

NAFTA: PART 1

by Reid Offers

Long before the time of the twenty-four hour news cycles that currently consume mainstream media and alike, the North American continent was a very different place both economically and politically. Seething at the mouth to get back to being the world stage's main performer, the American public elected a new president on the Republican Party ticket, Ronald Reagan, in a landslide winning the vote in forty-six of the fifty states of the 1980 presidential election. Around the same time, Canada was in the process of passing the Constitution Act of 1982 to be fully patriated from the British Parliament, effectively giving Canada full sovereignty as a nation. Likewise, our neighbor to the far south, Mexico, was going through an economic crisis of their own and the country's governing party decided it was time to liberalise their economic policies and seek more open trade policies.

CUSFTA:

Right around the era of the hit movie "Dirty Dancing" starring Patrick Swayze and Jennifer Grey, Canada and the United States entered into a precursor to NAFTA called the "Canada-United States Free Trade Agreement," or CUSFTA, in the late 1980s. Unlike the current platform of anti-globalisation maintained by the Republican Party today, the Reagan administration spearheaded the negotiations of CUSFTA and started to open American economic policy to global investment and free trade. John Turner, leader of the Liberal Party of Canada at the time of the negotiations, was strongly against the signing of the agreement saying he would "tear it up" if he ever got into power. Politics aside, the two countries finalised the agreement with the objectives of eliminating trade barriers between the two countries, creating conditions of fair compe-

titution, and liberalizing conditions for investment. The trade agreement between the two countries was implemented successfully on January 1, 1989.

Mexico Joins the Party:

Following the signing of CUSFTA and the 1988 presidential election of George H.W Bush, Mexican President Carlos Salinas de Gortari sent delegation to Washington D.C with hopes of entering into a free-trade agreement with the United States. At first, Prime Minister Mulroney was reluctant to join the negotiations because of the relatively low levels of trade occurring between Canada and Mexico; however, to avoid entering into separate agreements with the two countries, Mulroney finally decided to join the negotiating table. A little more than a year later, the leaders of the three countries came to a consensus and signed the North American Free Trade Agreement or NAFTA in 1992. With all the parties in harmony, the agreement was ratified by all three legislatures in 1993. NAFTA sought the purpose of eliminating trade barriers, increasing investment, and providing protection to intellectual property.

NAFTA in 2018:

Since the implementation of the agreement, all three of the countries' economies have grown significantly. Canada's exports of goods and services grew to 44% of its total GDP in 2000. In 2015, 78% of Canada's total exports were all sent to the United States and Mexico. Since 1993, there has been over \$1 trillion of merchandise exchanged in North America alone because of the agreement. Trade between Canada and Mexico has grown to eight times what it was before. Despite all of these advantages achieved from NAFTA, the administration of President Donald Trump wants Canada and Mexico to come back to the bargaining table to revitalize NAFTA in order to, in his eyes, better benefit the American worker and economy. While talks are currently in progress, the future of the agreement remains up in the air.

THE BOLT NEWS

THE PRICE OF FREE TRADE



READ ABOUT THE HISTORY OF NAFTA AND AN INTRO TO WHERE IT STANDS NOW ON PAGE 15

P1

GRETA VAN FLEET

Kohan Eybergen brings a recap and review of Michigan rock band Greta Van Fleet from their Edmonton performance on September 11.

P5

SPACE NEWS: FAR OUT

Tyler DeWacht looks out beyond the bright, burning centre of our solar system at what's out in the farthest reaches--including what we've put there.

P7

THE HISTORY OF COFFEE

Natasha Eklund examines the origins of a university student's lifeblood: coffee. Where did it come from? Who discovered it? Would you believe it was a goat?

P10

GRAND OPENING: IKRC

Marina Gendi reports on the grand opening of Concordia's brand new Indigenous Knowledge and Research Centre from September 21.

GRETA VAN FLEET CONCERT REVIEW

by Kohan Eybergen

“Check out this great new band, you’ll love them, they sound a lot like Zeppelin!” – My dad, circa 2017.

Not exactly a comparison that leaves you thinking, “ehh, they might be alright,” and man, did Greta Van Fleet not disappoint. Directly after listening to “Highway Tune” and “Safari Song” for the first time, I immediately had to look up some videos of live performances. In this age of mass production of music, I was thinking that that there was absolutely no way that this band sounded this good live, especially the lead singer, Josh Kiszka’s, voice.

Yeah, they’re that good. They’re better than good. After spending a few hours watching Greta Van Fleet live shows, I was determined that I needed to see them in person. And finally, a year and a half later, they were scheduled to play in Edmonton at the Shaw Conference center.

At the Shaw, the first thing that struck me was the disorganization of the entrance lines. Clearly the venue wasn’t prepared for the crowd size, as there were no rope dividers or anything like that for the entrances or the merch lines. The next thing that I noticed was the diversity of age in the crowd. There was probably about a sixty year spread between the youngest and oldest fans, and every age in between. It was fascinating; I’ve never been to a concert that had such a wide demographic in fan age. It was also super cool to see so many parents with their kids bonding over music.

Once inside, it wasn’t long until the opening act,

Dorothy, started their set. Dorothy is a hard/blues rock group from California, and oh man did they make an impression on myself as well as the rest of the crowd. I won’t go on about them in this article due to lack of space, but I would highly recommend checking them out if you enjoy rock music.

