

THCmania: An Anthropological Exploration of the First Legal Canadian Grow Cup

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Abstract

This thesis is an anthropological exploration of the first legal Canadian Grow Cup (3 years after legalization (October 17, 2018)). It takes a sensory anthropology approach to ‘knowing’ from practical activity. This approach acknowledges that senses/sensing do not belong to one category, instead, “our sensory perception is inextricable from the cultural categories that we use to give meaning to sensory experiences in social and material interactions” (Pink 2015, 7). Taking this approach aims to address the current legal framework that reduces cannabis to its molecular compounds. The methodological approach is centred around an apprenticeship with an experienced home grower, whom I met online and who agreed to guide me throughout my participation in the grow cup. The organization of the thesis follows my movements through the apprenticeship situated both online and in my mentor's garden in West Ottawa, Ontario. Having to abide by winning criteria based on THC and Terpene metrics, this thesis offers arguments and critique of the current conjoint legal/ public health/ industry framework. The latter framework is in line with mainstream pharmacology, which advocates the need to use purified substances as they are considered more specific and safe. However, I critique this approach of 'knowing' cannabis through the cannabis cup as the "effects" and quality of whole derived cannabis products are quantified and standardized based on a percentage number associated with two out of 100+ molecular compounds. This creates a new phenomenon, shaping cultivation practices focused on single molecule percentage numbers. Therefore, I ask how does a skilled home grower know/sense cannabis, and how does the contest criteria constrain (or not) the home grower's ways of knowing/sensing cannabis? Answering these questions aims to understand the sensorial ways of knowing cannabis. As such, this thesis does not deal with standardization or metrics directly. Instead, attention is oriented towards what escapes the contest-winning criteria and standardization, my curiosity resting in ways of ‘knowing’ directly from what is evoked through practical activity.

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March 9, 2021,

The whole world has been under lock down for a year now due to the pandemic. I am laying on my bed, scrolling through social media platforms. I think to myself that this is a good way to “disconnect” from school work, but I know that it is only an excuse to disassociate from my responsibilities. “DING,” new notification: Jack likes your picture. Who is Jack?

L O A D I N G . . .

I click on the profile and the grid feed is filled with cannabis related content. As I scroll through the images and infographics I double tap. Like, Like, Like. I flick my finger upwards on the screen and I am back to the top of the profile. I click on the first image and direct message (DM) a comment: Great post! (the post is about- “The “M” World! Mycorrhizae” - Jacks 2021 Outdoor Grow)

Jack: Thanks! . . . just trying to keep it real and pass on a little bit of the knowledge that I’ve gained to the people! . . . all knowledge is good! . . . Love and Peace!

April 9, 2021

I stop by the neighbourhood cannabis store, while chatting with the sales associates about my day and the deadlines ahead of me, one person asked if I have met Jack who works at the store and grows “crazy beautiful plants.” They tell me to follow him online and look at his content. I pull out my phone and notice that I had previously connected with him a month earlier and that we have been engaging with each others content. I send him a DM: Hey Jack! I have heard some good things about your homegrown cultivation practices. Let me know when you are available for a chat, I would like to learn more.

April 11, 2021

I am laying my head on the table wondering and debating about where I will be conducting fieldwork for my research project. I have options, but I am hesitant to make a decision because things just don't feel right¹.

DING!

New notification: Jack has uploaded a new post. "Jack's Outdoor Grow 34 Street Seed Co. 2021 Grow Cup."

Grow cup? I click on the notification and it takes me to the post where Jack shares that he will be participating in the first legal Canadian grow cup. My eyes widen with excitement because cannabis cups are known to bring together the best cannabis growers to produce award winning cannabis. I took the notification as a sign to a potential entry way to meet home growers and explore how cannabis is cultivated for a grow cup.

Fromseedtobecoming: Hey Jack! Are you free sometime this week? I am interested in learning more about your participation in the grow cup.

April 15, 2021

JACK: Thank you for the "little" chat we had tonight! I'm soooo excited about the project that you outlined to me and I'm looking forward to working with you! . . .
Cheers!

¹ Initially, I was thinking of conducting fieldwork with a Licensed Producer following the lead grower.

‘Background’

Jack is a retired registered nurse and has been working as a budtender (sales associate) in Ottawa since the spring of 2019. He is an experienced ACMPR (Access to Cannabis for Medical Purposes Regulations) licensed home grower. During our first informal phone call, Jack told me that he had dreamed of the day recreational cannabis would be legalized and when the opportunity to work as a budtender presented itself, he did not hesitate and took on the role. I told Jack I was a student interested in learning how cannabis is cultivated for a grow cup competition. I told him that I had experienced and observed online the discontent with the price and quality of legal recreational cannabis. I commented to him that I was curious to understand from the perspective of people who grow it what makes "quality" cannabis. He told me that this was an issue he was familiar with and commented that the problem, in his opinion, is the result of profit being placed first and the plants second. When I asked him to clarify his comment, he told me that the best cannabis, in his opinion, is grown outdoors and organic. This caught my attention as I thought indoor cannabis was la crème de la crème. Jack's position as budtender and ACMPR experienced home grower made him an interesting research participant. So, I intentionally approached him to learn about the grow cup and his participation in it. Jack told me that the grow cup was open to anyone of legal age living in participating provinces. I explained that I was interested in participating for research purposes. I told him I did not have experience growing cannabis and asked if he would be willing to be my mentor. He agreed to be my mentor throughout the cannabis cup, and in return, I would help him take photographs of his plants. I also created a [video](#) documenting the harvesting of Jack's plant for the grow cup.

Introduction

In the spring of 2019, while I was still an undergraduate student, I visited the first legal cannabis store in my city, West Ottawa, Ontario. As someone curious about cannabis, I was excited to see the selection of products from the recreational market. When I entered the cannabis store, the person verifying identification cards handed me a menu. The menu was divided into Sativa, Indica, and Hybrid. At that time, I understood the North American folk plant types Indica (sedative effects) and Sativa (uplifting effects). However, I did not recognize the cultivar (strain) names and became overwhelmed by the selection. I asked the sales associate (budtender) if I could see the dry and cured flowers (buds), and he told me I had to purchase the product first. I was surprised that I could not see the product because I had imagined my first encounter with legal cannabis to be sensorial (see, smell, touch). I then asked what strain they would recommend from experience so I could gauge its potential effects. The budtender told me he could not share his experience with me about the product because it was not permitted. He followed up his response by telling me that he could 'educate' me on THC (which he explained is the psychoactive molecule in cannabis) and CBD (which he explained is the non-psychoactive molecule in cannabis) percentages. I was struck and questioned how it was possible that a plant such as cannabis, easily identified by its pungent odour and psychoactive experiences, could not be discussed in this manner post-legalization?

My curiosity led me to social media platforms, actively exploring human-cannabis collaboration, focusing on knowledge production and circulation among cannabis growers and connoisseurs. My background in anthropology allowed me to notice things which led me to pursue a Master's thesis project. Initially, I wanted to follow an industry master grower to explore how cannabis is cultivated for the recreational market. However, when the grow cup presented itself as an entry point to learning from all kinds of cannabis home growers, I decided to situate myself as an apprentice and participant in this context. My decision to participate in the grow cup allowed me to respect COVID-19 public health restrictions as the grow cup took place online during the pandemic. Furthermore, I wanted to learn how cannabis for a competition is cultivated at

home. Therefore, I decided to grow a plant for the competition and to learn from active engagement with the plant.

As such, this thesis is an anthropological exploration of the first legal Canadian grow cup 3 years after legalization (October 17, 2018). I seek to understand how cannabis is (un)known through its legalization/standardization and ask the following specific question: how does a skilled home grower know/sense cannabis, and how does the contest criteria constrain (or not) the home grower's ways of knowing/sensing cannabis? Answering these questions aims to understand the sensorial ways of knowing cannabis. Therefore, this thesis deals with something other than standardization or metrics directly. Instead, attention is oriented toward what escapes the contest-winning criteria and standardization. The methodological approach is centred around an apprenticeship with Jack, whom I met online and who agreed to guide me throughout my participation in the grow cup. The organization of the thesis follows my movements through the apprenticeship with my mentor and is situated at my mentor's garden in West Ottawa, Ontario. My aim in participating in the grow cup sets out to grasp conceptualizations of cannabis imposed by the current conjoined legal/ public health/industry framework as profiled in the contest criteria. More importantly, my interest rests in ways of 'knowing' which escapes them.

The Problem

The legalization and decriminalization of cannabis in Canada make this research possible as Canada became the first G7 country to tolerate the consumption of cannabis for medical² (2001) and recreational (2018) purposes. The decision to legalize recreational cannabis came from the Federal Government's and Health Canada's public health agreement/approach to protecting the health of Canadians and public safety, in particular to

- (a) protect the health of young persons by restricting their access to cannabis;
- (b) protect young persons and others from inducements to use cannabis;
- (c) provide for the licit production of cannabis to reduce illicit activities in relation to cannabis;
- (d) deter illicit activities in relation to cannabis through appropriate sanctions and enforcement measures;
- (e) reduce the burden on the criminal justice system in relation to cannabis;
- (f) provide access to a quality-controlled supply of cannabis; and
- (g) enhance public awareness of the health risks associated with cannabis use (Cannabis Act 2018. Purpose 7)

As a result, what is currently acceptable from the Federal Government and Health Canada's perspective is that to ensure safety and quality assurance, cannabis companies must disclose quantitative measures that can inform the consumer about the product without explicitly selling them an experience. This public health approach is in line with mainstream pharmacology, which advocates using purified substances as they are considered more specific and safe (Ribeiro 2018, 137). What is interesting about this public health approach is that drug effects are quantified based on a percentage number associated with two out of 100+ molecular compounds found in the cannabis plant. It is then assumed that since THC is associated with psychoactive experiences, the higher the percentage is, the more intense the "effects" will be. This understanding of

² The decision came about the court challenge of R V. Parker (July 31, 2000). Who challenged the federal court of Canada to appeal his plea for his right to life as the consumption of cannabis aided with his epilepsy. Making Canada the first G7 country to legalize the use of medical cannabis through the Marijuana Medical Access Regulations (MMAR 2001), now reviewed and known as Access to Cannabis for Medical Purposes Regulations (ACMPR 2016).

whole-derived cannabis products would be accurate if the dry buds (flowers) were a single-molecule compound, which they are not.

Further, CBD is the other molecule that is quantified and known to not cause a high or addiction; it works in tandem with THC (and the many other molecules), thus balancing the 'entourage effect,' yet they are separated and quantified as if they were independent of each other. These measures were put in place to reduce the risks of accidental consumption and overconsumption and reduce the appeal of cannabis products to young persons while providing consumers with the information. However, while the use of THC/CBD metrics can be helpful, my research and apprenticeship make me critical of this stance as the traditional use of cannabis has centuries and millennia of biocultural experience with the whole plant, while purified compounds only recently started to be investigated (Ribeiro 2018, 137).

In cannabis, fragrance and flavour are affected by terpene composition (Roell 2020, 7). While the focus has been primarily on the bioactive functions of cannabinoids in cannabis, terpenes also offer interesting entourage effects that could ideally synergize or downstream the plants' effects (Sommano et al. 2020, 1). Furthermore, recent research/literature suggest that terpenes play a role in the plant's medicinal efficacy (Koltai, Namdar 2020, 980). Nevertheless, legislation/standardization does not consider terpenes playing a role in the plants' entourage effect. On the other hand, the legal recreational market began to focus on terpenes a year³ after legalization as they had consumer data (which they did not have the first year) that demonstrated interest in terpenes as they contribute many of the different aromatic characteristics that influence the diverse varieties of cannabis cultivars (strains). Therefore, situating myself as a participant and apprentice with my mentor having to abide by winning criteria based on THC and Terpene metrics linked to 'recreational use,' leaving CBD⁴ out of the criteria, offers more arguments for this critique.

³ See [Subramaniam, Vanamla. "A year in the weeds: Why the cannabis industry didn't take off the way everyone planned." Financial Post. October 15, 2019.](#)
And, [Turvill, William. "The legal stuff is garbage': why Canada's cannabis black market keeps thriving." The Guardian. March 18, 2020.](#)
And, [Levinson-King, Robin. "Why Canada's cannabis bubble burst." BBC News. December 29, 2019.](#)

⁴ Linked to 'therapeutic use.'

Even though this thesis offers criticism of the current conjoint legal/ public health/ industry framework of recreational cannabis in Canada, it seems crucial to acknowledge the research and work of scholars, scientists, ethnobotanists, cultivators, and activists before me who have contributed significantly to reversing the criminalization of cannabis. While their contributions have expanded and opened the possibilities of cannabinoid research with significant evidence of single cannabinoid efficacy, whole plant-derived cannabis products continue to be excluded as those products have a complex and undefined pharmacology (Bilbao, Spanagel 2022, 20). Therefore, following an expert home grower/connoisseur with a great depth and wealth of knowledge with and about the plants offers perspectives that fall out of practice once the plant is legalized and commodified. To understand the phenomenon more concretely, one must contextualize how home growers/connoisseurs came to be and how they are (un)shaping cultivation practices post-legalization.

Contextualizing Cannabis and Home Growers in Life and Literature

Cannabis home growers have not received much academic attention, and when they have, they are portrayed as backyard hippies or criminals for their growing practices. This is no surprise given that cannabis remains an illicit drug plant in most of the world today. However, cannabis has not always been an illicit drug plant. Cannabis, in its relationship with humans, has secured its survival through cultivation as it is primarily known to be one of the oldest cultivated fibre, food, medicinal, and sacred plants in the world⁵ (La Barre 1977, 238). Humans have dispersed, cultivated, and involved themselves with prehistoric and historical seed selection favoring specific characteristics/ traits of the plant for human use. As such, the plants' original biological origins are challenging to track. There is current academic debate about whether there are one, two, or three genetic groups of cannabis (*C. Sativa*, *C. Indica*, and *Cannabis Ruderalis*). The most dominant theory suggests that *C. Sativa* is estimated to originate in Central Asia and refers to "plants of Indian heritage, in addition to their descendants carried in a diaspora to Southeast Asia, South- and East Africa, and even the Americas" (Duvall 2019, 8). These plants were mainly bred for fibre and hempseed production, and while their psychoactive content is below 3%, they retain psychoactive chemistry (Duvall 2019, 8).

