

that English majors end up jobless and starving. I want you all to know that this idea is just not true! On that same token, being in Arts does not make you less (or more) intelligent than being in Sciences. One faculty is not superior to the next, as both fields require an enormous amount of effort and attention; they simply focus on different parts of the brain as well as different topics. I hope none of you Arts students ever feel discouraged! Study hard and you will find success.

The last thing, yet possibly one of the most important things, is to get involved as much as you can. We have a campus that is thriving with all sorts of clubs and unions--from clubs that meet and play board games to the Model UN, there truly is something for everyone. It's also important to take a break from a heavy course load every now and then and meet other people in your faculty! There are so many ways you can get involved, and I've found that the student body here at Concordia is extremely welcoming and approachable. In my four years here, I've had the opportunity to expand my writing (and editing) skills here at the Bolt, and last year, I was privileged to be voted in as one of the Arts Representatives for the 2018-19 school year. A misconception I had coming into university was that I'd have no time to fit both school and a social life into my schedule, but I couldn't have been more incorrect. I would go as far as to say that combining a social life with academics here on campus has helped me on an academic as well as social!

As a fourth-year student, I've developed relationships with both faculty members and students alike, and it's truly been a rewarding experience that's helped me throughout my degree. I want to encourage all of you to talk with your professors and go to the office hours they provide; every professor I've talked to has been extremely willing to help! While classes can be stressful and all of us are hyper-aware of our GPAs, I also encourage you all to find some time to get involved

socially as well. Mental health is important, and having friends on campus takes so much pressure off the day-to-day list of things to get done.

For those of you who are new to Concordia and even to those of us who have been here for awhile already, there's so much for us here in the Faculty of Arts, and I hope we all jump on the opportunities that arise and take advantage of what Concordia has to offer! University can be overwhelming, but it doesn't have to stay that way.

P. S. Faculty hoodies for Arts will be on sale on Wednesday from 11-1 in Tegler, so be sure to stop by and order yours!

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# THE BOLT NEWS

## CONCORDIA IS NOW SMOKE-FREE



GET THE DETAILS OF CONCORDIA'S NEW SMOKE-FREE CAMPUS POLICY ON PAGE 1

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**SMASHING PUMPKINS**  
 Kohan Eybergen brings a recap and review of Chicago-based alternative rock band Smashing Pumpkins' Edmonton show from September 9.

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**SPACE NEWS: THE SUN**  
 Tyler DeWacht talks about the sole star in our solar system: our sun, a new mission to learn more about it, and its ability to power our world.

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**EDMONTON: IMMIGRATION**  
 Natasha Eklund looks back at early immigration into the Edmonton area, and what it was like to live here in the early days compared to now.

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**WELCOME TO THE ARTS**  
 Arts Representative, Ester Latifi gives arts students an introduction to Concordia, complete with tips on how to do well and stay organized.

## CONCORDIA'S SMOKE BAN

by Nicole Beaver

This year, Concordia President Tim Loreman enacted the Concordia University of Edmonton Smoking Ban. It is adapted from the Okanagan Charter, which was created in 2015 and then initiated in 2016. The Okanagan Charter's mission is that, "post-secondary schools [embed] health into all aspects of campus culture and lead health promotion action and collaboration locally and globally." By doing so, "health-promoting universities [enhance] the success of our institutions; [they] create campus cultures of compassion, well-being, equity and social justice. improve the health of the people who live, learn, work, play and love on our campuses, and strengthen the ecological, social and economic sustainability of our communities and wider society." Other universities and colleges that have adopted this charter include Mount Royal University, the University of Calgary, the University of Lethbridge, and Kings Western University. A full list of the universities and more details on the charter can be found at <https://healthpromoting-campusessquarespace.com/okanagan-charter>.

While it means well enough, this ban in correlation to the charter is a colloquial double-edged sword. With roughly 5.2 million people smoking either daily or occasionally (Statistics Canada, Smoking - 2016), tobacco and vaping have become a mainstream addiction in our society. In Alberta, an estimated 18.8% (or approximately 559,300) of Albertans smoke tobacco (AlbertaQuits, Tobacco Use Statistics). With the legalization of marijuana only a month away, this becomes a controversial issue that ultimately has no clear answer.



Beneficially, this ban will mean that those with pre-existing lung conditions may have less triggers for their symptoms. The secondhand smoke or vapor emitted can exacerbate the symptoms of those who deal with asthma, according to WebMd's article. "[It may be even more harmful than actually smoking. That's because the smoke that burns off the end of a cigar or cigarette contains more harmful substances (tar, carbon monoxide, nicotine, and others) than the smoke inhaled by the smoker." It also could be a surprising aid to those who want to quit the habit. A U.S. study done by Indiana University compared their smoking ban with nearby Purdue University (where smoking was allowed provided that people were 30 feet away from buildings). They found that, comparatively with Purdue, those who lived with the ban had a marked change in their attitudes about smoking and their smoking habits, while things at Purdue stayed mostly the same. However, it should be noted that the ban wasn't strictly enforced. Dong-Chul Seo, who headed the experiment also noted that their research subjects were volunteers and were largely white Midwesterners, "so caution is warranted in generalization to college students in other regions." There is, of course, a variety of aides and therapy available to those who are addicted who want to quit.