As Greta Van Fleet walked on stage, the crowd was going nuts with cheers, applause, and a general rush to the front of the standing area, packing people together shoulder to shoulder. The band all looks very 70s: leather, flowers, feathers, headbands, long hair, a general lack of shoes and shirts, and they looked fantastic!

They open with “Highway Tune,” their first single from their debut EP. The opening riff is monstrous in the confines of the Shaw, and Josh Kiszka’s scream prepares the audience for the blues rocker they’re about to witness. The crowd reacts immediately with screams and cheers, and continued to dance and headbang throughout the rest of the show. The energy in the place was truly amazing, both from the band and the fans.

Jake Kiszka’s opening guitar for “Edge of Dark-



genic effects, please talk to your doctor, therapist or psychiatrist about switching the medication, or discuss other options that do not involve medicine but still are healthy. Lewis also notes that gradually, it does not become the mental illness driving the need to medicate. Rather, it becomes the substance that demands continuous use. The second way to combat this is to end the shame. That’s how others see it, and in turn, that’s how we see it too. Addictive thoughts and deeds lead directly to often intense shame, and guess what? Shame is one of the most common byproducts of trauma. Those who do deal with addictions often are self-loathing and subjected to prejudice by society. When we learn to try and see past some of our stigma as to why someone may turn to self-medication, we are, in turn, more able to help.

Finally, I encourage my readers to see a mental health professional if you are dealing with a harmful self-soothing mechanism. While I understand that therapy isn’t cheap and getting

a diagnosis even more expensive, we do have an on-site therapist and a Peer Support group to go to. It is also worth considering contacting an addiction hotline or trying a drug addiction therapy program, if possible. If you want to deal with it on your own, that is ultimately your choice. However, you are only able to help yourself. If you are reading this and have a partner, family member, or friend who is self-medicating, please do not be afraid to talk to them about your concerns. If they refuse your help or suggestions, do not push the issue unless they are in immediate danger of fatally harming themselves or others. Sometimes it is better to nudge than to shove when it comes to people. It is stressful, and it is painful for the parties involved with the afflicted person. But remember three crucial things: firstly, you are not to blame; secondly, you must protect yourself first and foremost, and lastly, you are not in control of other’s actions.

Stay safe, take care.

Did you know you have a student health and dental plan?

mystudentplan



View coverage details at:
www.mystudentplan.ca

mystudentplan

| | |
|-------------------|----------------------|
| Member Name | <input type="text"/> |
| Plan Name | <input type="text"/> |
| Carrier ID | Plan Number |
| Student ID Number | Version Code |



BREAKING THE SILENCE: SELF-MEDICATING

by Nicole Beaver

Following up on the new smoking ban, it's come to my attention that the issue of addiction has yet to be touched upon. It is a problem regarding mental health and has taken many forms aside from smoking. Overeating, gambling, drugs, alcohol, and sex are all things that can quickly become an addiction. But I think that's a general subject that many have shed light on in the past. Most of us have seen anti-drug campaigns, have had lectures delivered in school halls, etc. But it seems that no one has spoken much about self-medication, an unhealthy coping mechanism that leads to addiction. So how do we combat it? How does it even get to such a point?

Let's start with a disclaimer: I am not a licensed mental health practitioner, but I do extensive research and will be quoting often from what actual psychiatrists/psychologists say. So let's begin with its definition. Self-medication is to choose and take medicines oneself rather than by prescription or based on an expert's advice. In some cases, it includes taking addictive or habituating drugs to relieve stress/other conditions. "Medicines" do not only include drugs, but alcohol or food. This is not a method of controlling a problem, but in fact an addiction that may only temporarily alleviate symptoms. It could also lead up to symptoms that are much more severe. Those who struggle with mental health issues are often at risk for this type of addiction. It should be noted, however, that it's not a huge

percentage who actually do this. In fact, many individuals are able to cope through numerous outlets, which include meditation and participating in some kind of healthy self-care regimen. The groups who often participate in self-medication are usually those who haven't been diagnosed or those who have not been diagnosed properly, those in denial, or those who are unable to or don't like the side effects of medications (Dual Diagnosis.org - Why People Self-Medicate). ScienceDaily's article on their study about this issue and its correlation with people who have anxiety disorders also agree; "A total of 34,653 U.S. adults [were surveyed] and participants were separated into three categories: no self-medication, self-medication with alcohol only or self-medication with drugs (with or without the use of alcohol also). [quote continued below]

Of the participants who reported any substance use during the prior year, 12.5 percent reported self-medicating with alcohol and 24.4 percent with other drugs. Additionally, 23.3 of participants with diagnosable substance use disorders at baseline self-medicated with alcohol and 32.7 percent with drugs. Additionally, 12.6 percent of individuals who met criteria for a baseline anxiety disorder and self-medicated with alcohol developed an alcohol use disorder, while 4.7 percent and 1.7 percent of those who did not self medicate developed an alcohol use or drug use disorder, respectively."