Historian Chris Duvall (2019) suggests that *C. Sativa* (narrow-leaf drug (NLD) varieties that travel from Central Asia to South- and East Africa were favored through human seed selection for their cannabinoid content. For example, in South Africa, *Dagga* (*cannabis Sativa*) is known to produce higher amounts of the cannabinoid THCV, also known as 'diet-weed,' which is an appetite suppressant. This is a cannabinoid that is most present in landrace strains from Africa. It is 'less intoxicating' than THC as there is a lack of psychoactive effects. Recent studies demonstrate promising benefits of THCV with diabetes regulating blood sugar levels and reducing insulin resistance (Abioye et al. 2020; Wargent et al. 2013). Duvall suggests that the *C. Sativa* variety in South Africa favouring THCV results from prehistoric and historical seed selection (Duvall 2019, 88). He also suggests that this variety of cannabis *Sativa* makes its

⁵ Archeological evidence estimates that humans have used cannabis for at least 10,000 years (Nash 2020).

way across the Atlantic Ocean via labour routes, where it is used as a stimulant to induce and sustain labour (Duvall 2019, 124–156)

C. Indica (broad-leaf drug (BLD)) is estimated to have emerged around the Hindu Kush mountains in highland South Asia (Duvall 2019, 8). 'Indica' refers to Afghani landraces, also known as "Kush" (McPartland 2017, 101). These plants normally mature quite early in northern temperate latitudes from late August through September. C. Indica BLD varieties often stand only one to two meters tall at maturity and produce many large inflorescences, providing an abundant source of highly psychoactive resin traditionally used to make hashish (Clarke, Merlin 2013, 302). Clarke and Merlin argue that C. Indica varieties from Afghanistan and Pakistan were introduced to North America and Europe several dozen times during the middle to late 1970s and also during the 1980s when the Soviets occupied Afghanistan (Clarke, Merlin 2013, 302). According to Clarke and Merlin, the "seedless BLD flowers smell and taste much like high-grade hashish, and connoisseurs were willing to pay premium prices for this exotic product" (Clarke, Merlin 2013, 302). While the introduction of C. Indica (Kush/BLD) in North America is vague. Some scholars suggest that the cultivation of the drug plant in North America did not start until 1834, when slavery was abolished in Britain, after which the British began bringing indentured servants to Jamaica from India (Clark, Merlin 2013, 300; Yawney 1978, 169).

Furthermore, in North America, the landrace varieties of Cannabis Sativa (narrow-leaf hemp), known to contain low levels of THC, arrived with European Colonialists during the 16th and 17th centuries (Clarke, Merlin 2013, 298). These landrace varieties were used primarily as fibre. Clarke and Merlin (2013) argue that these landrace varieties had a low fibre yield, yet they were well suited for seed production, contributing to its dispersal. However, in the 18th - 19th centuries, high-yield resistant hemp varieties arrived in North America with the introduction of Japanese hemp, which has been historically selected for its fibre quality (Clarke, Merlin 2013, 298). At the turn of the 20th century, several other varieties had been imported from Europe and China into North America. As such, the USA Department of Agriculture, which had been experimenting with agricultural crops, soon began to experiment with hemp breeding, which resulted in the development of "giant hemp." This variety of hemp was supposed to replace wood paper-based industries. However, around 1927, "breeding experiments were suspended, and hemp was only grown in quantity as a strategic crop during World War II" (Clark, Merlin 2013, 300).

Clarke and Merlin argue that by the end of the war, paper-based industries and artificial fibres replaced hemp-derived products and suggest that all North American hemp cultivars are extinct today (Clark, Merlin 2013, 300). Nevertheless, the event of World War II sparked cultural awareness among American and Canadian soldiers who encountered the plant on their missions and brought back seeds and practical knowledge of the traditional use of the whole cannabis plant.

In addition, to the cultural awareness of how cannabis is used as food, medicine, and spiritual/sacred crop in various places in the world. Chemist Dr. Raphael Mechoulam successfully isolated THC (the psychoactive cannabinoid), in 1964, from the cannabis plant (Mechoulam 2019). This event occurred when white, educated elites attributed drug use to open-minded experimentation and free-thinking; a prime example is Huxley, that “invented a new name for this class of pharmaceuticals: *psychedelics*, that is, mind-manifesting drugs” (Langlitz 2012, 7). Psychedelics “were meant to open up the brain to dimensions of reality usually hidden from human perception for lack of immediate survival value but beneficial to spiritual life” (Langlitz 2012, 7). Thus, psychedelics “implied a neurology and anthropology in which human beings did not appear as caught up in phantasmal representations of both world and beyond but as spiritual animals endowed with a brain that, under the influence of psychedelic drugs, could connect to a metaphysical truth concealed by everyday neurochemistry” (Langlitz 2012, 7). As such, THC in cannabis plants began to gain popularity in North America for its psychoactive (‘mind-altering’) properties.

While only THC had been identified as a critical psychoactive element in cannabis in the 1960s, research over the last few decades has demonstrated that cannabis chemistry is remarkably complex (Bilbao, Spanagel 2022, 20).

"It is now recognized that cannabis contains over four hundred chemical compounds, sixty-six unique to the plant. The latter are called "cannabinoids" and include four compounds crucial to the plant's psychoactivity: delta-9-tetrahydrocannabinol, delta-8-tetrahydrocannabinol, cannabinol, and cannabidiol. Delta-9-tetrahydrocannabinol is the most prevalent of these compounds and produces the majority of the plant's psychoactive effects. It is thus often referred to simply as THC. As THC ages, it

breaks down into cannabitol, also psychoactive but about ten times less than THC. Cannabidiol (CBD) is the second most prevalent of the active agents, accounting for up to 40 percent of a given plant's psychoactive content. It was originally believed that CBD was not psychoactive. More recent studies have shown conclusively that CBD is an active agent but interacts with THC in complex ways. CBD can simultaneously augment certain effects of THC while diminishing others." (Campos 2012, 30-31).

As a result of the social/cultural cross-contamination of cannabis knowledge that exploded during and after World War II, incipient cannabis-growing cultures began in the United States and Canada. Seeds found in parcels and imported from various places worldwide, notably varieties from Colombia, Thailand, and Vietnam, were sown by curious smokers and gardeners. However, there was no "homegrown" cannabis of any kind, as the *sinsemilla* production had not yet caught on. The varieties of *C. Sativa* brought from Colombia, Thailand, and Vietnam "rarely matured to the floral stage before northern temperate frosts killed them. Alternately, subtropical Mexican and Jamaican narrow-leaf drug landrace varieties occasionally did mature outdoors across the warmer southern two-thirds of the United States" (Clarke, Merlin 2013, 300). As such, early cannabis growers tried any and all available seeds to find plants that would survive and mature before the first frost.

“ Since most imported marijuana was seeded, the seeds of many different varieties were available in large amounts. Early maturing northern Mexican narrow-leaf drug varieties proved to be the most favoured as they most consistently matured in more northern latitudes. The early catering, domestic narrow-leaf drug varieties of the early and mid 1970s (e.g., ‘Pollyanna,’ Eden Gold,’ and Haze) resulted from hybrid crosses between Mexican or Jamaican landrace varieties and more potent but rather later ripening Panamanian, Colombian, and Thai varieties” (Clarke, Merlin 2013, 300).

In the early 1970s, a handful of cannabis cultivators began to grow *sinsemilla*.

“The *sinsemilla* effect is achieved by removing male plants from the fields, leaving only the unfertilized (therefore seedless) female plants to produce mature resin-covered flowers. In lieu of setting seeds in the earliest receptive flowers, as they await

fertilization, the female plants continue to mature, producing thousands of additional floral bracts, each covered by a myriad of resin glands. The technique, was originally developed in India, and although we are unsure of its history prior to the nineteenth century (Prain 1904), the technique may be quite ancient.” (Clarke, Merlin 2013, 300).

There are several pictorial books (most notable, *Sinsemilla Marijuana Flowers* by Jim Richardson and Arik Woods 1976) and magazines (most relevant, *High Times*) from the 1970s, written by medical activist and enthusiast, that revolutionized cannabis cultivation in North America (and Europe), giving birth to ‘underground’ cannabis grow cups and cannabis connoisseurs. The exploration of human-cannabis collaboration, with a focus on knowledge production and circulation among cannabis growers and connoisseurs, enable

“...the first attempt to describe the proper stages of floral maturity for an optimally potent, pleasing-tasting, and resinous product. Most importantly, understanding how to grow sinsemilla allowed many growers to realize that most of the flowers could be cultivated without developing seeds; however, a few branches could be intentionally fertilized with only a tiny amount of select pollen to produce seeds of known parentage.” (Clarke, Merlin 2013, 300-301).

However, due to the plants' prohibition and the USA-led 'War on Drugs,' police awareness prompted several cannabis raids using aircraft throughout North America. Furthermore, incarcerations for possession of cannabis increased. In Canada, the RCMP arrest for possession "increased from approximately 1,500 in 1969 to nearly 65,000 by the end of the following decade" (Fischer 90, 2020). This encouraged cannabis growers and connoisseurs to cultivate cannabis out of sight and 'underground.' Michael Pollan writes that

“The move indoors sparked an intensive period of research and development, including selective breeding for potency, size and early harvest, and a raft of technological advances aimed at speeding photosynthesis by manipulating the growing environment. Gardeners also learned how to clone their best female plants, thereby removing the unpredictability inherent in growing from seed. All these developments coalesced around 1987 in the growing regimen known as the Sea of Green, in which dozens of

tightly packed and genetically identical female plants are grown in tight quarters under carefully regulated artificial conditions” (Pollan 1995).

While there seems to have been an initial interest in high THC, which sparked hybridization and pheno-hunting, Pollan (1995) observes that by the late 1990s, home growers/connoisseurs began to concentrate on other plant qualities, such as taste, variety, and esthetics as such Decort et al. argue that home growers, or what others have called hobbyists or activist growers, differentiate themselves from illicit growers on the basis that cannabis cultivation is for personal consumption rather than financial motivation (Decorte, Potter, Bouchard 2011, 9). According to Bouchard and Nguyen (2011), home growers “are interested in the intangible rewards from cultivation; they are passionate and knowledgeable about the plant, its appearance, taste, and physiological effects. They are not amateurs, but connoisseurs; not professional but aficionados” (Bouchard, Nguyen 2011, 112). Connoisseurship of this order tends to complicate one’s view of cannabis as a drug, especially when one thinks about the sort of weed the “hippies” are remembered for. Therefore, following a grow cup competition offers criticism of the current conjoined legal/ public health/ industry framework that treats whole-derived cannabis products as pharmaceuticals rather than home grown plants.

Cannabis Grow Cups: From Underground to Mainstream

Cannabis cups emerged from Amsterdam in the 1980s as underground meetups where cannabis growers would get together to exchange seeds, clones, and cultivation techniques (Pollan 19 Feb.1995). As the events grew in popularity, growers began competing for the best cannabis plants. The underground meetups gave rise to a culture of cannabis connoisseurship (Pollan 19 Feb.1995). Today there are multiple cups held across the globe each year, all united in the pursuit of growing the 'best' cannabis. Throughout the years each cannabis cup has developed its own criteria that include cultivation practices, smell, taste, appearance, texture, and overall experience of the 'effect' induced by the plants.

However, the cannabis cup I joined and through which I learned with an expert grower only considered high THC and terpene percentages as the contest-winning criteria. Furthermore, the buds were not judged by a guest panel (like other cannabis cups); instead, the samples of the buds were sent to High North Labs to be tested for all cannabinoid content, as Jack's results demonstrate. The competition did not consider the variety of terpenes and other molecules in the test results. Instead, the sample buds were reduced to THC percentage and total terpene content. Nevertheless, the only way to win the competition was by having the highest THC, regardless of whether the terpene percentage was high or low. Thus, I am critical of how the winning criteria of the competition and metrics are used in standardization as they reduce the plant to single molecules.

The Cannabis Cup took place between April 2, 2021 to October 30, 2021. The event was organized by 34 Street Seed Co an ANC Cannabis seed and genetics brand based in Alberta. The contest was open to home growers from Alberta, British Columbia, and Ontario of legal age. Participants had to purchase 34 Street Seed Co seeds to participate, making the competition lawful and fair to growers. The following cultivars were available to compete: Pink Lemonade, Power Kush, Bubba Kush, or Pineapple Express. In order for participants to qualify for the grow cup they had to meet the following requirements:

1. Follow all the sponsors on online social media platforms
2. Fill out consent form before the deadline June 30, 2021 at 4:20 PM MT.

3. Specify which cultivar will be grown
4. Share process via social media with Search Engine Optimization hash tags.
5. Send samples by October 30, 2021 which must be minimum 2g. Contestants are responsible for shipping their entries to 34 Street Seed Co.'s laboratory of choice, High North Labs⁶. ([https:// anccannabis.com/34-street-seed-cup-2021/](https://anccannabis.com/34-street-seed-cup-2021/)).

As part of my preliminary research, before entering the field, I reviewed the Cannabis Act (2018). The legislative framework, which the federal government implemented, sets out to regulate the sale, cultivation, and possession of legal recreational cannabis in Canada. In efforts to reduce the youth from accessing cannabis, under the Cannabis Act, it is prohibited to promote cannabis or a cannabis accessory or any service related to cannabis, including

- (a) by communicating information about its price or distribution;
- (b) by doing so in a manner that there are reasonable grounds to believe could be appealing to young persons;
- (c) by means of a testimonial or endorsement, however displayed or communicated;
- (d) by means of the depiction of a person, character or animal, whether real or fictional; or
- (e) by presenting it or any of its brand elements in a manner that associates it or the brand element with, or evokes a positive or negative emotion about or image of, a

⁶ The top four cultivars from each province won a prize if they met the contest criteria: highest THC percentage.

way of life such as one that includes glamour, recreation, excitement, vitality, risk or daring⁷. (Cannabis Act 2018, 17 (1)).

While I understood the legislative framework of recreational cannabis in Canada before participating in the grow cup, the seriousness of the laws and regulations did not become visible until I started fieldwork. The grow cup took place online due to the pandemic. So, I thought that following the event online would be easy and straightforward. The excitement I started with quickly turned into worry when I noticed that the grow cup organizers were not active online. While they occasionally re-shared posts on their social media platforms, their activity was minimal. This caught me by surprise as I thought there would be more hype/activities relating to the event from the organizers. After all, it was the first legal cannabis cup! On the official social media pages, the company only posted six times about the grow cup and sent out three e-mail reminders throughout the competition. This made me notice how the participants were the ones creating content to communicate through the event using social media. Jack and I, for instance, uploaded posts about our plants (as per the contest requirements) and tagged the company as a way to meet other growers and have exposure.