It should be noted that, despite the possibility of less secondhand smoke polluting the air and more

## WELCOME TO THE FACULTY OF ARTS

by Ester Latifi

With the new semester underway and the deadline to add and drop classes officially behind us, we're all beginning to get into the groove of things and figure out a daily routine. Hopefully we've all built our schedules in a way that works in conjunction with commitments such as work and extracurriculars while also leaving us at least a bit of downtime each day to clear our minds!

If you're a new student, welcome! I can say with confidence that Concordia is an excellent environment to be in as far as post-secondary education is concerned. Our small class sizes make it extremely easy to interact with not only fellow classmates, but with professors and other faculty members as well. Coming into my first year, I was so scared that I'd have problems approaching professors for help, but I was pleasantly surprised to find that that was not the case. As an English major, I want to specifically talk about the Faculty of Arts and what it has to offer!

I actually started out as a Biology major when I began classes my first year, but after taking English 100 with Dr. McNamara, I quickly realized I was in the wrong program. I've always loved reading and writing, but I absolutely fell in love with English that year; I loved how engaging Dr. McNamara's class was, how exciting the class discussions always were, and more importantly, how amazing it felt to be exposed to everyone else's points of view on a work of literature and all the different ways one piece of writing could be understood. I'm not writing this to advocate that

everyone switch to an English major, but there is definitely something to be said about how open-minded the Faculty of Arts is and how, even as a science student at the time, I found myself drawn to how inclusive it all felt. My second semester, I took a music history course as well as a class on eastern religion, and by then, I knew that I needed to make the switch. The Faculty of Arts is the biggest faculty at Concordia, and as such, there's so many different topics to explore within it.

For those of you who may not know this, the Faculty of Arts is made up of five departments: Literature and Languages, Social Sciences, History, Fine Arts, Philosophy and Religion. So many fields of study fall under these five departments, and whether you're someone who thrives in the theatre or if you're a history buff, there's something for you! Once you pick your major and minor, there's plenty of room in your degree to take electives, so you aren't restricted to just one or two areas of study. It goes without saying that this makes for an extremely well-rounded education, which I think is important to have. I've taken courses in Psychology, Music, Religion, History, Creative Writing--I even took six credits of German last year--and I still feel like there's a world of information out there for me to explore.

I'm sure we've all had at least one awkward conversation with someone who asks what we're taking in school, and when they find out we're taking a degree in Arts, they immediately assume that we've doomed ourselves to a future of unemployment. I want to assure you right now that, in our generation, any Bachelor's degree--be it in Political Science or Chemistry--will not get you extremely far on its own. Most of us need to take an after-degree or a Masters in order to find a life-long career. With an Arts degree, you can go into law school, become a speech therapist, go into education, work for the government--the list goes on. I know this is something I was initially terrified of, because growing up, I had always heard

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COMMUNITY**

**INSPIRED BY:  
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pressure to quit on the student body, those who do not want to give up their habit are caught in an uncomfortable position. For instance, this ban is also placed as a penalty against those staying in Residence this year. If someone who resides in the dormitories is caught smoking or vaping on campus, they will have their Residence Contract revoked and be forced to leave. It also puts those in Residence and outside of it in the position to go elsewhere to smoke. Their options include the nearby residential area or the River Valley. The River Valley is the largest urban park in Canada, with over 160 km of maintained pathways (Edmonton.ca, River Valley). However, as many who have lived in urban areas know, it is a common area for the homeless and those with substance abuse problems to reside. It is actually not safe to go into the Valley at night as it is mainly unlit. As well, with the days growing shorter, risks of dangerous encounters within the Valley go up. There is also a consequential issue regarding littering; cigarette butts are quite common and quite ugly to behold. The neighboring homeowners will probably not appreciate cigarette butts on their sidewalks or in their lawns, or secondhand smoke near any children living in the area. Our university is, after all, situated right next to an elementary school. This could potentially cause conflict if the number of students whose habit cannot be stifled is more than a dozen. Dr. Loreman reassures that if it becomes an issue, he is willing to work with the city.

It should be noted as well that, while the ban is meant to help those with asthma and other breathing issues, smoke is not the only thing affecting people who have that problem. They will not be safe from those who choose to wear strong-smelling perfume or cologne. It can still trigger symptoms: "Strong perfumes are a common trigger for asthma sufferers, and there are people for whom it is the main source of their sudden attacks." (Painful Perfume, Asthma Centre - Everyday Health). Finally, while the ban may be strict,

some students may still choose to break this ban. No restriction is without those who decide that they are above it or it is unfair. We may still, as a school, smell remnants of vapor, tobacco and marijuana. Just because there is a ban does not mean that the issue of smoking is instantly resolved.