So what can one do to combat this? Well, first there is a disclosure; you cannot force someone to take their medication if they are refusing to take it on the account of side effects. Dr. Marc Lewis, in his article for Psychology Today Canada, writes that "iatrogenic (more harm than good) effects don't actually contradict the argument for self-medication. Many medications produce iatrogenic effects—side-effects, dependency, systemic damage, and so forth." If you or a loved one are taking a medication that is causing these iatro-

ness" begins shortly followed by Sam Kiszka's killer bass, and Danny Wagner's precise drumming. An excellent follow up to "Highway Tune," it keeps the energy levels up. Both of the first two songs are also extended to about ten minutes each, and the band jams on seamlessly and comfortably throughout them--another thing that can be compared to the jam bands of the late sixties and seventies (think Grateful Dead). After some banter with each other and the crowd, Greta Van Fleet moves into the warm-sounding love song "Flower Power," (my personal favourite) the organ outro of which should sound familiar to Zeppelin fans.

They follow with another love song, "You're The One," an unreleased tune with the same warm folk feel as "Flower Power." Then they do a blistering cover of Howlin' Wolf's classic blues song "Evil," which is met with thunderous applause and cheers. It is also notable that it's the only cover song in Greta Van Fleet's setlist from the show, all the other songs are original material--not an easy feat from a band that only has two EPs and two singles from their upcoming album out.

After another unreleased and rather dark, mystical-



Jesse Yon Fong

sounding track called "Thunderstomp," the two singles off of the upcoming October 19th album Anthem of the Peaceful Army, "Watching Over" and "When the Curtain Falls" are performed. "Watching Over" is particularly interesting since it's about climate change, and showcases some of the band's most meaningful lyrics yet, which is promising for a new band who's first EP consisted of songs with less sophisticated lyrics about relationships with girls (although the Zeppelin comparison is played out, think the first Zeppelin album and tracks like "You Shook Me" and "I Can't Quit You Baby"). Both new songs are met with a warm welcome from the fans.

For the encore, Greta Van Fleet did two fantastic extended performances of "Black Smoke Rising" and "Safari Song." In fact, the majority of the songs they performed were extended due to the limited amount of material they have released so far.

Overall, the show was absolutely amazing. The Shaw may not be the best-suited venue for a rock band due to the lack of sound quality, but the performance of the band combined with the energy of both the band and the fans made the show a truly fantastic experience. For more quality photographs of the Greta Van Fleet show and other shows and events in the Edmonton area, make sure to check out and follow my friends Nineteen87photography on Instagram!



Jesse Yon Fong

**INSPIRED BY:
HELPING PEOPLE**

Studied Economics

**INSPIRED BY:
SERVING MY COMMUNITY**

Concordia Graduate

**INSPIRED BY:
A CAREER WITH VARIETY**

Studied Software Engineering

You don't need a policing background to become a member of the Edmonton Police Service. Every year we hire people from a wide variety of backgrounds, some of them graduates of Concordia. They all have different educational backgrounds, career paths, and reasons for joining. But the one thing they do have in common is the desire to serve the citizens of Edmonton.

If you're looking for an exciting career full of purpose, variety, and lifelong learning, ask yourself:

WHAT'S YOUR INSPIRATION?

EDMONTON
POLICE
SERVICE

Join **EPS.ca** The Province of Alberta is working in partnership with the Government of Canada to provide employment support programs and service

Canada Alberta

ing the course of action taken. If you have a hazardous waste product, such as toxic heavy metals, you merely dilute it enough to get it under the legal limit, and dispose of it. To go back to the law of conservation of mass, once we've removed a heavy metal from a mine to use it in something like a battery we've concentrated it, and since we can't undo the mining process, at least not economically and easily, we're left with a problem of disposal.

it also serves as a wake-up call. Pollution doesn't respect borders as we do--a practice exploited by governments who placed heavy polluters just upwind of their boundaries, allowing them to boast of their excellent environmental record, and reap the economic benefits of the industries while dumping pollution into neighbouring districts that have little power to oppose the construction of polluting plants. This short-sighted move ignores the fact that pollution does not respect human borders.

For years, this problem was solved the old fashioned way many of us are familiar with and use: "out of sight, out of mind." Much like a mess can be jammed into closets or back seats, leaving us with at least some clean space, we dealt with these plastics and hazardous waste products by sending them far away. Innovations in the global shipping business made it possible to cheaply ship tons of garbage to less developed countries, such as China, where attempts were made to reuse the commercially useful waste, and the rest dumped. Sometimes called "garbage imperialism," this process allowed us to keep our own landscape pristine at the expense of some distant place. However, as countries developed and gained an appreciation for the toxicity of these products, they began to clamp down on this practice. The sudden shift in Strathcona County's policy is a reflection of a long-overdue shift in Chinese policy, with a new ban on the importation of 24 types of waste announced. This ban is an example of the globalization of our world, but

In the end, we're left with only one sustainable course of action, one alluded to in the familiar 3 R's: reduce the quantity of waste generated in the first place. As much as we all like having the newest technology, buying a new iPhone and getting rid of the old one isn't such a good course of action. This doesn't mean we all need to return to the land, living hand to mouth in the wilderness--although if that's what interests you, who am I to condemn it? This is similar to how an occasional donut in a sustainable, good diet won't hurt most people, but a huge donut every day likely isn't the best policy. Small changes, as simple as deriving maximum utility from the items we already own, really make a difference. It's a cliché at this point, but it bears repeating that we only have one planet, and considering we're trapped between the frigid expanse of space on one side and the fiery core on the other, we should strive to make our little slice of habitable space one that lasts.