For the first half of the competition, Jack took his time creating posts and content relating to the cannabis cup to share his knowledge of growing cannabis with other participants. However, most of his posts were not re-shared, which made him feel like he was not being appreciated as a gardener by the grow cup organizers. Eventually, halfway through the flowering stage, Jack

⁷ There are, however, some exceptions where the Subdivision does not apply. This includes

(a) to a literary, dramatic, musical, cinematographic, scientific, educational or artistic work, production or performance that uses or depicts cannabis, a cannabis accessory or a service related to cannabis, or a brand element of any of those things, whatever the mode or form of its expression, if no consideration is given, directly or indirectly, for that use or depiction in the work, production or performance;

(b) to a report, commentary or opinion in respect of cannabis, a cannabis accessory or a service related to cannabis or a brand element of any of those things, if no consideration is given, directly or indirectly, for the reference to the cannabis, cannabis accessory, service or brand element in that report, commentary or opinion;

(c) to a promotion, by a person that is authorized to produce, sell or distribute cannabis, that is directed at any person that is authorized to produce, sell or distribute cannabis, but not, either directly or indirectly, at consumers; or

(d) to a promotion, by a person that sells or distributes cannabis accessories or that provides a service related to cannabis, that is directed at any person that sells or distributes cannabis accessories, at any person that is authorized to produce, sell or distribute cannabis, but not, either directly or indirectly, at consumers. (Cannabis Act 2018, 16).

stopped sharing weekly posts as it was apparent to him that "the cup is something they threw together to promote their seeds." When I asked him to clarify his statement, he told me they would care more about the plants if the event was indeed a grow cup. I reached out to the company in a formal manner three times. However, they did not respond. So, I cannot speak for them. What is clear is that the grow cup was constrained from a legal perspective, as the contest quality criteria and lack of engagement/promotion from the company reflect the current conjoined legal/ public health/ industry framework. The grow cup, as Jack expressed, could be argued to have been a crafty way to market the seeds indirectly via consumers. Yet, whether the grow cup was for marketing (or not), everyone that participated in the grow cup worked within the current legislative framework, thus enabling research to occur. With my interests in learning from the plant and mentor, sensorial approaches in anthropology offer suitable ways forward to understand the phenomenon.

Conceptual Approach

Sensory anthropology, or anthropology of the senses, is an approach/ perspective from which to examine many different anthropological concerns. There are two strands an anthropologist can follow when paying attention to the senses in any society/culture. The first strand is the traditional anthropology of the senses, which took off in the 1990s as a response to visual and text-centric research (Classen 1997, 402-404). Pioneers in this area, concerning the senses, assume that the human body cannot be understood as a universal whole throughout world societies/cultures. For example, sensory studies have argued that the hierarchy of the senses, which dominates in Western societies, is a product of cultural construction that stems from the philosophy of Plato and his student, Aristotle, who privileged sight as (1) "the foundation of philosophy given its ability to convey beauty, thereby acting as a conduit which leads to God and truth" (Low 2012, 271) and (2) sight, as the first out of four others: *visus*, *auditus*, *odoratus*, *gustus*, and *tactus* (sight, hearing, smell, taste, touch) (Low 2012, 272).

Therefore, an anthropology of the senses provides anthropologists with a perspective to study/research a sensory model or sensory symbolism to draw out from a multiplicity of data an overall pattern of sensory meanings and relations (Classen 1997, 410). While the traditional anthropology of the sense has focused on sensory symbolism, the notion of a sensuous approach to anthropological research has always been concerned with the senses as a means of inquiry and not only as an object of study (Howes 2010, 334). As such, the second strand relevant to this thesis is sensory anthropology. For Sarah Pink, sensory anthropology implies a "re-thought- anthropology, informed by theories of sensory perception, rather than a sub-discipline exclusively or empirically about the senses" (Pink 2010, 331). Pink proposes two possible areas of influence for a sensory anthropology approach. The first approach can work "as part of an interdisciplinary scholarship," and the second approach can work "as a leading approach to innovative interdisciplinary ethnography" (Pink 2010, 331). Pink's proposition of sensory anthropology responds to contemporary concerns with sensory experience and practice in anthropological research. Therefore, she proposes the term sensory anthropology, as it broadens the scholarly practice of studying the senses anthropologically.

In her book *Doing Sensory Ethnography* (2015), Pink proposes 'Sensory Knowing' to emphasize that taking "a sensory anthropology approach acknowledges that senses/sensing do not belong to one category, instead, "our sensory perception is inextricable from the cultural categories that we use to give meaning to sensory experiences in social and material interactions" (Pink 2015, 7). However, David Howes, who has contributed significantly to the anthropological literature regarding the senses, critiques this approach as it builds on phenomenological theories of the senses, which he accuses Tim Ingold of using and ignoring the extent to which perception is a cultural construct⁸ (Howes 2010, 335). Howes' criticism of a phenomenological approach stems from his understanding of the senses as only sometimes working together or convert the same message (Howes 2010, 335). However, Ingold's work suggests that separating our sensory modalities, as Howes proposes, "situates them in disembodied 'culture' and is incompatible with an anthropology that understands learning and knowing as situated in embodied practice and movement" (Pink 2010, 332).

For Ingold, perception and action skills emerge within these ontogenetic development processes (Ingold 2011, 314). "It is because these skills differ from being to being, depending on where they stand in relation to others, that they perceive the environment in different ways" (Ingold 2011, 314). As such, learning and doing, for Ingold (and Pink), are as much mental as they are bodily. The approach situates itself within phenomenology as it addresses the "lived experiences of social actors by reflecting upon the embodiment of perception and social existence" (Low 2012, 273). Studies using this approach relevant to this thesis include Laplante's work. In her book *Healing Roots* (2015), she follows an Ingoldian approach to knowing as sensing with relation to plants. In one of her Chapters, she demonstrates how for a Rastafarian family of musicians living in Cape Town, the consumption of dagga in the context of musical creation, facilitates states of consciousness that are linked to Rastafari struggle around livity, as a particular way of being-in-the-world (Laplante 2015, 175-176). More concretely, Rastafarians use the plant to reach a lucid state which is "sought to both transcend everyday life and remedy it" (Laplante 2015, 99). This is done by "entering into a relationship with the world and facilitat-

⁸ For example, Howes Becker's (1951, 1955, 1963) works on Jazz and the consumption of cannabis demonstrate how the senses are conditionally based on various socialization, cultivation, and regulation processes.

ing the ability to account for it" (Laplante 2015, 99). Laplante argues that the awareness of the environment in which the Herb is smoked can allow the perceiver to attenuate, enhance, tailor or ignore the effects of the Herb (Laplante 2015, 175). Therefore, "The medium in which the Herb is taken, where it comes from and in which circumstances will also take part in the experience" (Laplante 2015, 175). Laplante's understanding of how the effects of cannabis are felt in everyday life challenge the confinement of single molecules to parts of the human body as per the current conjoined legal/ public health/ industry framework. These approaches to 'knowing' cannabis are aligned with what I learned through the apprenticeship, as I will demonstrate throughout the thesis.

Therefore, it is helpful to think with Tim Ingold's understanding of 'knowing' as a process of actively following and going along (Ingold 2013, 4). In this approach, knowing/sensing are inseparable as both are as much mental as they are bodily. As such, sensing is not reduced to the sense organs. Instead, sense/sensing is 'knowing' from what is evoked in practical activity, as bodies are already sensors. For Ingold, this 'knowing' happens "by joining with the people and things with whom, and with which, we share our world, allowing knowledge to grow from these joining, these observances, as part and parcel of our own growth as sentient and thoughtful beings" (Ingold 2022, 2). This is the approach to 'knowing' that I take as an apprentice and student to explore what I learned from fieldwork.

Prioritizing this approach involves weaving curiosity with care as it acknowledges that humans learn from the living currents of world formation. As such, intuition is understood as an intelligent sensitivity that can be learned through a prolonged 'education of attention' in which skills of perception and action are fine-tuned— as enskillment allows us, humans, to respond to engagements outside ourselves with judgment, dexterity, and precision" (Ingold 2022, 4). Taking this approach "involves the researchers' empathetic engagement with the practices and places that are important to the people participating in research. And by association it does *not* therefore principally involve the collection of data about them that can later be analyzed. Rather it involves the production of meaning in participation with them through a shared activity in a shared place." (Pink 2011, 271). In this thesis, 'the production of meaning' includes developing a relationship with my mentor, the plants and the use of multiple media.. I can do this in the thesis by taking an

Ingoldian approach to 'knowing,' where learning is transforming through my practical engagement in growing cannabis for a competition. As such, this approach allows an unfolding of human-cannabis relations to take centre stage throughout the thesis.

Methodology

Fieldwork for this project was done in person and online through a field of differentially linked media platforms. Online, I presented myself as @fromseedtobecoming to preserve my privacy. Positioning myself this way allowed me to follow the cannabis cup as a participant and student. I do not engage directly with online fieldwork in this thesis because it is not the main focus. Instead, taking the position of participant observer online/offline allowed me to notice how the internet is an embedded, embodied, everyday phenomenon that is meaningful within a specific context as it has become an extension of other embodied ways of being and acting in the world (Hine 2020; Stalcup 2021). For instance, when Jack shared his experience of engaging online with other growers, I was able to notice/capture the (in)visible cultural aspects the internet shapes in our engagement with the online/offline world in the everyday. For example, the shaming of specific cultivation techniques/tools due to the stigma/sentiment associated with the U.S.-led war on drugs. In addition, engaging with all kinds of home growers participating in the competition online allowed me to notice how percentage numbers are (un)shaping cultivation practices. As such, in-person fieldwork takes centre stage to understand the phenomenon more concretely.

Due to COVID-19 public health restrictions, I decided to try growing cannabis at home for the competition. So, from June 2021 to August 2021, I focused on following the competition online and growing at home. To keep track of my process, I started a diary dedicated to growing cannabis in addition to my online and in-person field notes. The three sets of field notes showed me that I was not simply documenting my observations at a distance. Instead, I expressed my biases, failures, and assumptions regarding cannabis and my research, which facilitated learning with Jack in the garden (as explored in chapter 1).

In addition to writing field notes, I used my smartphone to (1) record/take videos, images, sounds, audio notes and written/typed notes, and (2) instantly reach my mentor and other grow cup competitors in diverse and variable publics on social media and forums. I also explored the camera's various functions in my smartphone to capture the plant in multiple settings. By exploring with the camera on my phone, using the time-lapse function, I witness for the first time plant

sentience⁹. Furthermore, the collage video I made of harvest day was not pre-planned. It emerged from my engagements with my mentor and smartphone as part of a visual project for Planthropo-lab. The video has a title and is a mixture of still images and videos taken on harvest day. My intention with the video is to showcase the process of preparing for harvest day. As such, I added background music to build up to the moment the plants are trimmed, cut, dried, and preserved. When taking photographs and videos in the field, I focused only a little on composition or framing because multimedia was not the main focus of my project. Nevertheless, my encounters with multimedia became crucial to my understanding of human-plant engagements in the field and of the ways Jack knows/senses cannabis.

From August 2021 to December 2021, I visited Jack's garden and home on seven occasions. During my visits, Jack taught me how to attend to the plants within the context of the garden. This provided a more organic opportunity to get to know Jack and attend to how he understood growing cannabis for the competition. In-person engagements allowed me to develop my perceptual skills: visual, olfactory, auditory, gustatory, and tactile as part of a sensorial toolkit (Gibson 2018, 94) to learn from perceptual experience. Furthermore, the smartphone was handy for recording audio notes 'on the spot' and enabled me to capture conversations, thoughts, questions, and concerns. Listening to the recordings in conjunction with my field notes allowed me to reflect carefully on my research question, my relationship with my mentor, and my role as a researcher. Rapport (1991) writes that writing field notes are not simply about note taking but also about taking note (noticing) in the field, which requires the anthropologist to engage in field note writing "not as something which simply abstracts anthropologists from the field and ties them to a self in the academy but as something which simultaneously immerses them deeply in the conventions of a subject community and the self they become there" (Rapport 1991, 11).

The three sets of field notes are rich in content, as they capture a local phenomenon and my research biases, which opened an approach to writing the thesis. Anthropologist Gregory Bateson argues that there are two presentation methods in anthropological writing. The first is

⁹ 'Sentience,' Natasha Myers suggests, is perhaps, "any organism, single cell or otherwise, that can change itself in response to its environment', could be considered sentient" (Myers 47, 2015).

scientific, written at a distance, and includes detailed monumental monographs, for example, the works of Radcliffe-Brown, Malinowski, and the Functional School (Bateson 1958, 1). This method of presentation pays "attention to those aspects of culture which lend themselves most readily to description in analytic terms" (Bateson 1958, 2). The second method of presenting culture takes on artistic techniques. Bateson writes that what differs scientific writing from artistic writing techniques is that

"The artist is content to describe culture in such a manner that many of its premises and the inter-relations of its parts are implicit in his composition. He can leave a great many of the most fundamental aspects of culture to be picked up, not from his actual words, but from his emphasis. He can choose words whose very sound is more significant than their dictionary meaning and he can so group and stress them that the reader almost unconsciously received information which is not explicit in the sentences and which the artist would find it hard- almost impossible- to express in analytic terms" (Bateson 1958, 1).

I have taken a sensorial approach in anthropology to writing which touches both the scientific and the artistic aspects mentioned by Bateson to demonstrate what escapes standardization/legalization and the contest-winning criteria. While taking a sensorial approach to writing in anthropology is nothing novel, the present thesis describes how an expert home grower and student know/sense cannabis in the context of the first legal cannabis grow cup competition in Canada. As such, methodologically, to write and organize the thesis, I have taken inspiration from Gregory Bateson's metalogues in *Steps to an Ecology of Mind* (1972) and Veena Das's book *Life and Words* (2006) as writing styles to express what I learned/witnessed from fieldwork. Each chapter begins with a short description to contextualize and situate the reader. Then, I use metalogues, based on and structured from fieldnotes, audio recordings, and (in)formal interviews, to demonstrate (1) how conversations about the complex subject emerged throughout the apprenticeship and (2) how I was able to learn from active engagement and participation. Finally, I take this methodological/style of writing to include Jack's voice in the thesis as a way to express how I learned from him throughout our time together.

Veena Das, building on the work of Cavell and Wittgenstein, writes that voice and the everyday are not about speech or utterance (Das 2006, 6). Instead, it is that which might animate words; it is a grammar that escapes the theoretical impulse to think of agency in terms of escaping the ordinary (Das 2006, 6-7). Voice and the everyday, Das argues, is not about escaping the ordinary instead, it is a descent into it; it takes the everyday itself as eventful (Das 2006, 7-8). Das's style of writing allows voice and the everyday to fill the pages of her book by giving her research participants a voice in her text. She takes this methodological approach to writing, as she puts it—"not in the manner of a thief who has stolen another's voice, but in the manner of one who pawns herself to the words of the other" (Das 2006, 39). By structuring the thesis using metalogues and narrative structures, I aim to demonstrate what escapes the contest-winning criteria and standardization. My curiosity rests in ways of 'knowing' directly from what is evoked through practical activity. Deciding to write the thesis in this way involved collaboration with Jack as we worked in correspondence with each other, allowing fruitful fieldwork to take centre stage in this thesis.

Thesis Outline

Chapter 1: Failing to learn how to grow cannabis

In chapter one, I discuss how I entered the field with blind spots and preconceived ideas about cannabis which ultimately led me to fail and drop out of the competition. I argue that getting to know the plant, even by failing to grow it, facilitated learning with Jack.