What does the student body have to say about this ban? Approximately 50 students were interviewed regarding whether it was a good idea, a bad idea, or they had a neutral opinion. Out of them, only 6 had a negative opinion on the smoking ban. One such student, who wishes to remain anonymous has stated that "It's stupid! Why should people dictate what we, as grown adults, can choose for ourselves? Like, I get secondhand smoke and [such], but we can go smoke outside!" On the other hand, twenty-three students thought that it was a good idea, one anonymous student stated that they "contracted pneumonia from inhaling secondhand smoke. [I] was ill before, but due to the secondhand smoke from the smoking pit, it got worse." Another anonymous student also added that this ban, with marijuana becoming legal October 17th, would help stop others "not going to class high" and that "those who don't want to smell it won't have to." Yet another student, Lisa, claimed that with this ban, forcing people to stifle their habit would help them, "save money, and for a university student, that's a smart thing to do!" The rest of those interviewed had ultimately neutral opinions on the matter. They did not smoke or no longer smoked, or understood both arguments regarding the ban and could not decide which position to take.

In summary it would appear the smoking ban is held not only in neutral opinion by the general student populace, but also in positive favor. If this ban is to work, apparently we are to see a decline in those with smoking addictions on our campus. In time, we will see if this general consensus continues to hold ground as the school year goes by.





are sometimes pleasant surprises, more often than not, at least in my experience, there is a relationship between studying time and test scores. These are just some examples of how we, knowingly or not, apply the scientific method to our individual lives.

This usage of the scientific method isn't restricted to our own lives; it has revolutionized many fields. Perhaps one of the best examples of this is the modern professional sports business. Movies such as *Moneyball* have shown us how applying scientific principles from the scientific method has revolutionized fields that have previously been largely based on intuition and experience. Gone are the days when coaches coached based off of only their own experience and gut feelings; today's athletes are backed by teams of sophisticated data scientists, keen to discover the answer to the most fundamental question of sports: how do we win? Today's sports media environment is filled with data analysts, often pitted against the "old timers" for the benefit of the cameras. Alas, for all of us who count ourselves as suffering Oilers fans, analytics can only do so much. Sports isn't the only field where we see this spread of the scientific method; one of the oldest pursuits, and arguably one of the most animalistic, is keen to use these new found techniques to their benefit as well: politics. I've had the great fortune to listen to the tales of a retired Member of Parliament talk of parades, barbecues, and community gatherings. Conspicuously absent from all these tales is the modern focus on micro-targeting voters based off of targeted messaging that characterizes modern politics. It's no surprise that data scientists such as Nate Silver, who successfully predicted 99% State election outcomes in the 2008 and 2012 American Presidential Elections, dominate the media coverage. Here too, the scientific method is integrated with the art of the discipline.

Now, this individually applied scientific method is far from perfect, I'm sure we can all remember strange beliefs we held as children based on naive realism. I, for instance, thought that humans couldn't breathe hot air. This observation stemmed from my own difficulty breathing the stuffy air in a sauna, failing to account for the added humidity,

and lead to a false conclusion that warm air is difficult to breathe. We also have issues with our own inherent bias and misconceptions. Moving beyond our own frame of reference, both the fields of politics and sport I used as examples have had notable flops in the usage of the scientific method. *Moneyball* is ultimately the tale of how a first-round playoff losing MLB team added analytics to become a first round playoff losing MLB team, admittedly with an excellent regular season record. The 2016 American election serves as a reminder that models are far from perfect. Yet true science isn't built only on successes, but on failures, namely in learning from them. Models are refined, new approaches developed, and the field improves as a result.

This isn't to suggest that we are all research scientists or experts--far from it--nor that we apply the scientific method correctly. Part of the scientific method is building up a background knowledge that allows you to formulate questions and hypotheses, knowledge that may take years to fully develop in some academic fields. For our more mundane questions, our life experience acts as a background, and while lived experiences are useful, they suffer from the key limitation that they only apply to a sample size of one. This brings us to another limitation: performing useful scientific research requires replicates, controls, and careful data collection and analysis--steps we are unlikely to take in our everyday lives. It is safe to say that we will not be publishing the results of our personal homegrown science anytime in the near future, but this doesn't devalue applying these approaches in our everyday lives.

While our homegrown science may lack the credentials, rigorous experimental design, and other features of formal science, it still forms an important part of our lives. Thinking of the scientific method as something only performed by people in white coats clustered in labs obscures how universal the scientific method has become to our very way of thinking and how it has revolutionized fields far and wide. In today's fast shifting world, it is the ability to apply skills and mental processes, such as the scientific method, to new problems and, thereby, find solutions that enable us to find success.

