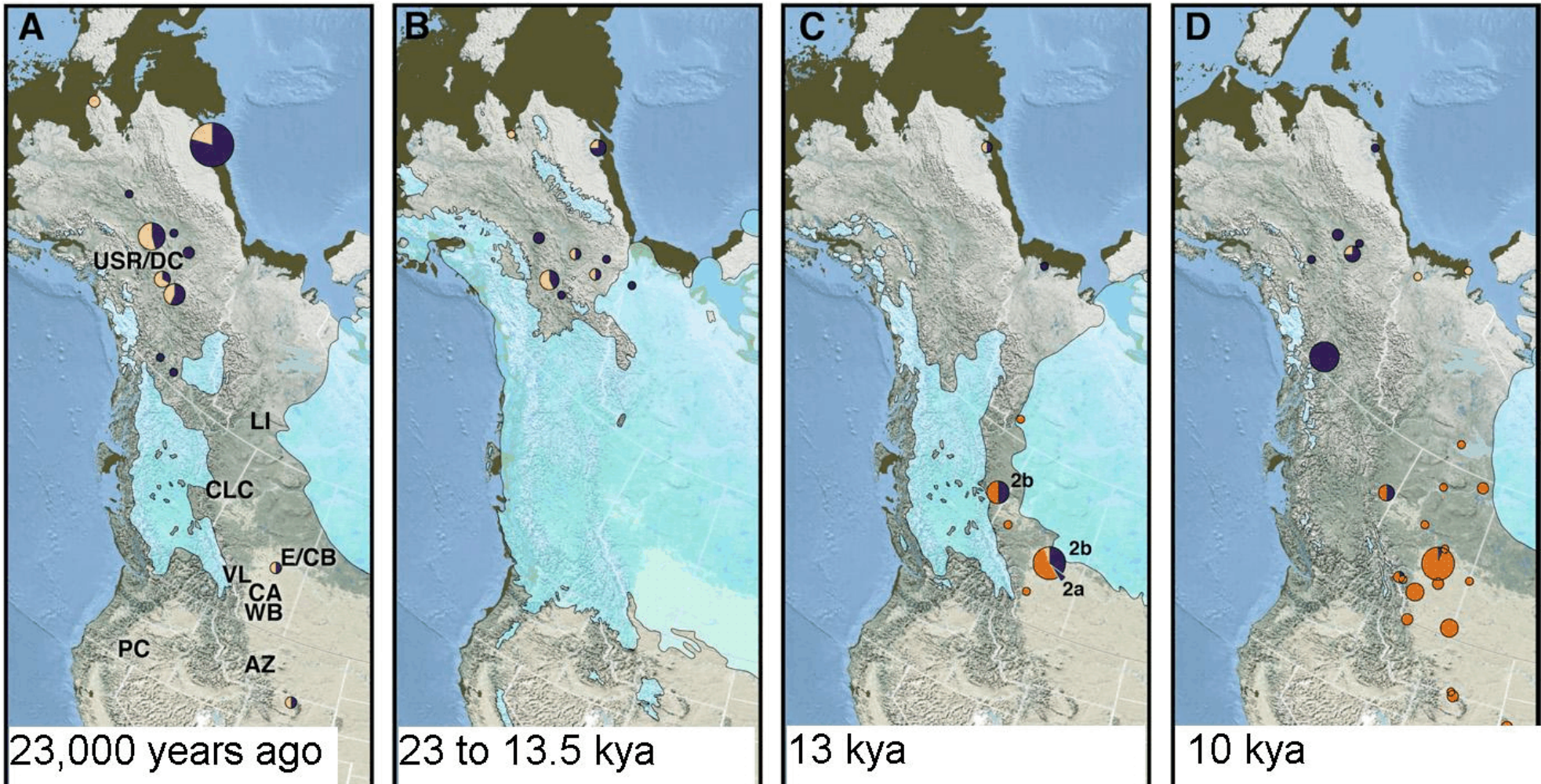
SEEN IN THE LITERATURE

Heintzman, P.D., et al (2016) **Bison phylogeography constrains dispersal and viability of the Ice Free Corridor in western Canada.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 113:8057–8063

Authors’ abstract: “The Ice Free Corridor has been invoked as a route for Pleistocene human and animal dispersals between eastern Beringia and more southerly areas of North America. Despite the significance of the corridor, there are limited data for when and how this corridor was used. Hypothetical uses of the corridor include: the first expansion of humans from Beringia into the Americas, northward postglacial expansions of fluted point technologies into Beringia, and continued use of the corridor as a contact route between the north and south.”