WASTE: IS IT REALLY GARBAGE?

by Donovan Makus

From Kindergarten onwards, we hear a familiar phrase echoed repeatedly: Reduce, Reuse, Recycle. Stressed from a young age, I think I can safely say there is widespread agreement that this short statement echoes worthy principles. Even from a purely pragmatic perspective, getting recycling deposits back is nice, and who wants to buy unnecessary items, let alone find a place to store them? Expanding outwards, from a more global view, we only have one planet, and it's not in our long-term best interests to neglect or degrade it. Considering this, I was somewhat surprised when I opened my news app and read that Strathcona County, my municipality, would be phasing out soft, plastic recycling pickup, and require that glass be transported to an eco-station. In an era of green politics and environmental responsibility, it seems strange that a municipality would move in the opposite direction. Yet closer examination of the waste disposal industry reveals some deeper issues that lead to this announcement.

For most of us, garbage is something we try to keep out of sight and out of mind. Sequestered in black bins and bags, it can safely rot and decompose out of sight, and ideally, out of smell range. Once a week we, or someone else if we're lucky, hauls out the garbage and leaves it to be taken away, following a pre-set schedule which also allows us to deposit our recycling on the curb every now and again. Most of us try to avoid "The Dump," myself included, but thanks to various jobs over the years, I've completed many trips to dispose of waste that is unsuitable for roadside pickup. Edmonton boasts a world-class dump, and while that's not exactly something to put on the Welcome to Edmonton signs, its ability to sort household and commercial

waste for recycling is noteworthy enough to attract international attention in the waste management business. While some waste will inevitably end up secreted in the landfill, we've come a long way from the days when all waste was simply dumped, covered with soil, and topped off with a golf course placed above it, as is the case for the Mill Woods and Rundle Park golf courses. While the diversion rate, a measure of how much waste is kept out of the landfill, has fallen in recent years due to commercial waste, the majority of garbage is still kept out of the landfill. This is not the part of the waste management chain where the problems arose for Strathcona County. To find the cracks in the global recycling system, you must look further afield to the vast network of companies and countries dealing with that waste after it is long forgotten.

The law of conservation of mass states that in a closed system, matter cannot be destroyed or created, merely changed from one form to another. When we consider that Earth is, practically speaking, a closed system, and we haven't figured out how to dump garbage en-mass in space, we are left with a problem, particularly for hazardous waste. While some of our waste, such as organic waste from food, can be left to rot safely, other pieces of garbage, such as batteries, old electronics, or some types of commercial waste, require additional processing. This past summer, as part of the Environmental Science Field Ecology course (ENSC 318), I was able to visit one of the few hazardous waste disposal dumps in the world: the Swan Hills Treatment Centre. Deliberately located in the middle of nowhere, this facility is the final resting place for all sorts of hazardous waste; everything short of nuclear waste ends up here. During our tour, the operators of the plant were candid with us in regards to the challenges they face, namely ones of indifference and penny-pinching. The facility boasts an impressive incineration capability, as well as deep well storage and the ability to encase hazardous waste inside concrete pods, but all of this comes at a price, one many are unwilling to pay unless it is legally required. "Dilution is not the solution" is a catchphrase in waste management, but practically, it often ends up be-

SHOW TIME!

Here is what is playing in theaters this week:

Jurassic World: Fallen Kingdom
PG

The House With a Clock in its Walls
PG

Hotel Transylvania 3: Summer Vacation
PG

Fahrenheit 11/9
PG

Smallfoot
PG-13

The Spy Who Dumped Me
14 A

A Simple Favor
14 A

Life Itself
14 A

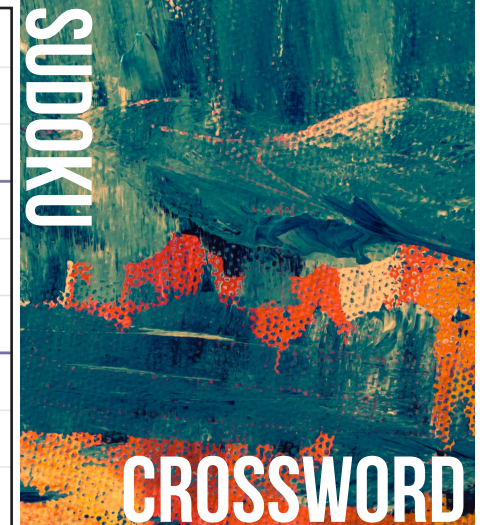
White Boy Rick
14 A

The Nun
14 A

The Predator
18 A

Cinaplex North

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 6 | 5 | 2 | | 9 | 1 | |
| 1 | | | | 6 | | | |
| | 9 | 8 | 1 | 3 | 4 | | |
| 9 | 3 | | | | | | |
| 5 | | 4 | | | 2 | 6 | |
| | | | | | 5 | 9 | |
| | | | 8 | 7 | 1 | 5 | 6 |
| | | | 6 | | | | 3 |
| 6 | 2 | | | 9 | 4 | 1 | |