# WE'RE ALL SCIENTISTS NOW

by Donovan Makus

When you think of science, what do you see in your mind's eye? If you're like most people I asked, you imagine researchers in white coats standing in a lab, working with chemicals and sophisticated instrumentation, or someone hiking 10 kilometers to sample some remote stream. Or perhaps you imagine something more theoretical; perhaps chalkboards filled with complex derivatives and integrals? While I can't see what you saw--that power develops only in a few chosen fourth-year students--it's little mental exercises like this one that help us examine our own preconceived cognitive structures (or schemas, to those who have taken an intro social science course) surrounding topics and objects in our world, and how our own schemas may reflect biases or tunnel vision. The answers I got spoke to a narrow definition--a view of science as something performed only in defined settings, yet the principles of the scientific method have become a key part of life as we know it, from areas as different as sports and politics; even in our everyday lives, activities as mundane as grocery shopping involve the scientific method. We're really all scientists in our own way.

Before looking at how we are all everyday scientists in our own unique ways, it would be useful to look at exactly what constitutes the scientific method. Human beings have been conducting research and experiments for millennia, with early scientists such as Pythagoras and Archimedes making key contributions to the natural sciences that we still use today. However, the modern conception of the scientific method has a more philosophical origin, springing forth from the debates between the empiricists and rationalists of the 17th century, although there were many other notable milestones and debates

in the path to the modern scientific method along the way. To this day, the exact definition of the scientific method is not fixed as the philosophical underpinnings of science are examined, and some modern philosophers and scientists hold that there is no universal "scientific method." Nonetheless, this path leads us to our modern understanding of the scientific method, one grounded in empiricism. It is based upon observing our world, be it through our own senses directly or indirectly through instrumentation, and then forming questions about our observations based on past knowledge and experiences. These questions then allow us to formulate hypotheses, or predictions about why our observations occur, which allows us to test our predictions, enabling a closer examination of our hypotheses and, finally, attempting to derive meaningful conclusions from our results. This is the most common form of the scientific method used today.

Having given one model of the scientific method, the more common hypno-deductive model, we can turn back to how we use the scientific method in our everyday lives. Each day we make many decisions, most of them not passing into conscious thought. However, some of our decisions do require more deliberation, and this is where we have adopted the scientific method. One good example of this, familiar to many students, is caffeine usage and sensitivity. For the 99% of us who consume caffeine on a regular basis, we've been able to build, through experimentation with our own body's response, knowledge of how we respond to caffeine, and how we can use it to help us get through busy days and final exams (as distant as they may seem right now). While we may not formally sit down and draw up an experiment to see what having that second coffee at 6:00 PM will do, we have that spark of wonder, and for the majority who are caffeine sensitive, we learn from the resultant poor night's sleep. Time management is another area where we apply the scientific method, with varying results and degrees of success. We can experiment with the allocation of time for each of our courses versus the other time pressures in our lives. Here, we can form predictions about test outcomes based on how much time we spent studying for the test, and while there

## SHOW TIME!

Here is what is playing in theaters this week:

**The Meg**  
PG

**Searching**  
PG-13

**Hotel Transylvania 3: Summer Vacation**  
PG

**Alpha**  
PG

**Crazy Rich Asians**  
PG-13

**Mission: Impossible-Fallout**  
PG-13

**A Simple Favor**  
14 A

**Peppermint**  
14 A

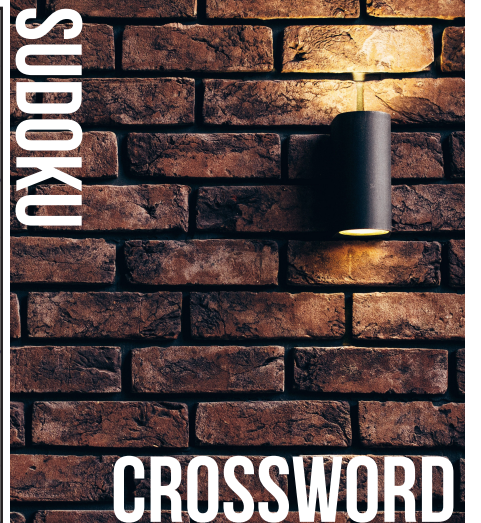
**White Boy Rick**  
14 A

**The Nun**  
14 A

**The Predator**  
18 A

**Cinaplex North**

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|   | 2 | 7 | 6 |   |   |   | 3 |
| 2 | 6 | 1 |   |   |   |   |   |
|   |   |   | 3 |   |   | 6 |   |
|   |   | 8 | 5 | 2 |   |   | 1 |