Chapter 2: RESPECT THE PLANT

Chapter two opens in the garden with Jack, where friction about knowing with cannabis sets the tone for the apprenticeship (and our friendship). The chapter is divided into three moments of the apprenticeship training. I open each training session with a creative recreation of what I learn by actively participating. Followed by an 'unpacking' of how I made sense of those experiences. Throughout the chapter, I explore how being "caught" (or enchanted) by the aromas of the plants allowed me to attune my attention to how Jack knows/senses cannabis. I argue that to understand Jack's approach to home growing, I had to let myself both affect and be affected as an engaged participant rather than as a distant observer, which opened up an approach to my study and analysis focused on what Tim Ingold calls 'Knowing from the inside' (Ingold 2013, 1).

Chapter 3: Harvest Day

Chapter three opens up in the garden with Jack on harvest day. One thing that comes up in this chapter and which I discuss is Jack's ability to dispense and brush off the 'official' and 'online' standardization of cannabis. I demonstrate how growing cannabis for the competition was not about achieving the contest winning criteria. Instead, it was about enjoyment, dwelling, and caring for the plants. In this chapter, I discuss Jack's approach to home growing as a kind of 'Science of bricolage.' Attention is drawn to Jack's skills to navigate growing cannabis within as well as beyond the structured sets of legalization/standardization and contest criteria.

Chapter 4: Learning in doing

Chapter four picks up where we left off in chapter one and builds on chapters two and three. I argue that learning by doing is 'knowing'. I demonstrate how Jack's way of knowing/sensing cannabis regrew in me from actively engaging in the garden with Jack. This allowed me to grow and harvest the Pineapple Express (four months after the competition was over). The ability to fail and adjust my attention to growing the plant, despite failing, demonstrates an explicit manifestation of the internalization of the knowledge and skills I developed through the apprenticeship. I support my position using Tim Ingold's anthropological approach of 'knowing from the inside' which acknowledges that the "only way one can really know things- that is, from the very inside of one's being- is through a process of self-discovery" (Ingold 2013, 1).

Chapter 5: Curing Cannabis and Grow Cup Results

Chapter five is divided into three sections and is written as a bricolage with the aim to discuss the sensorial ways of knowing cannabis that escaped the current conjoined legal/ public health/ industry framework as profiled in the contest criteria.

Chapter 6: THCmania

Chapter six starts with an interview I conducted with the cannabis cup winner, followed by an 'unpacking' in which I demonstrate how standardization is shaping cultivation practices focused on single molecules and percentage numbers, all which is ultimately giving rise to a new phenomenon: THCmania, a rush to produce highest THC in legal recreational cannabis.

Chapter 1: Failing to Learn How to Grow Cannabis

I ordered my seeds online from the OCS (Ontario Cannabis Store) and received them at my home on June 16, 2021. Unfortunately, there was a delay in the mail due to the pandemic. So, I was behind compared to Jack, who started his seedlings in early May. I decided to grow the Pineapple Express¹⁰ strain for the grow cup because of the stoner comedy 'Pineapple Express' starring Seth Rogen (who plays the character of Dale, a process server and cannabis connoisseur) and James Franco (who plays the character of Saul, a stereotypical stoner and dope dealer). Saul's sale pitch of the Pineapple Express strain is that it is the "the dopest dope," crossed with "legendary strains." The whole scene leads to the moment where the bag of Pineapple Express¹¹ is opened, and the smell takes away Dale's breath and hooks him on. This scene, and others similar to it, gave shape to my understanding of cannabis through popular culture. So, I romanticized growing Pineapple Express to experience that moment when the smell of the buds would take my breath away.

I decided to grow indoors for the competition as I correlated quality with indoor growing. Jack advised me to grow outdoors as I would not have to worry about the environment and could focus on attending to the plants, but I persisted in growing indoors. I had previously bought a grow tent and LED lights at the beginning of the pandemic as I had attempted to grow but failed. I also bought a fan and humidifier. So, I had the basics to get me started. Jack advised me to use organic commercial soil (PRO-MIX organic) and organic dry fertilizers/amendments to keep the process simple. He warned me not to buy liquid nutrients as it would require a lot of work. He said that, when using liquid fertilizers, you have to make sure that the products are mixed correctly and that the water levels are at the correct PH balance or else the plant cannot absorb the nutrients properly. Liquid nutrients, according to Jack, can build up in the soil, and if they are not "flushed" properly before harvest, it will influence the quality of the final product and can be

¹⁰ The 34 Street Seed Co Pineapple Express is a cross between Pineapple Skunk with Trainwreck.

¹¹ The strain name Pineapple Express was made up for the movie. However, cannabis growers have adapted the name.

dangerous to human health¹². Jack told me that liquid nutrients may be popular because they plump the plants with salts and nutrients, making the buds look bigger and fuller. Furthermore, Jack argued, in one of our phone calls, that quality is not in the final product. Instead, it is in the process of caring for the plants. I took his advice and purchased the recommended products; Gaia Green 4-4-4 all-purpose organic fertilizer and Power Bloom 2-8-4.

On June 16, 2021, I placed the Pineapple Express seed on a damped paper towel, put it inside a ziplock bag, and stored it in the counter above the stove.



Pineapple Express seedling under LED light. June 17, 2021.

¹² "Flushing" is a watering technique used by growers who use liquid nutrients to remove nutrient buildup from the roots and soil before harvest. Essentially, water is run through the soil and roots several times before the plants are harvested.

June 17, 2021, it has been 12 hours since I initiated the germination process. The tap root has cracked through the seed shell! It is so cute, tiny and fragile.

I set up the grow tent in a room on the top floor of my home. I did not invest in a ventilation system because I thought I could control airflow with fans, air conditioner, and occasional fresh air. I also did not invest in an automated light switch at the beginning because I thought I could manually keep up if I set the alarm for myself. This was foolish because plants cannot grow without consistent sunlight/dark hours.



Pineapple Express Under LED light. June 20, 2022.

June 18, 2021, the tap root is about 1 inch long. I will place it in a seedling pot and start it on an 18 light and 6 hours dark light schedule. I will also place the seedlings under the LED lights with a 30-inch gap.

June 21, 2021 Wow! The seedlings are growing so fast! I fear that they will get root bounded. I will repot them into bigger pots this evening.



Pineapple Express seedling. June 21, 2021.

Growing the Pineapple Express for the competition was my first time engaging in the activity of gardening. On June 21, 2021, I made two mistakes that set me back in the competition. The first mistake was overwatering the plants. I focused my attention in spritzing the seedling every day as I thought that “watering the plants” meant spritzing them with water. Instead, what watering the plants actually entails is watering the soil. The second mistake I made was re-potting the seedling too soon, which stressed it out.

July 3, 2021, it has been a week since I repotted the seedlings to the bigger container and they are not showing signs of growth. They are looking droopy.



Pineapple Express after watering. July 3, 2021.

July 10, 2021, Ending week four small. I am not sure what is going on with the seedlings. The lights are 30 inches above the seedlings, and the PH levels of the water are between 5.9-6.1. The humidity has been fluctuating quite a bit, so perhaps that is causing the seedlings stress?

I talked to Jack over the phone this evening and explained what has been going on with the seedlings. He told me that the early repotting of the seedlings must have made them stressed out. He also pointed out that I might be over watering the seedlings as the leaves looked yellow and droopy.

July 11-16, 2021, Yay! This week the seedlings have been growing and growing! The leaves are looking bright green. Jack was right. I was overwatering them by over caring and causing them more harm than good.

July 21, 2021, the seedlings were doing great. However, their length seems to have been stunted again...

Growing up knowing that cannabis was illegal and grown indoors added a mystical element to how I approached growing for the competition. I wanted to produce a final product inspired by High Times magazines. However, by approaching the competition with the idea that quality was made in a controlled environment. I failed to see my insensibility to the vegetal world and as a result I treated the plant as an object. In doing so, I stupidly deprived the plant of a proper light/dark schedule. As a consequence, it's growth stunted. Plants and humans have one thing in common: a circadian rhythm (Chamovitz 2012, 25). It is our internal clock that is reset by sunlight and darkness (Chamovitz 2012, 25). For humans, it regulates our daily lives (Chamovitz 2012, 25). At least, that is how it used to be before the pandemic. When I started my seedlings, Ontario, the province I reside in, was going through its second phase of re-opening. It had been close to a full year of being in quarantine which meant sleeping late and waking up late as home and work were blended under the same roof. So, it was difficult to separate both. I decided not to buy an automated light switch because I thought I could manually turn the lights on and off by setting the alarm for myself. In a way, I took the moment as an opportunity to get 'back on schedule' before things opened up again. The first week was good, as it always is, but

mid-way through the second week, I started to slack off. I would sleep through my alarm and think, “no biggie, just a few minutes/hours.” Well, those few minutes and hours added up, and the plant started to show and express signs of stress. Its height was stunted, and its leaves were droopy and losing colour. I knew the lights, combined with over watering, were causing the plants harm, as Jack pointed out. So, I knew that I was doing something wrong. Therefore, I took action and bought an automated light switch I could control from an app on my phone. I also started to feel the soil to understand if it needed to be watered or not. Moving forward, I thought that all I would have to do was monitor the plant, and I would be successful. I was wrong.



Pineapple Express seedling. July 24, 2021.

July 26, 2021, The seedlings have grown into beautiful cannabis plants. All of the leaves are defined. It's pretty cute. It looks like a little palm tree. A smell is starting to develop, but it's nothing pungent. The consistent light schedule has completely changed the rate of growth. I can't believe I tortured them like that. Jack tells me that cannabis plants outdoors do just fine with six hours of direct sunlight because "no fancy LED light can beat the sun's power."

July 26, 2021, at 8:30 pm. WOW! I took the Pineapple Express out from the tent and placed it in front of the west side window of my home where the sun sets, and I recorded a time-lapse video of the plant moving to the rhythm of the sun! or is it the earth? Plants are fascinating living beings. I kinda feel bad that it is growing in the tent.

July 27, 2021, I recorded a video of the plants inside the tent, which was disastrous. I accidentally hit the humidifier to the maximum and recorded them asphyxiating. I opened the whole tent to help with the airflow and turned the humidifier off. I hope I did not cause them too much harm.

July 29, 2021, the plants are doing great after the incident with the humidifier. . .

I was in awe when I first witnessed the plant move to the rhythms of the sunlight. It was the first time I witness a plant move its whole organic being. Previously, I had seen time-lapse videos of plants growing upwards but not moving to the rhythm of the sun. This experience made me feel connected to the plant as I could sympathize with its movements. However, it was

difficult to see/approach the plants from this perspective. As I wanted to control their growth and I also did not want to fall into anthropomorphizing them.

August 6, 2021, the plants have been doing great! There is lots of new growth. The tent is starting to smell like weed, but it is very subtle. It mostly smells 'nutty and herbal.' Jack advised me to add an extra light as I am growing three plants under the same light, and it would not be enough for them to grow properly. So I set up a Philips Led Plant Grow Light Bulb that I bought at Home Depot beside the Spider Farmer LED light. Let's see if it does anything. I noticed that some of the stems are turning red! It is amazing how plants can change colours!

August 14, 2021, there have been a couple of warm days, and the top floor of the house is warmer than usual this seems to be affecting the plants as they look droopy this evening.

August 19, 2021, it has been a very frustrating week. We have been experiencing a bad heatwave, and the top floor of the home has reached a max temperature of 38 degrees celsius. I took the plants out of the tent and placed them facing the window for maximum sun exposure in my bedroom. I place them back in the tent at night as I cannot keep them anywhere else in the home since my partner has allergies. This evening as I was checking on the plants, I found spider mites! Jack told me to use a mixture of 2:1 water and neem oil mixture and clean each leave with a cloth or 2:1 water with alcohol. I will have to order some neem oil as I don't like the smell of alcohol.

August 21, 2021, I spent about two hours wiping each leaf on the plants with the water and neem mixture. I hope it works.

August 28, 2021, I repotted the plants into their final container this morning. The water and neem mixture seems to be working great. I don't see the spider mites anymore!

September 3, 2021, the plants are doing great! The Pineapple Express is starting to smell citrusy! Unfortunately, one of the headband plants¹³ turned out to be male, so I threw it out. Thinking about it now, I feel bad. I am sure I could have used it for something else...

September 11, 2021, my partner and I got a puppy! He named him Kenzō as it has been his dream dog to own. He is adorable, and I have become attached to him in three days. Last night, while I was outside smoking, Kenzō ran outdoors and got high. I feel horrible. His heart started palpitating¹⁴ and his pupils widened. I tried my best to comfort him by giving him water and food and reassuring him that he would be fine. I never hated myself so much for consuming this plant.

September 19, 2021, we experienced another heatwave, and the spider mites returned... I am getting frustrated with this process! I thought it would be easier...

¹³ I grew two headband plants while growing the pineapple express because I wanted to see the difference between strains (cultivars).

¹⁴ Heart palpitations are a common side effect of cannabis consumption.

September 26, 2021, there are no more visible spider mites! However, the leaves on the plants look yellow, and some of them look like they are burning... Maybe it is lacking in some nutrients? Or perhaps I overused the neem and water solution? I have failed at growing the Pineapple Express for the grow cup. The submission day for the buds is October 30th, and the pistils have not even started to form yet.

October 10, 2021, this week has been fascinating! I spent a few evenings over at Jack's as he wanted to show me how he knows when the plants are ready for harvest. It's so cool looking at the buds and trichomes at night. They look so sparkly!

I can't believe I gave up on my plants two weeks ago. Today, while I was cleaning out the room where I left the plants and tent unattended. I noticed that the Pineapple Express plant that I was going to throw out was still green! These plants are resilient. I spent the afternoon trimming it and replenishing the soil. I am unsure if she will make it out. We will see...

The second headband plant did not show any signs of life. I can't believe I just let them die a slow death. I chose to grow indoors to have more control of the plants, but instead I disregarded their life.



Left is the Pineapple Express and on the right is Headband. September 29, 2021

Unpacking: Failing to Grow Cannabis for the Grow Cup

I withdrew from the competition as I was not going to meet the deadline for submission. In my defeat, I ignored the plants in the tent. I treated them as disposable objects as I thought the competition was over (for me). However, I was not done with the apprenticeship. The week leading to harvest day, I visited Jack's garden a few times to help prepare for "Crotober¹⁵" and to learn from participant observation how to know/sense when the plants are ready for harvest. During this week, I got to know Jack differently as a grower as I was able to observe him in practice. What this experience led me to notice was that caring for the plants did not entail "care" in a "feeling concern" or "attached importance" kind of way. Instead, care entailed serious attention or consideration to doing something correctly or avoiding damage or risk. This became visible when I realized I lacked basic gardening skills and left the plants unattended to die. Yet, getting to know the plant, even by failing to grow it, facilitated learning with Jack.

Not knowing how to properly water a plant and ignoring the importance of sunlight and darkness in a plant's overall life cycle led me to fail. Yet, by committing these horrific mistakes, I was able to learn by doing. That is to say that by taking action and internalizing my mistakes, I was capable of learning because I did not repeat the action. My ideas about quality being correlated to the final product (commodity), technology and gadgets set up the perception filter from which I was looking at the plant and my mentor. I abstracted them from the process. My ideas were checked/confirmed against reality when I failed to grow. Yet, in failing I was able to reflect and realized that growing cannabis was not simply about technology/gadgets. This was when I turned to my mentor, and by attuning my attention to the apprenticeship, I corrected my expectations to match Jack's cultivation practices. By doing this, I could respect the sensorial feedback of engaging with the plants in-the-world, which allowed me to turn around and grow the Pineapple Express. The following chapters take you along this journey.