Across

- 1. Heartfelt
- 5. One-spots
- 9. Dizzy Gillespie's genre
- 14. Shoppe sign word
- 15. Revolver inventor
- 16. Ooze
- 17. Obsolete math aid
- 19. Sought the bull's-eye
- 20. Head of some households
- 22. Japanese immigrant
- 23. Shape of the world
- 24. "The Eagle ___ landed"
- 27. Spy novel figure
- 32. Trusted one
- 35. "Duke of ___"
- 36. Unwieldy
- 37. On the road
- 39. Prepare for prayer
- 42. Bear's advice
- 43. 7:1, e.g.
- 45. Wide-eyed with expectation
- 47. It makes Ma mad?
- 48. Slugger's achievement
- 51. They're spent in the Ginza
- 52. Pipe joint
- 53. Port of old Rome
- 58. Nuclear plant employee of note
- 62. Go at a snail's pace
- 65. Say again
- 66. Studio sign
- 67. Greek diner order
- 68. Fed closing?
- 69. First name in sluggers
- 70. River to the North Sea
- 71. ___ quam videri

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | | | | 15 | | | | 16 | | | | |
| 17 | | | | 18 | | | | 19 | | | | |
| 20 | | | | | | | | 21 | | | | |
| 22 | | | | | | | 23 | | | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | | | | | 31 | | | | |
| 32 | 33 | 34 | | 35 | | | | 36 | | | | |
| 37 | | | 38 | | 39 | | 40 | 41 | | 42 | | |
| 43 | | | 44 | | 45 | | 46 | | | 47 | | |
| 48 | | | | 49 | 50 | | | | | | | |
| 51 | | | 52 | | | | | 53 | 54 | 55 | 56 | 57 |
| 58 | | | | | 59 | 60 | 61 | | | | | |
| 62 | 63 | 64 | | | 65 | | | | | | | |
| 66 | | | | | 67 | | | | 68 | | | |
| 69 | | | | | 70 | | | | | 71 | | |

Down

- 1. "Lou Grant" reporter
- 2. Immigrants' island
- 3. Tennis scores after deuce
- 4. Shelf
- 5. 6,272,640 square inches
- 6. Stunning success
- 7. Jazzy Fitzgerald
- 8. Unsaturated alcohol
- 9. Casual chair
- 10. Noteworthy theater sign
- 11. Word with steer or rap
- 12. Plaintiff for Billie Joe
- 13. ___ Xing (sign)
- 18. Omit in pronunciation
- 21. Before, in poetry
- 24. Shaped with an ax
- 25. Place for a bracelet
- 26. Arrange hair
- 28. Furniture material, sometimes
- 29. Pedestaled vessel
- 30. Make indistinct
- 31. Something to burn
- 32. Where to find favors
- 33. Au courant
- 34. Catholic church language
- 38. Kennel sound
- 40. Psyche section
- 41. Word with down or key
- 44. It's Grand in Nashville
- 46. Pithy saying
- 49. Tree in an O'Neill title
- 50. Ordained group
- 54. Buying binge, e.g.
- 55. Pre-Revolution leaders
- 56. Smidgins
- 57. Bless, old-style
- 58. One who's got it coming
- 59. Actors Alejandro and Fernando
- 60. Father
- 61. Like ___ not
- 62. Stocky horse
- 63. Genetic initials
- 64. Acoustic organ

SPACE NEWS: THE FARTHEST REACHES

by Tyler DeWacht

Hello, and welcome back to Space News! Last time, I covered all news relating to the Sun, the center of our Solar System. In this edition, we're going from the center all the way to the farthest reaches of our tiny area of influence within this vast universe. This is what news we have from the outer reaches of the Solar System.

First off, let's check in on the cosmic race between the objects leaving us, those that have hit escape velocity. Up in front we have the Voyager 1, moving at 62,000 km/h. Following behind in third place is the Voyager 2, moving at nearly 58,000 km/h. Until an even faster competitor enters the race, the Voyager 1 probe will forever hold the number one spot. Despite them being over 48 years old and over 20 billion kilometres away, the two Voyagers still regularly maintain contact with Earth.

However, this won't be the case for much longer; the nuclear batteries that power them are losing energy, and they'll have to start shutting down the scientific instruments of Voyager 1 in 2020 in order to conserve power. Most estimates state it won't survive past 2025. Voyager 2 is facing the same predicament, and it may even fail sooner because it now has trouble picking up radio frequencies. Once they lose all power, they'll be left to fend for themselves in interstellar space. Barring any collision, however, the probes themselves will survive millions of years without decay, and perhaps some alien civilization will someday stumble upon the Golden Records contained within.

Following behind the Voyager probes are the Pioneer 10 and 11 probes in second and fourth place respectively. While the Pioneers did have a 5-year headstart, the perfect timing of the Solar System alignment made

it so that the Voyagers would gain faster speed. Pioneer 11 failed in 1995, while Pioneer lasted until 2003, so we can only guess their current positions. However, it is predicted that the Voyager 2 will overtake Pioneer 10 sometime in April 2019, stealing second place. Like the Voyagers, they also have a message from humans to aliens, this one in the form of a plaque. Despite being the first to launch, they will eventually fall into last place, since they're also moving at the slowest pace.