### Across

- 1. Green pods
- 5. Island in New York harbor
- 10. Title of respect
- 14. Coward of the theater
- 15. Hotelier Helmsley
- 16. Topmost point
- 17. Start of a pun
- 20. Ancient
- 21. Dutch painter Jan
- 22. Lunch has one, dinner has two
- 23. Humorist Ogden
- 25. Request on an invitation
- 27. Siesta
- 30. "--- company, three's a ..."
- 32. Fortuneteller's cards
- 36. Labor's protective agcy.
- 38. "I smell ---"
- 40. Khrushchev's country house
- 41. Middle of the pun
- 44. Bristlelike
- 45. Farm storage structure
- 46. Trueheart of the comics
- 47. French star
- 49. Takes home, as pay
- 51. Pt. of AARP
- 52. Role for Gwen in "Damn Yankees"
- 54. Cars introduced in 1904
- 56. Hasty escape
- 59. Flintstone's better half
- 61. Climbing vine
- 65. End of the pun
- 68. Sunday-meeting link
- 69. Turkish bigwig
- 70. Sacramento arena
- 71. Binary system elements
- 72. Like a newly planted lawn
- 73. Caustic solutions

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| 71 |    |    |    |    |    | 72 |    |    |    | 73 |    |    |    |

### Down

- 1. Appended
- 2. Chancellor Helmut
- 3. Woodwind instrument
- 4. Woody, Fred or Steve
- 5. Santa's helper
- 6. Dangerous places for ships
- 7. Plunderer's take
- 8. Conclude
- 9. Least threatening
- 10. Kettle and Barker
- 11. Word with neck or belly
- 12. Prayer closing
- 13. Jam or pickle
- 18. --- nine, out by five
- 19. Enter forcibly, as a country
- 24. Sailor
- 26. Whitney's jet engine partner
- 27. Serenity spoiler
- 28. Liability's opposite
- 29. It's created in a snap
- 31. 2000 U.S. Open champion Marat
- 33. Earthy pigment
- 34. The ones right here
- 35. "What --- thou, Biondello?" (Shakespeare)
- 37. "...but to no ---"
- 39. Put up with
- 42. Permits
- 43. One way to learn
- 48. Upper crust
- 50. Without accompaniment
- 53. 1836 siege site
- 55. Plant fiber used for twine
- 56. Big name in building block toys
- 57. This company rings a bell
- 58. Distribute
- 60. TV's talking horse
- 62. Out of whack
- 63. French Riviera resort
- 64. Andy's radio sidekick
- 66. Anti votes
- 67. Do one's best

## SMASHING PUMPKINS: A CONCERT REVIEW

by Kohan Eybergen

Music fans born in the 1990s were likely introduced to music at a young age by their parents, cool young aunts and uncles, or equally as cool elder cousins (usually, as in my case, all three). There are many memories that I have of listening to something I'd never heard of before with an older family member when I was young, but possibly one of the most striking was the first time I heard the Smashing Pumpkins' "Cherub Rock" cranked up in my uncle's Tacoma.

Up until that point in my life, I was, as most kids were, exposed to the music that my parents were listening to. Not that that's a bad thing. David Bowie, The Cars, and The Stranglers are all great artists and groups. However, my first time listening to the Pumpkins was one of the first times I was exposed to some really high-energy alternative rock music. And I was hooked. Through various relatives I was introduced to music by other nineties bands: Alice in Chains, TOOL, Pearl Jam, The Breeders, Stone Temple Pilots, Audioslave, etcetera...

Reminiscences aside, I was ecstatic to find out that the Smashing Pumpkins were coming to Edmonton, especially during the current climate of alternative rock music (don't get me started). It was also fantastic that they were playing at the new Rogers Place arena. Surely a band as big as the Pumpkins would sell out the venue; TOOL did a year previously, and they're a bit more of a niche band.

Man, was I wrong. Walking through the doors of Rogers Place, I was extremely underwhelmed by the audience size. I was prepared that the major-

ity of fans would be older millennials and Gen Xers recapturing the feel of nineties nostalgia, but I was not prepared for how few people were there. The entire upper bowl of the arena was closed, the lower bowl was about two thirds full, and there were empty seats scattered throughout the floor area.

What I was not disappointed by, however, was the show itself. No opener was scheduled; the Pumpkins started at 7:30 and played till 11:00. It was an absolute monster of a show length. Three and a half hour show to finish off their forty-show tour! And more importantly, they still absolutely rock!

Billy Corgan opens the show on his own with "Disarm," an easy way to instantly win the crowd by starting with a radio hit. And holy, can Corgan still sing--especially considering he's been singing and screaming for thirty years. They then open the curtains of the stage to reveal the rest of the band as they blast into the riff for "Rocket." I'm already absolutely psyched; they're starting with songs from my favourite, and arguably their best album, and the crowd is feeling the same excitement. Here's the generation that I grew up with as a major influence on my life--the generation that thrived on loud music in weird keys with weird time signatures and shocking surreal lyrics.