¹⁵ The name some growers have adapted for when they harvest their crops.

Chapter 2: RESPECT THE PLANT

Meeting Jack in the Garden

It was a little bit awkward when Jack and I met in person for the first time. We talked online and over the phone/video chat for almost four months. Most of our conversations were centred around cannabis. So, when I arrived at his home on the first day, it was the moment to establish a one-to-one connection beyond talking about cannabis. It had been raining all night, and the air smelled musky. I arrived at his home at 9:00 AM. Jack had sent me a text earlier in the morning with instructions to enter his garden upon my arrival as he would be outdoors. At first glance, I could tell Jack was a gardener because his front lawn was filled with various kinds of annual and perennial flowers. As I walked up the driveway to access the backyard gate the floral scents bombarded my nostrils and I sneezed. I pushed the gate doors slowly not to make too much noise. However, the door slammed, and Jack peaked his head out of his backyard porch.

Nina: Good morning! Sorry about the door.

Jack: No worries, come on in! I was getting things ready for us. It is nice to finally meet you in person. Did you find the place without a problem?

Nina: Yes, I am actually not too far from here. We are almost neighbours!

Jack: That's good to know, come on in, let's start with a garden tour. I want to show you how I top my plants today.

Jack wore a black face mask with cannabis leaves on it and seemed excited to meet me. The garden is lively, squirrels are running all over the place and birds are chirping away. On the right side of the garden, a giant tree that is on the side of his neighbours home, is rubbing against the fence creating squeaky noises. Its branches and leaves cover half of Jack's garden and porch. On the left side of the garden is the patio and there are five cannabis plants and one tomato plant, each in its own fabric pot. At the very back of the garden are four cannabis plants. As we are about to make our way through the garden tiny drops of rain start to pour down. Jack tells me to stand under the backyard porch while he gets us chairs. I cannot enter his home because his wife is sleeping. Squirrels are on the porch, they are everywhere! And they are not scared of coming close.

Jack: I have someone in the house who likes to feed the squirrels. They are not shy.

Jack hands me a chair. We sit in an awkward silence looking at the rain fall.

Nina: You have a nice garden, I have never seen cannabis plants tall like yours. I had no idea that they could grow that tall.

Jack: Really? These plants will get much bigger in the coming weeks!

Nina: How tall can they grow?

Jack: Well the Sativa's can grow anywhere between ten to fifteen feet tall. Indica's can grow between five to seven feet tall, but are bushier. And auto flowers can stay relatively smaller, that is why indoor growers prefer growing auto flowers. Did you see the one at the entrance?

Nina: No, I did not.

Jack gets up from his chair and points at an auto flower plant that is growing in a lonely corner near the garden gate.

Nina: It is so tiny that I walked passed it when I came in, why did you place it there?

Jack: I did not place it there, it was probably the wind, a squirrel or bird that took a seed from last years crop and dropped it there. It is almost ready for harvest, I am just not sure why it stayed small.

Jack and I take a small pause and stare at the plant as the rain intensifies. I think to myself that this is my moment to build a human-to-human relation with Jack.



Unknown Auto flower

Nina: Did I ever tell you how I got interested in following the grow cup?

Jack: No you have not...

Nina: In the spring of 2019, when Superette (cannabis store) opened its doors in Ottawa, I was excited to see the kind of product available from the recreational market. When I got there, a security guard was standing behind the person verifying identification cards. I did not know how aggressive the government was on the security aspect of cannabis stores, so I found it quite intimidating. Once I made myself through security, I entered the sales floor, and I was taken away by the dinner aesthetic layout of the store. Have you been there?

Jack: Yes, they have a nice store. It was the first to open in Ottawa.

Nina: Yes! I was super excited to visit and see the product available. I was handed a menu that was divided into Sativa, Indica, and Hybrid. I have to be honest and say that I did not recognize any of the strains that were on the menu. So, when the budtender approached me I asked if I could see the buds, and he told me that I had to purchase the product first. I then asked what strain they would recommend from experience. The bud tender said that he could not make any recommendations because it was not permitted, but they could educate me on THC and CBD percentages. I was struck by their answer and questioned how it was possible that a plant such as cannabis, which is easily identified by its pungent odour and physiological and psychoactive experiences, could not be discussed in this manner post-legalization? Ever since I have been curious to understand how cannabis is (un)known through its legalization/standardization. So, following the grow cup is my way to understand how home growers know cannabis from growing it. I want to understand what makes quality cannabis.

Jack: I am a medical licensed ACMPR grower, and medical cannabis has been legal in Canada since 2001. Let me show you my license¹⁶.

Jack gets up from his seat and runs indoors. The rain continues and a chipmunk approaches me...

¹⁶ Jack showed me his ACMPR license to prove his legitimacy as a legal grower. He made it clear several of times that he supported the legalization of all cannabis.

Jack: Here it is. See I have the right to grow up to 10 plants for my medical needs.

The license is a light yellow paper with Health Canada's stamp and has Jack's personal information, the amount of cannabis he is prescribed to consume and the number of plants he can grow. I hand back the license.

Nina: The plants you are growing are for medical purpose, does that include the one for the competition?

Jack: Yes! Really there is no difference... Well, that is not true. There are differences, but they are based on cultivation practices. Not the plants themselves. It's all weed, really. All the products you get from the recreational market are available to medical patients. That is why the competition was open to both. The difference is that medical patients get the product directly from the Licensed Producer. They also have access to highly sterilized cannabis for people who have autoimmune disorders. You know the people with the whole white suits? That is for medical cannabis, but people don't know that. They think that because cannabis is legal now they can walk into the store and ask for medical advice or to refill their prescription because they see the same products. I always have to cut the conversation short because it is not the space for that. At the store we are there to process orders and answer questions based on the guidelines. The most common thing people want cannabis for is sleep. We cannot use that word in the store because it has medical implications. We can use rest, but not sleep. Some of the big chain cannabis stores have adapted these kinds of terms on their menu to help the customer navigate. However, the most common is THC and CBD. There is a hype right now for highest THC from the younger generations and the License Producers are exploiting that desire. Back in my youth people were consuming low THC. You know Cheech and Chong? And the big joints they are known for? Well, they could smoke all that weed because it was mostly all leaves and THC was not important. Weed back then was to feel a buzz and for enlightenment. Today all that the new generation wants is high THC which gets you stoned and puts you to sleep... or rest. Anyways, I digress. You like high THC right?

Nina: Not really. I actually did not know much about THC and CBD before legalization. My ways of knowing cannabis have been based on popular culture and High Times magazines.

Jack: I love my Sativas! I know, I know, that there is the fuss about Sativa and Indica. But, I like my Sativas, fruity and low THC. That is why I always look at terpene profile to determine how it will make me feel. It's all in the terpenes!

We have been talking for close to two hours and the rain has stopped. Jack is excited to show me how he “tops” his plant and we head to the patio where the Pineapple Express is sitting on the table.

Nina: So, how many times a month do you feed the plants?

Jack stops for a second as if my question was a surprise and takes a moment before answering.

Jack:... I do not feed the plants, I feed the soil. I am not interested in a desired outcome, I want clean, organic, and tasty buds. My methods of growing is focused on living soil which essentially focuses on the microbial life in the soil. This method to growing cannabis gives power to the plants as living organisms, all I have to do is create the best possible soil mixture with everything the plants may need. I do the mixing, and they get to decide what they need.

Nina: Does this mean that “topping” is for the soil?

Jack: Yes! I only do this once a month during vegetation. It is for the fungi, bacteria, and creepy crawlers. They create a soil food web that helps feed the plants in exchange for carbons and sugars that the plant releases through their roots into the soil. So really, my approach is centred on the relationship between the ecosystem in the soil and the environment in which the plants are growing.

Today Jack is adding worm castings and organic fertilizer to the soil. There is hay¹⁷ at the top of the soil, and he has to remove it, or the nutrients will not go to the roots. Jack explained to me that the hay is suppose to help prevent fungal spores from reaching the leaves on the plant. Jack puts on gardening gloves and gently removes the hay. He then adds one handful of worm castings and one cup of nutrients, which he mixes with a little rack. Jack tells me that he will place the plant on the ground before watering because it will become heavy. I help him lift the pot, and we put it on the ground. He is careful in watering and evenly distributes the water around the plant. While he places the hay back on top of the soil, he points out the traps around his smaller plants, so that the squirrels don't ruin them because they like to play in the soil. He also points out the leaves on which the caterpillars have been munching.

¹⁷ According to Jack hay or mulch help retain moisture in the soil and prevents fungal spores from reaching the leaves on the plant.

Making Sense of the First Encounter

Jack and I have about a thirty-year age gap. During my first visit to his home, our age gap created some friction between our approaches to knowing with cannabis. The first moment was when I told him my story about how I became interested in the grow cup. He responded by showing me his ACMPR license as he wanted to show me that he was not involved in any criminal activity. Jack and I are visible people of colour, and we have had our fair share of experiences with the stigma associated with cannabis. These experiences never made it to our conversations because Jack and I agreed that our attention would be focused on positively discussing cannabis throughout our time together. While I may have been biased and naive in certain moments, he also demonstrated bias opinions of me based on my age. For instance, he asked me if I was into high THC. These moments of slight friction allowed us to gauge each other as persons beyond our online personas. So, when I told Jack that I did not know about the THC and CBD hype the way he did, he opened up to the conversation by bringing up that he was into Sativa's which transformed friction into a weaving of knowing/sensing with cannabis. The first encounter set the tone for the friendship/mentorship we build throughout the apprenticeship. Jack's response to my naive questions allowed me reflect about how I had been approaching growing cannabis at home. This was the moment where I turned to Jack to learn from him.

Learning to Affect and to be Affected

In this chapter, I demonstrated how growing cannabis does not entail fancy technology or gadgets (although they can be helpful and practical) but rather an 'education of attention.' Approaching the plant as an object led me to fail and withdraw from the competition as I entered the field with the preconceived idea that the quality of cannabis is made. After all, I had grown up in an era where cannabis was illegal, yet it was all over popular culture. So, I thought that since the plants are known to be grown indoors (due to prohibition), and that is how they are portrayed in magazines such as High Times, then it must mean that the quality of cannabis is in the grower's actions upon 'nature.' But, this was not the case for my mentor. So, in this chapter, I argued how

knowing/sensing cannabis for Jack and I through the apprenticeship entailed an 'education of attention' to relations with the plant in the environment upstream and beyond the contest-winning criteria.

Training Day 1: The Fragrant Cane

I arrived at Jack's home at 10:00 AM. He had sent me a message to enter the garden upon my arrival. I could smell the cannabis plants as I walked up the driveway. As I approached the backyard gate, I noticed some plants peeking above the gate's height. When I pushed through the garden gate I was taken away by the height, smell, and colours of the plants. They looked like pine trees with vibrant green hues.

Jack: Hey Nina! I am back here with the “big ladies.”

When I entered the garden Jack was in the back watering the Blue Dream plants, but I could not see him because the Pineapple Express and Pink Lemonade were covering him.

Jack shouted from the distance: I am watering them with some molasses today. Walk around the garden while I finish up. Feel free to get close to them and take photos!

The blue dream plants had grown about three to four feet taller than my last visit. I could not believe that they had gotten that big. It was the first time I saw cannabis plants like that. I touched the leaves, and they were a little bit sticky. Walking through the garden, sweet and citrusy aromas filled up the air. The “cannabis” smell was present, it smelled “skunky” (or what other have also described as diesel), but it was not choking or overpowering. It was more of the background of the aromas that were both present and fading away as I leaned toward the bud sites and sniffed them. I became enchanted by the aromas and surrendered to their smell.

Jack: Nina, don't be scared to touch them. If you really want to know how they smell rub your fingers on the stem.

I rub the stem of the pineapple express and its citrusy sweet smell enchanted me. It was not an overpowering smell, yet it screamed “I am here and I am present.” It's aroma lingered on my

fingers. I then move to the Pink Lemonade and it smells fruity, third I move to the Error 404 (Pink Lemonade x Super Lemon Haze), but by this time my fingers were getting sticky with residue and the aromas became overwhelming.

Nina: Does this one smell herbal to you? I can't tell, my fingers are sticky and smell fruity.

Jack: Yes, a little bit, but you can't smell now because the smell of the first two plants will linger on your fingers. Let me get you some hand sanitizer.

While Jack went indoors to get the hand sanitizer, I continued to rub the stems of the rest of the plants. As a result I started to get small hives on my palms, so I stopped.

Jack: Here you go, come on to the patio table let's chat for a bit, I am tired now.

Jack sits in front of me and sighs as a sign of tiredness.

Jack: The plant's are starting to require more of my attention now. I have to water them on a daily basis and it is taking me about two hours of my morning.

Jack gets up from his chair and tells me that he will fill up some buckets of water while we chat as he likes to have the water sit over night.

Nina: Why do you let the water sit over night if you use a filter?

Jack: I like to make sure that any left over chlorine evaporates before I water the plants. This step is really for the microbes and bacteria in the soil. The chlorine is not that bad for the plants, you can water them with tap water and they will be fine, but the chlorine in tap water can kill the good bacteria in the soil. So, it is not really for the plants, but more for the bacteria and creepy crawlers.

Jack positions the bucket beneath the water hose and sits back at the table.

Jack: The good thing about this stage of flowering is that I do not have to top the soil anymore. They are going to start getting very needy now as they want to be pollinated. So, all I have to do now is treat the bacteria and fungi to molasses. In the next few weeks you will see how they will change in colour. The leaves will turn yellow because the plants will focus most of their energy on the flowers. It is their sex organ, so they want you to know they are ready. They have a life cycle. My wife says I fuss too much about them. I don't think I do, they just require a lot of my attention. I don't mind it, but they do make me tired. Next year I will only be growing two plants outdoors in 50 gallon fabric pots to give the roots, bacteria, and fungi more space. I want to see what I can do with only two plants. So, this winter I will be growing indoors to try a few things. Once I am done the indoor set up I will show you.

Jack lays his back on the chair and tells me that he is just happy (with a sigh) that growing is almost done and that he cannot wait to harvest. We take a second to pause and observe the plants. The aromas remind me that Jack has recently won an award as "terp master" from the budtender association and I congratulate him on his achievement.

Jack: Oh thank you, but "terp master" is whatever it may mean.

Nina: what do you mean?

Jack: It was my co-workers that nominated me for the award. You know I like to talk about terpenes, but this award is whatever "terp master" means.

Pressing Jack about what he meant about his award meaning "whatever" opened a long conversation about how he knows/senses cannabis.