The newest entry into the race is the New Horizons spacecraft, which recently had a rendezvous with Pluto. Thanks to that, we now have pictures of the dwarf planet as well as its main moon Charon. It also captured images of the smaller Plutonian moons Nix, Hydra, Kerberos, and Styx, albeit not in ideal image quality. Yes, Pluto has five moons, it's not just Charon. New Horizons is currently in fifth place, not surprising given that it was only launched in 2006. It is set to eventually overtake the Pioneer probes, but this won't happen until well within the 22nd century, and it will never overtake the Voyager probes.

So, now that it passed Pluto, where is New Horizons off to next? The next destination for New Horizons will be a small Kuiper Belt object nicknamed Ultima Thule, which refers to a cold and speculative land that is farther north than north itself, a place beyond our known world. Quite appropriate, considering it will be the farthest object we've yet had the opportunity to examine close-up (the Pioneers weren't designed for this task, and we didn't know the Kuiper Belt existed until 1992, when the Voyager probes had already passed through the area).

Once through the Kuiper Belt, what happens next? Well, there appears to be a wall of hydrogen between us and interstellar space, as New Horizons has been indicating. Research is undergoing, but one hypothesis is that the solar winds of our Solar system are blowing up against some interstellar winds, keeping our hydrogen trapped near the edge of the heliopause. As Voyager 1 passed through the area in 2013, it appeared to show similar findings

GRAND OPENING OF THE INDIGENOUS KNOWLEDGE AND RESEARCH CENTRE

by Marina Gendi

It is safe to say that every student at Concordia is excited about the new Centre for Science, but what is more exciting was the grand opening of the Indigenous Knowledge and Research Centre. On September 21st, 2018, the ceremony took place. The service included some fantastic cultural practices, such as a Pipe Ceremony, food, and refreshments. All the Deans from each faculty and many students came to support the opening of this new centre.

The creation of the centre was proposed in the "Indigenous Strategy," which was created by fellow Concordia alumni. One alumnus in particular, Faron Cahoon, was presented with a beautiful Blanket Ceremony, he received a Star Blanket from the Elders Council. In Faron's speech, he relays how his fellow alumni Damon, Louis, and Paul Beach (former Concordia professor) wanted to start a community, to provide an atmosphere to learn about the culture. Cahoon explains that he was walking around the hallways one day when he ran into the President of Concordia and had a conversation, which led to Concordia asking him if he was willing to develop the Indigenous Strategy for them.

The centre is a safe space for students to come together. "A home away from home," as Manager

Danielle Powder says. It is a place where Indigenous students can come to study, eat, and gather while cultural practices surround them. Also, the centre is meant to bridge the gap between Indigenous and non-Indigenous people. Indigenous individuals have excellent knowledge of not only historical practices but even things such as medical expertise. The centre is meant to provide knowledge for everyone, particularly about the community and the cultural practices involved within the community.

The centre is beginning to cultivate a variety of books, including maps, historical documents, and information for research purposes. The goal is to be able to have primary sources on record. For the time being, these books can be utilized during the centre's hours. These books cannot be taken out of the centre yet. The IKRC and Concordia Library are working on hosting a rotating collection of Indigenous works, and once this takes place, the books may be signed out.

There are many other opportunities the centre offers. Many of them can be found on the announcement board. The board includes information on volunteer resources and events that are occurring--for example, the Round Dance that took place on September 22 at the Ralph King Athletic Centre. Another event happening is the free screening of the Indian Horse on September 27 at 4pm and on September 30 at 6pm for the general public in Concordia's Al and Trish Huehen Theatre. Scholarships and awards will also be posted on the announcement board. For example, The Metis Education Foundation announced that it would be giving a \$250,000 endowment that Concordia will match within a 10-year term.

Concordia is paving the pathway for success. The Indigenous Knowledge and Research Centre shows how far the university has come and how much further it can go. I am excited to see what's next.



he wanted to work at BRU was because “I’ve been doing the barista thing for a long time, but I also wanted to do some bartending. This is one of those few locations where I get to do both.” For anyone looking for a new place to study or a new chill coffee or beer spot, I highly recommend you stop by to check it out!

The other local coffee shop I went to was Little Brick, located on 100 avenue and 90 street. When I walked through the door, I was immediately embraced in a homey and comfy atmosphere. Little Brick was established in 1903 in an old brick yard by J.B. Little, hence the name Little Brick. I spoke with the barista, Taylor, who gave a pretty good description of the café: “It’s an all around pretty cool place. I find everyone has a different experience here. I’ve been told by a lady that comes here regularly that it reminds her of a pub back home in Scotland. Last winter we had a chicken stew, she got it with a beer and it reminded her of home. This place has a lot of character to it – just walking in I feel like I’m not really in Edmonton.” I asked her if there was a diversity of costumers and Taylor replied,

“honestly we are all over the place. Mostly locals, a lot of retired folk, since the building beside Little Brick is a 65 plus. Riverdale is a lot of retired folk and young families. Thursdays, we get some elementary kids in here around 3pm getting salted caramels and pop.”

From looking around the coffee shop, we saw a few people just getting off work coming in for a coffee, some friends chatting, and a student reviewing her cue-cards. Rebecca Bradley noted that “it feels like you are on the east coast of the United States here, like in the Providence area” as she sat and drank her London Fog while enjoying the atmosphere and looking out the window into Little Brick’s beautiful yard. Libby Hildebrand commented that Little Brick is “maybe not so much of a study hub but a good place to bring your friend out for brunch and a coffee.”