The band doesn't take a break before diving into the second track off of the album Gish, "Siva." A dynamic song filled with screeching guitar parts, as well as quiet breaks and monstrous Jimmy Chamberlin drum fills. They follow up "Siva" with track three on Gish, "Rhinoceros," another rocker of a song that starts slow and dreamy, which then builds into a storm of guitars, bass, and drums. Another crowd favourite with its refrain of "she knows, she knows, she knows" being sung back by the crowd.

Although the Smashing Pumpkins may not be as energetic as they once were, their visual art on the stage makes up for it. Projections of trippy kaleidoscope images dance on the screens,

tioned off; all in all, those living in tents did their best to make it the most comfortable life they could.

Eventually, this tent living was brought to an end with the introduction of a by-law in 1907 stating that no individual is to live in a tent or temporary building that has not been inspected and licensed. In order to continue living in it, the tent or building was to pass the standards put in place by the Public Health Act and the owner was required to pay one dollar. Due to this, many of the tents were removed.

While living year round in Edmonton personally sounds like an unpleasant experience no matter how lovely it was depicted in the Journal, a more alarming camp was established in a much less forgiving environment: the Grierson Dump. This area is located north of the river valley just east of the Hotel MacDonald. The camp information I found was approximately 30 years after the tenting community was dispersed, but the dump was a site established as early as 1894 for its convenient disposal of paper and cardboard, scraps of tin, metal and wood, broken glass, and even manure. In 1912, the first petition circulated objecting to the dump as the residents grew worried and complained of the smell, the effect on public health, and the effects this had on property values. Despite this, little action was done to resolve these issues. In 1933, a second case of the typhoid fever occurring within the dump finally brought some attention to their conditions and, upon investigation, it was decided the residents should be relocated. Once again, little was done as the eviction notice did not come until 1938. I came across archival documents of the investigation of the shacks from 1937 where many were reported to be dirty, lacking running water or toilets and no electricity. The majority of individuals living within these shacks were immigrant men whose ages ranged roughly from 40-60 and most were living on a pension or relief pay. It is noted in the investigation report that, similar to the tents, some of these shacks were tidy, large with a couple

of rooms, furnished, and one even had a window. Unlike the tents, the Edmonton Journal did not sugar-coat the conditions of this camp, nor did they encourage it. It had depicted this camp as a "crude and patch-work dwelling" (Edmonton Journal, 1935). It mentioned that the shacks were also made of material scraps such as metal or cardboard. One forgiving aspect of life in the dump was that during the Great Depression, a handful of men were able support themselves by scavenging for scrap metal, mechanical parts, or glass bottles while some others found and refurbished items. Once this camp had been vacated, the homes were destroyed.

Previous to researching this, I was unaware that these camps existed and that this was a common experience in Edmonton. In reality, the appeal was a fresh start to a province still needing to be built and developed so it makes sense that some immigrants lived in conditions such as the tents as so many individuals were coming to Alberta. The tents may have been an exciting and brief experience upon arriving in Alberta, but I do not think the same can be said about the unfortunate conditions of living within a dump. While I am sure there was some favourable aspects and a few fond memories associated with both the tent and dump living, I am personally thankful for the technology, housing quality, and development Edmonton has experienced in these past 100 years!

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## EDMONTON: IMMIGRATION AND LIVING

by Natasha Eklund

As a Canadian, I am proud of our multicultural country. Because of this, I decided to look into immigration into Western Canada, which was quite popular from the late 1800s till the early 1900s. While we may look at Edmonton and dread the brutal and dismal winters, the prairies were seen as a clean slate ready to be moulded into a new way of living. There were many appealing aspects to immigrate to Western Canada, such as new beginnings, escape from oppression or persecution, economic opportunities, an improved quality of life, and adventure for those willing to make the journey. Being that my family had immigrated in 1916 from Sweden to the prairies, I thought that looking into the some of the experiences shared by the Edmontonians would be an interesting topic.

Three aspects I found that encouraged the increased movement of immigrants include the transcontinental railroad established (allowing for more accessible transportation), the 1872 Dominion Land Act offering new settlers free and fertile land and, lastly, in 1873--our beloved North-West Mounted Police were established which offered a safe place to live. The immigration to Canada was quite the dramatic jump of population. In 1870 there were no cities or highly populated areas in the prairies, but by 1911, there were 13 cities established with over 5,000 residents. Indeed, this increase in population took its toll on the quality of living in Edmonton.