Jack: At the store I like to look at the terpene profile of the strains as I am able to identify what combinations I like. For instance, I like to look for limonene because I know it will have an up-

lifting effect. I am looking for a “buzz” not to get “stoned.” So, a low THC percentage is what I look for if the terpenes are not available. For me it’s all really in the terpenes. Once you identify a few terpenes that sit well then you can start exploring. But, not everyone is like that. I am lucky if I get to talk about terpenes at work. Customers come in looking for high THC or CBD, they don't care to talk about terpenes. They don't know, that is why “terp master” is whatever it is. Customers my age know what they like because they come in with their list on their phone or on paper. It makes my job easier because I can tell them about similar products in terms of THC/ CBD percentages and terpene profile. Legally, I cannot give recommendations to customers, but I try my best to inform them that THC and CBD is not everything. Or else sometimes they come back complaining about the effects, but we cannot do anything about it, legally. So, it get's complicated right? Perhaps your research can help in a way...

Another thing is that at the store the younger budtenders make the job seem like something else when it is really a retail position. We are there to process orders, not make recommendations, but some of them don't see it that way because they think weed is legal. I have to intervene often simply because they do not know how to listen to the customer and right away and take them to highest THC. I understand their logic because that is what we are taught, but that high THC is not the only thing people are looking for. Sorry, for my little rant, I digress... It is frustrating because THC does not equate to tasty or good cannabis. It is all really about the plants’ overall health, but the customer doesn’t see that. They only see the final packaged product. Let me show you something.

Jack jumps up from his seat and runs indoors. He walks outdoors with a few containers of legal cannabis.

Jack: This is my current favourite strain.

Jack hands me a container of legal cannabis he got from work.

Jack: It is watermelon ZKTLZ by Tenzo. Open it up and tell me what you think.

I open the container and a pungent smell of ripped blueberries with hints of pine and diesel are released in the air. The bud is visually pleasing, its trichomes are still intact, the pistils are light orange, and the flower itself is green with some purple.

Nina: WOW! this smells soo good!

Jack: Would you purchase this product?

Nina: Absolutely! But it is hard to tell what you will get since we cannot smell or see the buds before purchasing.

Jack: I know...and you know what?

Nina: what?

Jack: It is not selling at the store because it is at 14% THC. People don't even bother to consider buds lower than 25%. Isn't it crazy? Tweed which has the highest THC strain sells like pancakes, but taste horrible! And all the buds are "popcorn¹⁸." Who wants that? I know I am a cannabis snob... That is why I only buy from craft micro-producers. Yea, it is a little bit more pricey, but it's like a fine wine. Quality is not only the final product, but in the process, and I know that micro-cultivators give the plants a different type of attention and it shows. The newer craft products coming out of the recreational market are better than what you would get from the legacy market, some argue against my opinion about this online, but it is a matter of knowing and asking questions. It's just tough with standardization. We have great product, but because the THC per-

¹⁸ This refers to small cure buds detached from the stem rather than whole cured buds attached to the stem.

centages range from 10-19 % they are just sitting on the shelf and that is why the market, managers and store owners would rather stock up on high THC products¹⁹.

Nina: Have you notice the same thing for edibles?

Jack: Currently edibles are limited to 10 mg in Canada. So, people who buy them are good with the limit. You get those who want more, but edibles are easier for people to use. There is less stigma with eating than smoking.

Nina: Do you think the government would ever change the regulations?

Jack: The government has no interest or need to change the laws and regulations. It is more of an industry thing. The industry wants the regulations to change that way they can market their products beyond THC and CBD.

It is close to noon and Jack tells me that it is enough ranting for today. He get's up, turns off the water tap, and tells me that he wants us to take a closer look at the plants.

Jack: The strong winds have damaged some branches. This is the annoying part about growing outdoors, you do not control the weather. Did you see the plants in the middle?

Nina: Not yet...

Jack: Let's try to smell them again. Rub your hand on the stem and tell me what you smell.

We are standing in front of the Blue Dream plants. I lean close to the plants and I have to move the branches to access the main stem.

¹⁹ In another conversation, months after, during a craft cannabis industry event that I attended in the fall of 2021. Connoisseurs and other industry experts expressed frustration with cannabis labelling starting with the fact that none of the dry flower products have an expiring day. This is because "no one" (including Health Canada and the Federal Government) knows how long cannabis is good after it has been cured and packaged. This phenomenon, on its own, requires further exploration beyond this thesis. Yet, what came out of this conversation was the frustration (from connoisseurs/bud tenders/industry craft growers) about the refusal of low THC products because they are not selling compared to high THC products. One person asked how it was possible that the province (Ontario) is okay with stores selling one-year-old cannabis but refuses to allow micro-cultivator to sell their product because they do not meet the high THC demand from the "consumer."

Nina: WOW! look at the size of the stem, it is much thicker than the other plants in the fabric pots.

Jack: Yea, there is nothing like letting them grow directly in the earth. What do you smell?

Nina: It smells very fruity!

Jack: what kind of fruity?

Nina: It's sweet fruity... the more I concentrate, I definitely get hints of berries. It's like a very berry drink!

Jack: Now let's go to the Headband, what do you smell?

Nina: It smells herbal, with light hints of citrus and like nutty.... I don't know how to explain it.

Jack: Good, this is learning. As you visit in the next few weeks you will experience the differences.

Jack notices that one of the lower branches of one of the Blue Dream plants is looking bad. He stops talking to me and starts inspecting the whole branch. He moves the branch up and down, side to side, and scratches at the soil.

Jack: This is not good. Do you see the leaves turning inwards? The buds are looking yellowish brown...

Jack kneels, checks the soil again, moves the branch around roughly, and rushes to get a big stem cutter in the shed, and before I can say anything he cuts the whole branch off.

Nina: That is a big branch and you just cut it off!

Jack: Yes! because at this stage the plant will bounce back in no time. I also don't want it to waste it's energy on that branch.

Nina: Why did you cut it off? What was wrong with it?

Jack: I don't know what is wrong with it specifically, but it looks really bad. The rest of the plant looks beautiful. Sometimes it is better to cut the whole branch. It really depends.

Jack tells me that he has to get ready for work. So, I ask if I can take a few photos before I leave and he jumps in excitement and asks if I can take a few picture of him with the plants.



Jack surrounded with all his plants. September 12, 2021.

Unpacking Aromas and the Sense of Smelling

Walking around Jack's garden and smelling the plants allowed me to let my student guard down. I let myself be enchanted by the plants aromas, colours, and sizes by simply walking around, leaning against them, and touching them. In the moment I was not preoccupied with gathering information about the plants or Jack's way of knowing them. Approaching the plants in this way allowed me to "be caught" in the moment and learn from experience. 'Being caught' (affected) for Favret-Saada, is connecting directly to the human experience of being involved in the field when one is invited to do so. It is to submit to the then and there in order to understand (Leistle 2021, 217). It requires the anthropologist to take their interlocutors seriously regardless of how ridiculous things may appear. As 'being caught' (affected) can allow us to see/point to "an element of reality that at some point escapes the grasp of language or symbolization" (Favret-Saada 1980, 22). For example, when I took the time to smell the plants in the garden, I did not have the "breath taking" experience I thought I would have like I did when I smelled the legal craft cannabis Jack showed me. Instead, the aromas of the plants triggered a memory I had in the winter of 2019, with my grandmother who was staying at the hospital, after having broken her hip. Her hospital roommate who was a younger gentleman reeked of cannabis and my grandmother made a fuss about it. She complained about the smell, and when she was moved to a different room, she pulled me close to her and told me that she did not want to stay in the room with the young gentlemen because he smelled like bad marijuana. I was surprised at what she told me, and I jokingly asked her how she knew what bad/good marijuana smelled like and what about marijuana being "cosa del diablo" (a thing of the devil). She told me a story about when she was a little girl growing up in the outskirts of rural Irapuato, Guanajuato, Mexi-

co. She told me that at the age of five, she started to work to help her family by rolling the marijuana of Campesinos in dry corn husks and that their marijuana smelled “fresca y dulce” (fresh and sweet). She says she remembers it clearly because the smell would linger on her palms and added that she knows the plants are not evil because God made them, but it is the people that consume them “que se les mete el diablo, ellos son el diablo” (the devil gets inside of them, they are the devil). When my grandmother told me this story, I laughed it off. Only a year later would I be ‘caught’ by the lack of aromas at the cannabis store.

While I cannot claim to have smelled the cannabis plants my grandmother talked to me about at the hospital. Their fresh and sweet aromas spoke to me as she had described them which triggered those memories. The aromas also reminded me of Jack’s “Terp Master” award, which opened a conversation about how Jack knows/senses cannabis. Perhaps, if I would have not allowed myself to be ‘caught’ by the aromas I would have not pressed Jack about his award. So, when I pressed Jack about what he meant by “terp master is whatever it is,” I could tell Jack was happy to have the award, but upset that in the context of standardization/legalization it meant “little.” Jack explained to me that THC and CBD are not appropriate measures to ‘know’ cannabis as terpenes play a role in the “effects” the plants produce. While the “effects” of each plant may be experienced differently, Jack wanted me to understand that knowing the terpenes, rather than the THC and CBD percentages, can be helpful in understanding the potential “effects” one can experience because its aromas (terpenes) work synergistically with the other 100+ cannabis compounds. For Jack the way he could demonstrate what he was talking to me about was by attuning my attention directly to the aromas. This way I could experience what he was talking to me about. “Being caught” between aroma and Jack became an assigned position given

to me by my mentor to get to know cannabis by asking me to take him seriously and submitting to the moment through my sense of smell²⁰.

²⁰ In recent years, anthropologists have turned their attention to multi-species engagements by taking non-human beings seriously in their scholarly endeavours, including plants. While the thesis does not engage directly with multi-species literature. My process of growing cannabis for the competition demonstrates that cannabis smell/aromas (terpenes) have the ability to affect another in a particular manner. For Jack, terpene combinations are more important in understanding how cannabis will affect him. Instead, of THC/CBD percentages. This is because Jack understands that the terpenes have 'therapeutic' and 'recreational' (or 'experiential' (as in experiencing for pleasure, along the lines of wine experiences)) effects. An approach to smell/aroma (terpenes) as an 'education of attention,' instead of a transmission of knowledge, offers lines of flight for further exploration of human-cannabis relations beyond this thesis.

Aromas and the Sense of Smelling

While anthropologists have placed attention to the sense of smell in their work, they are quick to dismiss its affects. For instance, Anna Tsing, writing about the smell of matsutake mushrooms, takes up smell as a sign of encounter with another (Tsing 2015, 46). Tsing, is quick to dismiss the 'affect' of matsutake aromas, as she turns her attention to memory and history. Yet, she mentions how the aromas transformed her in a physical way by attuning her attention to the ways she came to encounter its aromas through cooking which she claims changed her senses as she came to appreciate the smell (Tsing 2015, 47-48). Approaching smell in this way dismisses the transformation that happens in the act of smelling and makes smell into a subject from which cultural-and-natural histories can be understood as her book demonstrates. Yet, the learning Tsing underwent by paying attention to its aromas through cooking or encountering matsutake in the forest is completely dismissed. I argue that while it is attractive to write about memories and histories through aromas, such as those I had relating to my grandmother²¹, looking back I cannot help myself but to think about how we (humans) learn through our sense of smell. When my grandmother told me that the smell was fresh and sweet and that it would linger on her palms, she was telling me that cannabis is a fragrant plant. While its aromas single that it is present, they do something to us that is more than a simple chemical reaction, as they come to affect the whole body-in-the-world.

The sense of smell (and taste) are considered the 'weakest' senses, according to Aristotle's hierarchy of sense. Smelling, however, is not only a sense organ that we have to identify things in the air, at close proximity, or at a distance. The sense of smell, is also not isolated from

²¹ I don't undermine the cultural-natural histories that can arise from aroma, as my grandmother's story also tells an important history.

the rest of the body (nor acquired) as it does not work in isolation from the other sense organs as suggested by Bruno Latour in his paper “How to Talk About the Body? The Normative Dimension of Science Studies” (2004). Smelling, I argue is a way of knowing/sensing the world around us and an approach to scientific inquiry. Anthropologist Chris Low (2007), who works with Khoisan healers, writes that Khoisan “understand wind and potency through an awareness that has historically alerted Khoisan to what is special and meaningful in different forms of organic and inorganic life that they encounter” (Low 2007, 87). This awareness comes through participation in a world of winds and smells. As such, Khoisan envisage potency as “the ability of one thing to affect another in a particular manner, moving between phenomena” (Low 2007, 87). Low argues that the awareness of how potency has the ability to affect another requires an appreciation of the way humans (and plants) interact with their environments in complex ways. This became visible to me when I let myself affect and be affected by the plants in my home and in Jack’s garden.

One of the challenges of approaching smells/aromas, is that they are difficult to conceptualize as “They cannot be disassociated from their causes and/or effects, and thus cannot be organized into a hierarchical classificatory scheme, in the way that are, for example, colours” (Moeran 2007, 156). This is because our sense of smell can orient or disorient us because it is intimate and immediate. As a result it makes it difficult to study or use it as a methodological approach to ‘knowing.’ Smell, then becomes a subject that is discussed or a passive sense that is inactive until stimulation (Köster 2002, 29). Smell, I argue is active rather than “passive” and “inactive”. We do not stop smelling because we do not stop breathing. Aromas travel and are carried by air and we are continuously smelling/breathing aromas. However, it may not seem this way as humans can recognize thousands of different smells in our everyday lives, which makes it difficult to remember or sense when one is not paying attention. Until it affects the whole body-in-the-world at close proximity or at a distance. As a result, humans cannot normally recall aromas independently of external stimulus, “since we cannot conjure up a smell in the same way that we conjure up a visual image, sound, or even taste” (Moeran 2007, 156). Yet, our sense of smell can adapt its “sensitivity” to the environment around us and thus can have an (un)con-

scious influence on our “behaviour and moods: on how long we spend in a particular place, on our perception of others (human and non-human), and even on how well we perform certain tasks” (Moeran 2007, 157, Köster 2002, 31). In other words, our sense of smell is always active. Whether or not aromas make us sick, anxious, happy, energetic, angry, or put us at ease, understanding the sense of smell as ‘passive’ undermines the way humans come to know and learn from sensing aromas.

Training Day II: Bird Poo, Powdery Mildew, or Mold?



September 26, 2021.

I arrived at Jack's home at 10:30 am. I was supposed to come over the day before, but Jack was feeling "under the weather." As I approached the garden fence, the smell of sweet/citrusy cannabis was prominent in the air. The leaves on the trees have started to change colours, a sign of harvest season. Jack had sent me a message to enter the garden upon my arrival. When I entered the garden I first noticed that most plants had tape on the stems and were supported by ropes and sticks.



Tape on the Headband and plant. September 26, 2021.

Jack: Hi Nina, how are you? Sorry about yesterday.

Nina: No problem, are you feeling better today?

Jack: Yes, I am feeling better. Did you notice all of the support around the plants?

Nina: Yes, I was going to ask you what is going on...