Now that you know the history of coffee and of some unique local coffee shops, I hope I have encouraged you to partake in the celebration of International Coffee Day!

SHARE YOUR STORY

Visit us in our office: **L279**



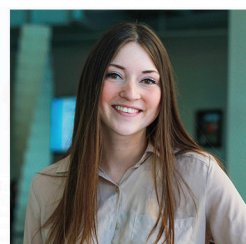
NICK CLARK
Editor-in-Chief

Office Hours:
Tuesday: 10:00-2:00
Thursday: 10:00-2:00



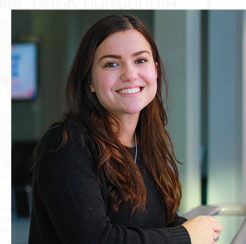
NATASHA MILER
Layout Editor

Office Hours:
Wednesday: 1:00-2:00
Friday: 2:00-3:00



LAUREN HOLLMAN
Online Editor

Office Hours:
Monday: 2:00-3:00



ESTER LATIFI
Story Editor

Office Hours:
Tuesday: 10:00-2:00
Thursday: 10:00-2:00

To get in touch with us outside of these hours, email us at csabolt@student.concordia.ab.ca

with what is being detected today. If it is indeed the case that this wall marks the outer edge of our Solar System, then this means that Voyager 1 is now the first man-made object in interstellar space.

However, there is supposedly one more layer beyond this wall: the Oort Cloud. We have yet to confirm its existence, but the Oort Cloud is said to be a thinly-dispersed collection of comets and stray asteroids that have been held captive by the fringes of the Sun’s gravitational field. Perhaps it also holds the elusive Planet Nine, who knows? Anything out there would receive hardly any sunlight, and temperatures approaching absolute zero would be the standard. With our current technology, it would take sheer luck to find even one object that far out. We can’t wait for our solar escapees to reach it either; even at the Voyager 1’s current rate of speed, it would still take at least 300 years to even get close, and it just doesn’t have that much time left. It’s possible that some Kuiper Belt objects with odd orbits were originally from the Oort Cloud, but we’d have no way to identify which is which unless we know the common properties of both groups. Neither us nor our children or even our grandchildren will make much progress with this area, so we may just have to keep this goal on the sidelines until a future generation finally develops practical means to more closely examine the Oort Cloud.

Does this mean our dreams of exploring other stars is also doomed? Not necessarily. There is a project in development called Breakthrough Starshot which aims to send Starchip spacecraft to the Alpha Centauri star system. It would take less than thirty years to complete the trip, and the spacecraft would be moving close to 20% the speed of light, making the Parker Solar Probe look like an interstellar snail in comparison. How, you may ask? Not with rockets, those are too slow. Instead, it will be propelled by a beam of light aimed at ultra-thin lightsails. With no air or water to push against, this interstellar boat will exponentially increase speed. This extreme speed also comes with a downside: it can’t stop easily. Precise navigation will be very difficult, and the slightest impact would

completely destroy the Starchip. In order to minimize the latter, it will have to be small and streamlined enough to miss most objects. It’s either that or we send as many as we can and hope a few make it. You can see how this would be a problem if we want to use this technology on future manned missions.

Interstellar flight within our lifetimes may seem like an impossible dream, but they also said landing on the moon was impossible. Caltech scientists have been able to engineer a sail out of silicon and silica that can withstand those insane speeds. A laser shoots photons at the sail, and nanotechnology woven within monitors the light coming in contact with it so that the craft doesn’t accidentally overheat. Many people the world over are still working on the problems of such an ambitious project, but there’s still at least 30 years before we’ll be able to put any of these plans into motion, so let’s just see what the future holds.

We may not be able to leave yet, but that doesn’t mean others can’t enter. We have our first confirmed interstellar visitor, except it’s not an alien but a rock. Is it a comet or an asteroid? We don’t know, it’s been acting weird. Oumuamua is a strange cigar-shaped rock hurtling through our Solar System, and we’re trying to learn more about it. The most we know right now is that it couldn’t possibly have come from our Solar System and that it seems to defy conventional standards for matter formation in space. Where did it come from, where will it go? As it leaves at an unexpectedly fast rate, astronomers are still scrambling to find more answers. We may yet be able to catch it with a probe, but we’d need to quickly get something ready, and there are more urgent matters at hand, so it doesn’t seem likely. Until another passes by, we may just be stuck for answers.

That about wraps up the current news from the edges of our Solar System. Next time on Space News, the gas giants Jupiter and Saturn will get their time in the spotlight. As you gaze at the cosmos, consider your future here on Earth and forge your own path forward among the stars.

NOT YOUR AVERAGE JOE: THE GRINDING HISTORY OF COFFEE

by Natasha Eklund

October 1, 2018 is International Coffee Day, and I'm sure as university students, we can all relate to how wonderful caffeine is. It only seems fitting for October to be the month to celebrate this magical energizing bean as the temperature is dropping and everyone's desire to stay inside all cuddled up in a blanket with a warm drink in hand is growing. When I started to research the history of coffee, I did not expect to find enough interesting information to write on, and I was very surprised to find out that coffee has had a controversial background! While coffee is widely accepted nowadays in drinking or snacking form, it was not always beloved-- it was, in fact, despised in a few places as it spread its way throughout the world.