Although the prairies had indeed offered a fresh start as many of the immigrants had helped in developing and building themselves a "new west" (Historica Canada), the increasing population did become a strain for Alberta. Boosterism was a common approach used to promote life in Edmonton in the early 1900s. This technique exaggerated the appealing aspects of prairie living, promoting it to foreigners and encouraging them to chose the prairies for their fresh start. An article from the Edmonton Journal printed in July 1907 heavily romanticizes the fact that many residents of Edmonton were, in fact, living in tents. This article was quick to reassure the reader and heavily imply that many of these residents chose to live in a tent rather than a house, exclaiming that the summer Albertan weather "makes the conditions of outdoor life the most pleasant to be found in Western Canada" (Edmonton Journal, 1907). It continues on saying that there is no finer a spot to enjoy the Edmonton evenings that "...among the foliage that grows luxuriantly on every unoccupied space on the outskirts of the city" (Edmonton Journal, 1907). Lastly, the article states that it is the most enjoyable experience to sleep among the trees and be woken from your peaceful sleep by the birds. This article does depict a beautiful, peaceful and appealing living situation; however, as someone who is born and raised in Edmonton, I can confidently say that Edmonton's winter would be unbearable and not nearly as pleasant as this article describes without having proper heat or insulated walls. Upon the publishing of this article, there was a recorded 1,098 tents which housed 3,294 individuals strewn about in Edmonton. The reality of so many people living in tents was due to the lack of housing and expensive rent, leaving the tents as a cheap and affordable way of living limiting their expenses to food. While I question how reliable this article is in depicting the tent life, there are records of individuals having pianos or grandfather clocks in their tents among photographs and pictures of their old homes, and many of the tents had rooms sanc-

and purple, red, and green lights bathe the stage in colour. Not shocking coming from a band whose lead singer dropped acid with Steve Jobs.

There's a quick break in the music and the curtain conceals part of the stage. They begin to start playing some softer, intro-sounding music. Some members of the crowd, many of whom have been smashing multiple (over priced) beers, begin to groan and become antsy in preparation for some of the band's slower (typically less popular) dream pop material. Wrong. The curtains open up again and they begin playing David Bowie's "Space Oddity."

Oh my god, one of my favourite bands is playing music by one of my all time favourite musical artists! And the crowd is appreciating it too! Goosebumps cover my skin while the Pumpkins cover Bowie--and cover Bowie WELL. Very well. It's obvious that Bowie's music influenced the Smashing Pumpkins sound, but it was still unexpected to hear a Bowie cover at a Pumpkins show. The wrap up "Space Oddity" to tons of cheers and applause, and kick into "Drown."

Accompanied by trippy and dark visuals of underwater images, "Drown" is beautiful and flawless. There's another break in the music, and a pre-recorded video of Billy Corgan dressed as a carnie is projected onto the screen. He gives a short speech about the nobodies and downtrodden, and introduces "Zero," one of the many hit songs off of the album Mellon Collie and the Infinite Sadness, and an absolute banger of a heavy alternative rock song. This generates a massive crowd response from the undersized crowd. They then play a few songs from the album Machina, released in the year 2000.

The crowd starts to lose interest with the song "Thirty-Three" from Mellon Collie. Which is a shame, because it really is a beautiful song, and some of the Pumpkins' best songs are slower paced and quiet. They follow with "Eye," a slower electronic tune, much to the dismay of some of the crowd who want to hear loud guitar based songs.

Then "Soma" is played, another slower-tempo song, but a really good one that builds into a loud climax--too slow for some of the crowd who start yelling and throwing cups from the higher seats onto some unfortunate people in the lower seats. Which is really a bummer, but these annoying people were the first to bail on the concert, as well as some of the other more respectable folks who probably had to work in the morning. Their loss.

The band continues on, unperturbed by the streams of people leaving up the stairs. The cover of the Fleetwood Mac song "Landslide" soon makes an appearance, another fan favourite from Pisces Iscariot. Then "Tonight, Tonight," followed by...

"STAIRWAY TO HEAVEN!!!" The Smashing Pumpkins covering Led Zeppelin! And nailing it! Wow... another unexpected twist. Then, one of my personal favourites, the absolute ass-kicker "Cherub Rock." I hope the people who left early in frustration with the quiet songs know that they missed out, and that they feel ashamed for being dicks.

"1979" is played shortly after, and "Today" and "Bullet With Butterfly Wings" towards the very end of the show to much applause. The Pumpkins then follow the typical (and somewhat clichéd) act of leaving for a bit, waiting for the fans to demand an encore, which obviously we did. They close the show with the songs "Solara" accompanied by a wicked drum solo by Jimmy Chamberlain, and "Baby Mine," a cover of Betty Noyes.

Despite the assholes yelling and throwing stuff, the \$45 t-shirt cost, and the underwhelming crowd size, I was certainly not disappointed, and neither were the fans who stuck it out and waited to the end of the exceptionally long show. Although the Pumpkins don't have the stage energy they used to, which is understandable after almost thirty years of rocking out (which mirrors many of their fans), they were still top-notch performers, and this was, overall, an enjoyable show.