Jack: Well, the strong winds have cause some of the branches to break. That is why you will notice tape on some of the stems. It is there for support.

Nina: Is it the wind or the rain as well?

Jack: There is no problem with the rain. It actually helps ease some of the work. If I were growing with liquid nutrients I would not be very happy, but with organic methods a little rain will never hurt.

Nina: Why would it be a problem if you were to use liquid nutrients?

Jack: Well, all the water would flush away the nutrients. When using liquid nutrients you only want to flush at the end, unless you over do it. Did you know that you can tell when the plant has not been flushed properly?

Nina: No, but I have heard some growers say that it is not necessary to flush.

Jack: Oh my.... Well, you can tell it is not properly flushed when you burn the herb. If it burns black, don't smoke it. It is bad quality. You want to see light to medium grey ashes. That is how you know it is good quality, the ash colour let's you know that the plant has been grown and cured properly. You know, many online growers will tell you to do this or that to increase yield or flavour, but it's a bunch of 'bro science.' I hear it all the time, people do whatever they believe is right, but I just follow the real master growers²² and always refer to the Cannabis Bible (Marijuana Horticulture the Indoor/Outdoor Medical Grower's Bible by Jorge Cervantes (2006)).

Nina: There is a cannabis bible?

Jack: Well, it is not really a bible. But, yes! It was written by Jorge Cervantes who is a true organic master grower. The information to grow cannabis is out there, but you have to want to learn it. That is fine if you don't want to learn and just grow with the bare minimum. However, I am learning as I go along, and I enjoy doing it, and I like growing more than consuming. I understand that there is this mystic to cannabis because it produces wonderful experiences, but it's a

²² Master growers have a great depth and breadth of knowledge and experience cultivating cannabis.

plant, so why should I treat it differently from tomatoes or squash? Growing cannabis is not rocket science. You have to work with the elements. You cannot stress about things individually. Instead, try to work with them all as much as possible. I do not have to worry about lights or the environment because the plants will find sunlight and feed their needs. All I have to worry about is feeding the soil, watering, and dealing with pests and intruders. That is why I like to grow with organic methods because what I am looking for is clean, safe, and tasty cannabis. I do not put too much attention to quantity and some organic growers will push for quantity, but for what? to show off? I understand and to each their own, but I don't like to make too much fuss. This is why I don't get involved in cannabis conversation online anymore because all I hear is THC or quantity. All I want is to share the little knowledge I have gained over the years. I am not interested to go on social media and argue. Why would I do that?

Nina: Yea, I noticed this online.

Jack: What do you think about it?

Nina: I definitely see the trend towards THC and quantity. However, I have also noticed that it is very toxic and male dominate on certain platforms and forums.

Jack: Oh yes! That is why I say it is all “bro science.” Some people are caught up in enhancing the plant rather than letting it be. Some of them also dislike the legalization of cannabis. Occasionally, I will post about how the legal market is doing good and it just get's them all fired up. It's my way of pushing back. Anyways, I digress. Let me show you what I have been dealing with.

Jack takes me to the back of the garden and he has isolated two plants in fabric pots from the rest of the plants.

Jack: These are the plants that have been causing trouble.

Nina: What is wrong with them?

Jack: Take a look at the buds sites and tell me what you see.

Nina: They look good..... oh wait..... what is that top coat? Is it bird poo?

Jack: No, it's not bird poo. It is powdery mildew. I will have to deal with it old school because it is spreading fast.

Nina: How do you deal with it?

Jack: We are going to trim all of the leaves with powdery mildew.

Jack asks me to wait for him while he goes indoors to get a few things. When he comes back he is holding two pairs of trimming scissors, gloves, a bottle of 70% alcohol, and a brown paper bag.

Jack: We are going to trim the leaves, but do not drop them on the ground, put them in the brown bag or else the powdery mildew will spread.

As Jack and I rotated around the plants trimming the leaves Jack expressed that the plants were starting to become very needy because they want to be pollinated and therefore the buds were developing faster, but due to the rain, wind, and humidity it makes the perfect environment for powdery mildew. Once we were done trimming the plants he told me that he wanted to show me the buds up close using his "gadgets" (tablet and pen). Jack set up the pen which had a camera and as he pointed to the buds we could see the trichomes up close on the tablet. However, the winds were too strong and it was difficult to see the trichomes up close and take photographs. Jack said that the trichomes still looked too clear and what we were looking for was signs of a "milky/creamy" colour. As we attempted to set up to take some photos the wind was picking up, so it became difficult to see the trichomes.



Set up to trim the plants with powdery mildew. September 26, 2021.

Making Sense of Growing

During the second training day, Jack wanted me to understand that while cannabis can produce wonderful experiences, it should not be treated differently than tomatoes or squash because it is a living organism capable of growing on its own under appropriate environmental conditions. For Jack, attending to the plants in the garden establishes the environmental condition for their growth and development. This can include setting traps for the squirrels, or dealing with the spread of mold and powdery mildew. His involvement, in establishing the conditions for growth are precisely the developmental conditions under which 'growth to maturity' can occur (Ingold 2000, 86). For Jack, this was something important for me to learn, as acknowledging that the plants mature, is an acknowledgement that the plants undergo biosocial transformations. Looking back, perhaps this is why Jack did not care about whether or not I could identify the aromas of the plants because it was not about identifying. It was about paying attention to them in their development.

For Jack, it is important to respect cannabis as a plant because there is really no mystic to it, although it can be enchanting. Jack understood that bringing the plant indoors due to prohibition shaped cultivation practices focused on biotechnology and genetic engineering which gives the impression that quality in cannabis is made. Hence, his comment about liquid nutrients and THC/quantity being related to "bro science." As he knew that the plants could develop their own 'quality' through their process of growth and maturity which he is apart of.

Training Day III: Cannabis at Night



I arrived at Jack's home around 5:30 pm. There was a young gentleman at his front door. I said hi to them and made my way into Jack's garden through the backyard gate. Jack was watering his plants. I greeted him and told him that someone was at the front door. Jack stopped watering his plants and gave me a suspicious look, and as he walked to the gate, the young gentleman walked into the backyard. Jack told me that it was his wife's son and introduced us.

Jack seemed happy to tell his wife's son that I was a student writing a paper about cannabis and home growers. His wife's son jokingly asked if I was the first in academia to do such research. I told him that the legalization of cannabis has opened up the opportunity for conducting cannabis research and that I am primarily interested in the process of growing cannabis. He then responded by saying that he had attempted to cultivate but that it was hard. Jack interrupted and told him that his wife (Jack's wife) was waiting for him at a friend's house. The young gentleman became upset, made a phone call, and left. Jack told me to follow him to see the plants. He was excited to show me some fan leaves, including the Pineapple Express and Pink Lemonade, which had turned purple. He said he would give the plants for the grow cup a few more days before harvest. However, today he wanted to start preparing some of the other plants he will turn into edibles. He asked if I wanted to help him trim some of the fan leaves and help him inspect the buds. I agreed and Jack rushed indoors to grab two pairs of trimming scissors, a paper bag, and rubbing alcohol. He told me he would start with the ones in the back because they haven't been doing great. The last time I was over, the plants in the back had powdery mildew. So I asked him if they still had some, and he said that some buds may have some, which is why he wanted to "get these ones out of the way." Jack handed me a pair of trimmers and asked me to only cut the fan leaves. He told me to look closely at one example and to repeat on the plant beside. As we started to trim, Jack asked me how the project was going.

Nina: I am writing some notes about how I failed to grow for the competition.

Jack: Did you not control the pests problem? Tell me what you did...

Nina: Well, the neem mixture seemed to work for the pests, but the room temperature was hard to control. I put them outside the tent and they seemed to like it. But, I can't keep them out be-

cause my partner has allergies. The leaves also started to turn yellow. So, I kinda gave up on them.

Jack's facial expressions spoke louder than words during that conversation.

Jack: It is really not that hard to grow cannabis. I was checking the weather forecast from last year this morning and on this day, last year, it was -2. We are lucky this year to have nice weather at this time. Ottawa is a great location to grow certain plants because you get good summers. Yea, it starts to get cooler in September, but most people also forget how resilient cannabis is because it is a "weed."

He stopped and became very quiet...

Jack: Come close and take a look at the top buds. You see it?

Nina: The brownish colour?

Jack: Yes, this is mold. I must have not shaken the branches enough to remove the excess water with all the rain we have been getting. Now mold is starting to develop.

Jack took his big stem cutter and chopped off the whole branch.

Jack: These plants are giving me too many headaches now. At this point I just want to harvest them...

He then turned towards the plant and spoke to it and said "you are not bad, just too much fussiness from you." Jack then told me to wait while he went indoors to grab a flash light. When he came back he brought a step ladder with him too. He set up the ladder, climbed up, and started to flash his lights at the bud sites.

Jack: I need to take a close look at the top colas to check for mold and powdery mildew. Or else it will keep me up all night.

Jack started to closely inspect each bud by placing his flash light over head and closely placing his face close to the buds. He asked me to hold the flash light while he looked closer at the buds. He then asked me to switch so that I could see what he was talking about. I climbed up the ladder and noticed a light coat of powdery mildew.

Nina: I see some powdery mildew, it's interesting how it looks like trichomes from a far, but when you get close, you can tell its powdery mildew.

Jack: That is why I loose sleep during harvest week, because I have to make sure that they are ready to be harvested. Next year will be different because I will only grow four plants. Oh! before you leave I need to show you my new toy that came in the mail.

Nina: What did you get?

Jack: A mechanical leaf trimmer! I am excited for it because it will save me so much time by weeks!

Nina: Will you use it for all your plants?

Jack: Yes. It's not that big of a deal that is what Licensed Producers use to trim their buds. I know some growers are going to shame me for it because it is known that best practices include trimming everything by hand, but I don't mind because it is all going to be edibles anyway.

Nina: Will you do the same for the grow cup?

Jack: No, for the grow cup I will hand trim and cure the buds old school.

Nina: How do you cure old school?

Jack: Well, I like to hang the branches leaving about five inches at the base stem as it allows the flowers to retain some of their moisture. If you do not leave any branch room and cut close to the buds, it will dry too fast and you don't want that. You want slow moisture release. I usually leave them on the hangers for about 10 days. This allows the plant to fold into itself to preserve the trichomes and slow down the drying process. Once I am confident that the buds are dry enough I transfer them into a paper bag. I burp the bag every other day checking for texture and smell. Fi-

nally, once they are ready I place them in a glass jar. The whole curing process can take four to five weeks and even longer sometimes. This is why the grow cup does not make sense. If it were a real grow cup they would take curing time into consideration for criteria.

Nina: How do you know when the buds are dry to transfer into a paper bag?

Jack: You want to hear a 'snap' when you break the stem. If you don't hear the stem break, it is not ready.

The sun was starting to set and Jack told me it was time to look at the trichomes closely. Last time I was over it was difficult to see them as there was too much wind.

Jack: We will inspect every plant except for the blue dream in the back. They are not going to be ready anytime soon. So, our task is to look out for mold and powdery mildew. As we go along I will show you how I determine when the the plants are ready for harvest.

We started with Pineapple Express. Jack took out his flash light from his back pocket and told me to look at the trichomes, they looked like sprinkled sugar on the flowers. Jack placed his hand on the stem (never on the flowers) and pulled it close to his face. He moved the flash light up and down looking for mold and powdery mildew. He then took out a jewelry loupe and told me to look close while he held the flashlight.

Jack: What do you see?

Nina: This bud looks healthy! No powdery mildew and no mold.

Jack: What about the trichomes?

Nina: Umm... they look good.

Jack: Okay, but look closer. Do you remember last week how they looked clear?

Nina: Yea...

Jack: How do they look today?

Nina: They look a creamy colour.

Jack: Yes! This is what we want to see. A creamy colour means that it is ready to be harvested, but it also tell us that its molecular compounds have developed. This is how we can tell if THC is present. When it becomes fully white that means that it is over due and that it will be higher in CBN. Do you know about that molecule?

Nina: Not really...

Jack: Well, it is used for medicinal purposes, it makes you feel couch lock (a feeling of immobility from the 'effects') without the THC effects. Its very body intense. Very different from CBD.

Nina: I did notice some CBN drops at the cannabis store the other day, but I figure it was the next trend.

Jack: They want to make all the molecules into a trend, but we know it's a standardization thing... At least for the recreational market. I digress, but the trichomes tell us that harvest day is around the corner.

Jack and I continued to look at the plants/trichomes for a few hours. At around 8:30 pm when it was dark you could see the buds shimmering under the flash light. It looked unreal. While the trichomes are noticeable during the day time it is difficult to tell their colour. However, in the nighttime the contrast of light allows the human eye to see through the trichomes.



Jack flashing the plants at sunset. October 9, 2021.

What We Take Home From Growing

For Jack, growing cannabis for the grow cup did not entail a final product focused on THC and Terpene percentage as per the contest criteria. Instead, growing cannabis, for Jack, entails undergoing an ‘education of attention.’ His focus on the process of growing rather than the execution of actions allowed me to notice how attending to the plants in the garden establishes the environmental condition for their growth and development. Perhaps this is obvious to any experienced gardener. However, for me it was exposure to something I did not know. This made me appreciate his skills and reflect on my own failure. I had approached growing cannabis with the pre-conceived idea that growing for a grow cup entailed action upon ‘nature’, assuming that cannabis was made from human design. However, this is not true.

For Jack, part of the growing process was about enjoyment and dwelling (at least for the grow cup). This, I argue, was important for Jack to show me as he wanted me to acknowledge that plants mature and undergo biosocial transformations. In his understanding, he played a small part by continually attuning his “movements to perturbations in the perceived environment without ever interrupting the flow of action, since that action is itself a process of attention” (Ingold 2000, 215). For instance, when he cut the branch from the Blue Dream. While Jack did not know precisely what was happening, he learned from dwelling with the plants that the branch was not looking good. Taking action for Jack was not something he thought out in advance, nor was it the application of acquired knowledge. Instead, taking action is a process of noticing with attention, judgment, and dexterity, inseparable from doing, as practical engagement is a process of enskilment (Ingold 2000, 215- 216).



Pineapple Express at Night. October 7, 2021.

Chapter 3: Harvest Day

Training Day IV: Brushing Off the Winning Criteria

I arrived to Jack's home at 10:00 am with a box of donuts and tea. I knew I would be spending all day with him, so I thought it be a nice gesture to bring some food. I could smell the plants from the entrance of the driveway. It kept getting stronger as I walked to the garden gate. It was unbelievable! I pushed the gate open and placed the donuts on the patio table. Jack noticed me and shouted for me to come over. A trail of colourful maples leaves and cannabis leaves led me to the "trimming table". Today, Jack's garden looked like a workshop. The main station had a two feet long table with three bins covered with white bags (one for colas and branches, one for trimmed buds, and one extra bin) and the mechanical trimmer. The second station was the "sanitation station" with hand sanitizer, two spray bottles of 70% alcohol, gloves, five trimming scissors, and a knife. Behind Jack there was a third satiation with a wooden basket covered in a garbage bag which held the best colas that would be completely hand trimmed (including the ones for the grow cup).