Let's start at the beginning. Coffee was discovered sometime in the 9th century by an Ethiopian goat herder named Kaldi. Kaldi had noticed his goats eating berries from a particular tree and that evening his goats had so much energy they wouldn't go to sleep. Curious about this, Kaldi told an abbot at the local ministry about these berries. This led to the abbot collecting some for himself and making a drink from them. To his amazement, the abbot found himself alert and energized through the long evening prayers. He then spread this news to the other monks and thus the rumors of these magical energizing berries quickly spread. By the 15th century, coffee was being cultivated in Yemen along the Arabian Peninsula. Come the 16th century, coffee had become known in Persia, Egypt, Syria and Turkey.

Coffee had rapidly been spreading across the world and began to replace the common breakfast drink of beer and wine. Those who drank coffee instead of alcohol in the morning found themselves more alert and was amazed that their quality of work had improved. However, not everyone approved of this change of breakfast drink. In 1777, Frederick the Great of Prussia had issued a manifesto against coffee as he claimed that beer was superior to coffee and said the amount of coffee drinking had put a strain on the country's beer consumption. Frederick announced that he had been brought up on beer, therefore, it was to be the superior breakfast drink (National Coffee Association). Mostly, it seems that Frederick had believed coffee should not be enjoyed by the common folk and had wanted their money to be going to Prussia and not being spent on imported coffee. Meanwhile, Frederick enjoyed mass amounts of coffee, but he had it banned for the commoners. Here is a fun fact that may make you grimace - Frederick had enjoyed his coffee served with cinnamon sticks and brewed with champagne instead of water (The Herb Museum). Imagine drinking hot champagne mixed with coffee - to each his own, I suppose!

I got a bit ahead of myself though, so let's go back one century. Travellers had brought coffee to Europe by the 17th century, and here, it quickly became popular. By the mid-17th century, there was a recorded number of 300 coffeehouses located in London (NCA). These coffeehouses were quite similar to the ones we



Natasha Eklund

go to today; customers came to enjoy coffee, listen to music or watch performers, play chess, or discuss the local events and news. Coffeehouses quickly became known as "schools of the wise" (NCA) as they were a key spot to engage in politics, and thus the link between coffee and intelligence was quickly established. Around this time, coffee was also brought into New Amsterdam (New York) and while coffee houses were making rapid appearances, tea was still favoured. However, this took a dramatic turn in 1773 when heavy tax on tea was imposed and American colonists revolted by dumping 342 chests of British tea into the harbor; this, as I'm sure you know, is the Boston Tea Party (www.history.com). Due to this event, the American preference changed from tea to coffee.

Coffee wasn't immediately accepted in Europe when it made its appearance in the 17th century as clergymen had thought coffee to be "Satanic" and put a ban on it. This caused quite a bit of controversy as many had grown to love coffee by this point in time. Pope Clement VII had decided to address this controversy by trying a taste of it for himself and he found the drink to be delicious and even gave it the papal approval. From then on out, coffeehouses rapidly grew throughout Italy.

I saved the most interesting tidbit for last. Murad IV of the Ottoman Empire had banned coffee in 1633. Murad's approach to this ban was much more severe and quite unfortunate for the people who would partake

in drinking coffee. The first time an individual was caught with coffee, they would be beaten. The second time, that individual was sewn into a sack and tossed into the Bosphorus waterway. Coffeehouses in the Ottoman Empire, like all others, were a common place for noblemen, officers, judges, and other people of the law to gather. This made Murad IV nervous as he had grown to fear that as a result, these coffee houses would create "mutinous soldiers" (hitrecord) and they would rally against him. If you ask me, that is quite the extreme reaction to have to a simple caffeinated bean.

In recognition of International Coffee Day, and to support and learn more about Edmonton's local shops, Ester Latifi and I went to check out BRU Coffee & Beer House. This welcoming and tranquil coffee shop is located on Jasper Avenue and 119 street. When we were there, we enjoyed their \$3 pints, delicious sandwiches and veggie trays, and their espresso bar. I decided to ask the barista and bartender, Matthew, a few questions about BRU Coffee. Matthew told me that the BRU Coffee house was established three years ago and is the only one - there are a few other shops with the BRU name, but they are not affiliated with each other. When I asked about the demographic of customers, Matthew responded that there are lots of students, but during the morning and evenings, more business people. All in all, Matthew said that "it's a healthy mixture of people who want to get work done."

Matthew mentioned that BRU always has events going on, whether it's live music, paint nights, or speed dating. I asked Matthew what sets BRU apart from the chain shops and why he wanted to work there, and he laughed as he answered: "the big difference for me is this place has a distinct vibe to it, it's more hip." BRU Coffee & Beer House definitely does have a distinct vibe - it is a very comfortable and inviting atmosphere. As Ester and I sat and enjoyed our visit, we listened to a young man performing acoustic covers and noticed a variety of customers - a few couples on dates, an elderly couple enjoying their coffee and newspaper, students studying, and some friends meeting up. Matthew told me the big reason



Natasha Eklund