## SPACE NEWS: OUR BRILLIANT BALL OF BLAZING GAS

by Tyler DeWacht

Greetings once again! The Sun keeps us all alive, generously providing us with the required light and heat for survival. None of this would've been possible without our resident star, but how much do we truly know about the center of our world? Today in Space News, we're going to look at the brilliant ball of blazing gas that is the Sun!

By the way, this should be obvious, but do not take that statement literally. Unless you have specialized equipment (specialized solar filters or, at bare minimum, a welding mask with a Shade 12-14 rating), do not look directly at the Sun under any circumstances, especially during a solar eclipse. Even a brief glimpse can permanently damage your eyesight. You should be old enough to know this by now, but this point is absolutely crucial, and I am not in any way responsible for any personal injuries you incur as a result of looking directly at the Sun.

With that disclaimer out of the way, let's get back into the news. On the subject of eclipses, when will the next major eclipses hit Edmonton? On October 14, 2023, a total solar eclipse will pass through the Western United States and keep going down into Central Brazil. While we're not in the direct path of this eclipse, we are still pre-

dicted to be in position for a partial solar eclipse with a coverage of at least 50%. If you're willing to wait until August 23, 2044, Alberta will then be directly in the crosshairs of a total solar eclipse. Of course, you'll likely have forgotten about this article long before that day actually arrives, but it's still something to look forward to. If you're more into total lunar eclipses, then you're in for a treat, because then the next predicted one arrives on January 20, 2019, only 4 months from now!

Do you know what Vulcanoids are? Well, neither does anyone else, but we know what they might be. A planet named Vulcan (appropriately named after the Roman god of fire) was once thought to exist between Mercury and the Sun, but that was later disproved by Einstein's theory of general relativity. However, the idea that there may still be asteroids in that area persists as the Vulcanoids. If they do exist, they'd be relatively untouched by space debris, and we could use this to get a better idea of the early Solar System's composition. Given how small they'd have to be and the close proximity to the Sun, they'd be almost impossible to find with what we have in position right now. It's hard enough to see Mercury, we'd have next to no hope of finding a tiny asteroid.

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# What Would YOU BUILD?

However, an ongoing mission will soon give us our best chance yet of finding one. The Helios 2 mission in 1976 got within 43.5 million kilometres of the Sun, but this ambitious mission aims to get as close as 6 million kilometres. What I'm talking about is the Parker Solar Probe. Named after the scientist who coined the term "solar flare," this new probe will use the gravity of Venus to gradually shrink its orbit around the Sun until it hits the target perihelion distance, and this fly-by will be done 7 times. The first Venus fly-by is expected to occur on October 3, about 2½ weeks from now. The main goal of this mission is to examine the outer layers of the Sun, watching the solar winds and tracing the movement of heat and energy. The mission is slated to end after 24 orbits, but NASA will likely attempt to keep it going as long as possible, as they have done with previous missions such as with the Opportunity rover. Eventually, it will most likely fall into the Sun and disintegrate, but it will be dead and fried long before that point.

The Sun is extremely hot, reaching temperatures upwards of 6,000°C inside the photosphere. While the targeted corona region is cooler on average at 1,377°C, solar flares can shoot it straight upwards of 1,000,000°C. With temperatures like that, how

is the Parker Solar Probe supposed to survive? Assuming the extreme scenario of a large solar flare doesn't occur, the equipment inside is protected by an 11.43 cm carbon-composite shield that can hold (at least for a while) even against the melting point of steel. It also helps that it will only be staying in the area for a short time until the orbit takes it out again. At peak speed, it will be moving at over 700,000 km/h, which will make it the most fast-moving spacecraft humanity has ever created.

We have only 1 star in our Solar System, but could there ever have been another in our vicinity? A study led by Suzanne Pfalzner of the Max Planck Institute for Radio Astronomy hypothesizes that a rogue star passed by and messed up the orbits of the objects past Neptune. It could explain why our favorite dwarf planet Pluto has such a tilted orbit in comparison to everything else and why Sedna's orbit is so eccentric. Some computer simulations have also supported this conclusion. It could also be due to the mysterious Planet 9, but that's a matter for another article. Either way, a solid answer won't be easy to find.

Lastly, back here on Earth, a new kind of solar panel was developed in Australia, and it's relatively cheap to produce. All you really need to make them is a special kind of ink, thin plastic sheets, and a conventional printer. It's light, it costs less than \$10 per square meter, and it can be quickly applied. It's still in the trial period, but this new technological development could make it easier for everyone to get an affordable source of sustainable energy.

That's all the current news available regarding the Sun, hopefully giving you a greater sense of enlightenment on the matter. In the next edition of Space News, we go from the center of our survival to the far ends of our little bubble of influence. Keep gazing at the cosmos, but as previously cautioned, do it safely!

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