“Here, we use radiocarbon dates and ancient mitochondrial DNA from late Pleistocene bison fossils to determine the chronology for when the corridor was open and viable for biotic dispersals. The corridor was closed after about 23,000 until 13,400 calendar years ago (cal y BP), after which we find the first evidence, to our knowledge, that bison used this route to disperse from the south, and by 13,000 y from the north. Our chronology supports a habitable and traversable corridor by at least 13,000 cal y BP, just before the first appearance of Clovis technology in interior North America, and indicates that the corridor would not have been available for significantly earlier southward human dispersal. Following the opening of the corridor, multiple dispersals of human groups between Beringia and interior North America may have continued throughout the latest Pleistocene and early Holocene.”

[The maps are from the article.]





Wu, Q., et al (2016) **Outburst flood at 1920 BCE supports historicity of China's Great Flood and the Xia dynasty.** SCIENCE 353:579-582

Authors' abstract: *"China's historiographical traditions tell of the successful control of a Great Flood leading to the establishment of the Xia dynasty and the beginning of civilization. However, the historicity of the flood and Xia remain controversial. Here, we reconstruct an earthquake induced landslide dam outburst flood on the Yellow River about 1920 BCE that ranks as one of the largest freshwater floods of the Holocene and could account for the Great Flood. This would place the beginning of Xia at ~1900 BCE, several centuries later than traditionally thought. This date coincides with the major transition from the Neolithic to Bronze Age in the Yellow River valley and supports hypotheses that the primary state-level society of the Erlitou culture is an archaeological manifestation of the Xia dynasty."*

*"China's earliest historiographies, including Shujing (Book of Documents) and Shiji (Records of the Grand Historian, by Sima Qian), tell of the Great Flood, a lengthy, devastating flood of the Yellow River. The culture hero Yu eventually tamed this flood by dredging, earning him the divine mandate to establish the Xia dynasty, the first in Chinese history, and marking the beginning of Chinese civilization. Because these accounts laid the ideological foundations for the Confucian rulership system, they had been taken as truth for more than 2500 years until challenged by the "Doubting Antiquity School" in the 1920s."*

*"Traditionally, historians have dated the start of Xia to ~2200 BCE, whereas the government-sponsored Xia-Shang-Zhou Chronology Project adopted the date as 2070 BCE, leaving a chronological gap in associating Erlitou with Xia. Other scholars see Xia purely as a myth fabricated to justify political succession. Scholars also have long sought a scientific explanation of the Great Flood, with even Lyell mentioning it, yet no evidence for it has been discovered. Here, we present geological evidence for a catastrophic flood in the early second millennium BCE and suggest that it may be the basis of the Great Flood, thereby lending support to the historicity of the Xia dynasty. The evidence found in our investigations along the Yellow River in Qinghai Province includes remains of a landslide dam, dammed lake sediments upstream, and outburst flood sediments downstream that allow us to reconstruct the size of the lake and flood."*

Paini, D.R., et al (2016) **Global threat to agriculture from invasive species.** PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA 113:7575-7579

Authors' abstract: *"Here, we present an analysis of almost 1,300 known invasive insect pests and pathogens, calculating the total potential cost of these species invading each of 124 countries of the world, as well as determining which countries present the greatest threat to the rest of the world given their trading partners and incumbent pool of invasive species. We find that countries vary in terms of potential threat from invasive species and also their role as potential sources, with apparently similar countries sometimes varying markedly depending on specifics of agricultural commodities and trade patterns. Overall, the biggest agricultural producers (China and the United States) could experience the greatest absolute cost from further species invasions. However, developing countries, in particular, Sub-Saharan African countries, appear most vulnerable in relative terms. Furthermore, China and the United States represent the greatest potential sources of invasive species for the rest of the world."*

*"We find that far from being saturated or homogenized, many countries are open to substantial ongoing threat of invasion from known pests and/or pathogens. Countries that are large crop producers are most at risk in absolute terms, whereas numerous developing countries are disproportionately vulnerable to invasion in relative terms. Countries with diverse commodities and/or large trade volumes are likely the greatest source of invasive pests and pathogens, whereas countries with developing economies likely play less of a role as sources of invasion. As trade volumes continue to increase and more trade connections are made between countries, the pressures from invasive species will only intensify."*



**COWTOWN UTILITY BOXES**



Left: 50 Street SW and Richmond Road.  
Below: 8 Street SW and Durham Avenue.