Jack: Hey Nina! Thank you for coming today. It is finally the day! Peter meet Nina she is a master's student doing her research on me and my plants.

Nina: Hi Peter! It is nice to meet you.

Peter: Hi Nina, nice to meet you too.

Jack: So, here is the plan for the day—we will try to trim and harvest all of the plants in fabric pots. I will cut the branches from the plant, Peter will remove the fan leaves, and Nina you can cut the buds from the stem and place them in the bin. Then we will trim them with the mechanical trimmer. Nina you should put gloves on because it will get sticky and you might get hives, it also prevents cross-contamination from the other plants.



Photo taken by Jack. Set up before I arrived. October 9, 2021.

I put on gloves and stand in front of Jack and Peter facing towards the garden gate and all of the plants.

Jack: I am excited to show you how the mechanical trimmer works! This is going to cut down the work time involved in trimming the buds. If I were to do it by hand it would take me weeks! I know it is not “best practices,” but I don't care it's all going to be edibles. I am going to hear all about it online, but I am alone with ten plants. I have you here, but ten plants is a lot of work as you will see. Here let's try it— (See [Video](#))

Jack removes the lid from the mechanical trimmer and loads it with some of the buds that were in the bin.

Jack: What I like about the mechanical trimmer is that I have more control than electric trimmers. The manual says to spin the handle twelve times clockwise and twelve times counter clockwise... I think it is too much, let's try eight spins on each side.

As he spins the handle I could see excitement in his eyes. They were widened and focused on the rotation of the blades as he counted each rotation. When he removed the lid he took out a bud and was happy with the result. He smiled.

Jack: isn't it nice? There are some leaves left over, but we can hand trim those. It is so nice that it reduced the trimming time by a lot. So, let's continue trimming.

I grabbed one of the branches to cut the buds from. I was being careful not to cut the buds so I was being cautious.

Jack: Nina you are too gentle with the plants, just trim them.

Peter: That is Jack's way of telling you that you are slow.

Jack: That is not true, you are just too gentle and meticulous with trimming. Don't be scared of just snipping the buds away.

I felt embarrassed at the moment but realized that Jack was telling me to be confident in what I was doing. So, I started to pick up speed. As we continued trimming, we all shared a few stories about our experience with cannabis. Around 11:30 am, Jack, said he would take a break and eat a donut. He had been up since before sunrise working on the plants. His friend and I continued to trim the flowers and continued sharing stories. When Jack returned, he told me that the machine was ready to "go for another spin" and asked if I wanted to try spinning it. He loaded the machine, closed the lid and told me to rotate eight times clockwise and counterclockwise. We counted together, and he expressed joy and excitement when he lifted the lid. He repeated that he would hear all about it on social media from other growers but that "it just cuts down time". I asked him why the other growers would make him feel bad about using the machine. He said that some of the growers who follow him are old-school and meticulous about hand trimming because it is part of their craft. Jack said that if you have the time and friends/employees to help with hand trimming, there is no problem, but that he was alone and with ten plants. He said that it is not impossible to hand trim everything, but that it takes too much time and that it doesn't matter because he will make edibles with most of his plants.

He then removed the bottom screen of the machine and showed me all the fallout from the trimmings. He said other growers would tell him that using the mechanical trimmer is bad as he is losing trichomes. But, for him, it was unimportant because he could still use the fallout to make edibles, hash, oils, butter, and any other product he wanted. His friend stepped out of the garden to smoke a cigarette, and when he returned, he told Jack that some plants were in the driveway. Jack looked surprised and told me to follow him and see what was happening. In the driveway, there were two large bushy plants in fabric pots. Again, Jack looked surprised and upset. He said that his neighbour must have left the plants there and that they should have told him in advance that they were dropping off the plants. I looked closer at the plants and noticed that most fan leaves were covered in powdery mildew. Jack asked me to help him carry the plants closer to the backyard gate, and as we were about to lift one of the pots, we noticed that the bottom stem

had broken off. Jack told me that this must have just happened because it looked fresh. He fixed the branch and told me to hold it in place as he rushed indoors to get some tape. When he returned, he expressed his frustration with his neighbours leaving the plants in the driveway. As he carefully taped the branches, he told me it would not work out, so he rushed back indoors to get a stick to help support the branch. Jack told me that he was not expecting the plants in his driveway and that he had given his neighbour the recipe to treat powdery mildew. And that they clearly did not do it.



Plants in the drive way. October 9, 2021.

Jack told me he would stop the trimming and wash these plants to save some of the flowers. He carried the two plants to the backyard gate and returned to the trimming station. He told me he would do his powdery mildew mix and show me how he "washes" the plants. I continued trimming the other plants as he went through his phone for the recipe. Finally, Jack told me to wait and that he would go get the ingredients inside his home. Jack returned with three large bins and started filling them with water. Jack was missing lemon juice for his mix and asked if I did not mind staying alone while he went to the grocery store. Jack returned quickly from the store and called me to see how he would "wash" the plants. He left the plants near the backyard gate, away from the other plants, to prevent cross-contamination. However, before he showed me how he washes the plants, he put up three sticks on the other side of the yard close to the trimming station and made a "hanging station" with some rope and clothing clip hangers. Once his drying station was set up, he lined up the three big containers side by side. The first container was a mixture of water, baking soda, and lemon juice, and the second and third containers were filled with filtered water. Jack told me that he would try to save the top colas and that while he washed the plants, he would think about what he would do with the rest of the plants.



Powdery Mildew on the plants in the drive way. October 9, 2021.

Jack cut down one of the large colas and trimmed off all the fan leaves. He left about five inches of the stem as he was going to hang them to dry. He took the first branch and dunked it in the mixture for 30 seconds which he counted out loud, and then repeated the same thing with the other two containers filled with water. Jack told me that this technique is old school and often works but that his neighbours had let the powdery mildew spread and would not be surprised if the plants did not make it. Jack was focused and meticulous with the process. He told me that other growers would shame him online for his techniques because washing your plants is not considered part of the best practices. However, Jack said he is careful and does not affect the buds because he is not aggressive with them. He noted that some trichomes might be lost but don't make a big difference for him. After all, he is not interested in high THC. Jack quickly walked across the yard to hang the top cola from the branch upside down. He said he would wait a couple of hours to see how the flowers reacted and if he would repeat the process or let them go. He asked me if I did not mind continuing to trim while he repeated the process. I returned to the trimming station, and we finished the first plant.



Hang drying station and defoliated plants ready to be cut down. October 9, 2021.

Jack repeated the wash process from across the yard as we continued trimming the flowers. I noticed how he was focused and precise with the timing of when to remove the colas from the solution and water. I also witness the intensive body labour that goes into harvesting and washing the plants. Jack had to bend his body up and down throughout the washing process. He walked back and forth from one side of the yard to the other to hang the colas. Jack also had to decide which colas were worthy of being cut down and put through the washing process. He focused more on the top colas around the main cola in the middle. He did not care about the main cola because it was too moist, and he could not save it. Jack did not complain about the work he was putting into harvesting his plants. On the contrary, he was delighted and joyful, and every time he passed the trimming table, he thanked his friend and me for helping him out. His friend asked if any other friends were coming to help. Jack responded by saying that some of his co-workers said they would show up but that it was the long weekend and they most likely will not come. And then, a family member went through the backyard gate. Jack welcomed them in and presented his friend by name and me. His family member told him that his garden smelled nice and his plants looked great. Jack asked them how their plants were going, and they responded by saying they were growing and going along, but they were not as lovely as his. Then, his family member grabbed a pair of gloves and trimming scissors and started to work on another plant. Jack asked them to give the plants a “haircut” but not to trim any branches off.

Within ten minutes, two other family members showed up. Jack's wife came outside the house wearing a Tweed apron. She had been indoors cooking thanksgiving dinner. His wife and sister-in-law stayed at the backyard gate chatting. The husband of his wife's sister came closer to the trimming table and told Jack that his plants looked amazing. Jack was flattered by the comments he was receiving. Jack introduced his friend and then proudly introduced me as a Master's student doing her research on Jack and his plants. His brother-in-law asked me if it was allowed in academia to do a research project on cannabis like that. I responded by saying that cannabis legalization has opened the door for research related to cannabis. He then told me he was also an ACMPR grower but not as good as Jack. He said that he was growing outdoors and indoors using hydroponics. He then took out a pack of legal machine-rolled cannabis joints/cigarettes and offered one to everyone. Jack told me that the machine-rolled cannabis joints had just been re-

leased by Redecan in 0.3 mg to prevent joint sharing due to the pandemic. He said they are small, but it is nice to carry if you want to share with a friend. His brother-in-law told us to take some as we trimmed. Jack and I declined, but Jack's friend and other family members took a joint each. I did not ask Jack nor his friend why cannabis smoking was allowed in the garden with the plants, but not tobacco. However, I did notice this separation throughout the day.

Jack gave his brother-in-law a garden tour and explained what we were doing with each plant. Jack asked his brother-in-law if he wanted to help, and he said yes. Jack told him that he would finish washing the plants with powdery mildew and move on because he would not be able to save the whole plant. Jack returned to cleaning the plants, and his brother-in-law came near the trimming table to grab a joint. While he was at the trimming station, he told me that his outdoor plants were much smaller than Jack's but that it was because he did not care about them the way Jack cares for his plants. He said that Jack is the best grower he knows. He told me that, unlike Jack, he did not care about the looks or smell of the plants because he pressed them all into oil.

Jack expressed his gratitude to all of us for being there with him and showed joy by saying that he did not expect to get to the Pineapple Express today but could at least start it because it would be a lot of work. His wife and sister approached the trimming station and introduced themselves. Jack rushed towards the table to introduce me as a Master's student doing fieldwork on him. His sister-in-law told me that I had the perfect candidate because Jack cares about his plants more than he cares about people and other things (jokingly). She said that Jack has the nicest plants she has ever seen and that you can always find him in his garden instead of with his wife. Jack's wife laughed and said that it was true, that Jack truly cared about his plants more than anything. Jack's wife asked us if we wanted anything to drink. She returned indoors and brought some water, juice, and soda. Her sister asked her if she had helped Jack with any of the plants, and she said she was helping him earlier in the day because Jack woke up before sunrise. But the food was in the oven, so she could help a bit.

Jack then climbed up his ladder to cut down the top colas of the Pineapple Express. We were all working on trimming the plants, it felt like a family gathering. I stayed at the trimming station working on the buds as I listened, observed, and became enchanted with how Jack and his

family interacted. No one complained about the smell; everyone was good, with some people smoking cannabis as they worked on the plants. They were all snipping away at the fan leaves, leaving the colas untouched. Jack and his family talked about how things were going with each other and the pandemic. Jack would randomly shout out when a ladybug was on the plant he was working on. He would tell it that it would wait until it would fly away or that he was about to cut a branch and watch out. His sister-in-law asked him why he was so lovely to the ladybugs, and Jack said they were his other little helpers because they are a natural pesticide.



Trimming station halfway through the day. October 9, 2021.

Jack never spoke of himself as being apart from the environment in which the plants were growing. He saw himself as a “working bee” or “working ladybug.” In the sense, that he situated himself within the environmental context in which the plants were growing, not outside of it. He commented to all of us that while he likes to grow using organic methods, online he is not considered a 100% organic grower because he uses store bought organic fertilizers. He said that other growers do not consider that organic, but that it did not matter to him because he doesn't have the time or all the resources to be 100% organic. So, he works with what he has. Throughout my time with Jack he never used any chemicals or pesticides. He would always tell me to leave the creepy crawlers alone as they were also there to help out. Jack also worked with and not against the elements. For instance, while the rain and high heat temperatures caused some of the plants to develop mold, he did not panic. Instead, he would walk around the garden and give the plants a good shake to remove the excess water. During our conversation his wife commented how she had woken up to the sound of the leaf blower in the middle-of the night and when she went outdoors, it was Jack drying the plants from the rain. Jack clarified that he was not trying to dry the plants, instead he was blowing the rain away to prevent the flowers from getting moist. Jack told us that if he doesn't do this he can't sleep at night. He also said that it was a great blow drier for when he gave the plants their hair cut, we all laughed.

Jack: It may be funny, but last week we went on a field-trip with work to an outdoor licensed producer facility. While it was nice and breathtaking to see fields of weed, the plants looked bad. From up-close you could see that they were yellowing and they were allowing people to touch them and put their noses up close. I asked them if this was a concern and they told me that it didn't matter because everything that is grown outdoors has to go through radiation to kill any left-over bacteria. I was surprised because I am sure that radiation affects the end product. Anyways, not to brag, but my plants are much healthier.

Jack interrupted himself again by talking to another lady bug.

It was around 5 pm and Jack's family and friend were leaving. Jack told me that I could also leave and that he appreciated me coming over.



Jack showing off his leaf blower. October 9, 2021.

‘What We Take Home’

Jack and I received a submission package via mail from the grow cup organizers. Inside the submission package was instructions for mailing, a sealed ziplock bag, envelope, a branded sticker and face mask. On the submission form it stated “do not worry about your buds being damaged as they will be crushed when tested at the lab.” I found the instructions quite disappointing and messaged Jack asking him how he felt about the submission package he received.

Jack: Why would they put that on the submission form? We work so hard for them to tell us that our buds will be crushed! I understand that they are going to the lab, but it dismisses our work and time we dedicate to the plants. It just goes to show that they did it to market their seeds. If they at least cared about us growers they would have not told us that the buds are being crushed for testing. I understand that they legally cannot judge our buds based on aesthetics or smell, but don’t tell me that the bud doesn’t matter because it is going to be crushed!

Jack and I both entered the competition knowing that the buds would be tested for THC and Terpenes percentage. However, we did not know that the buds would be crushed. Perhaps this should have been obvious, but it was hard to tell as there was barely any communication about testing/contest criteria. So, while we knew that the plants would go through testing we did not know what that testing entailed. Other grow cups such as the High Times or Emerald Cup take growing methods into consideration in their criteria because they (as cannabis aficionados) know that growing methods are part of the “final product.” However, this did not matter in the context of the 34 Street Seed Co grow cup. This perhaps contributed to Jack’s frustration and resistance to both offline and online standardization.

Home Growing as a 'Science of Bricolage'

Throughout the apprenticeship, I got to know Jack differently. Jack grew up in an era where cannabis was consumed with the leaves, and experiencing the 'effects' was not to get 'stoned' but rather to feel a 'buzz.' However, with cannabis raids and the War on Drugs, cannabis growers adapted to indoor growing, which sparked an intense era of education about the plant and artificial environments (Pollan Feb 9, 1995). By bringing the plant indoors, cannabis growers could 'manicure' the plant to achieve the current aesthetic of the buds (flowers), such as those presented on the covers of High Times magazines. So, the perfectly hand-cured buds are a 'new' thing, and for some cannabis connoisseurs respecting the "craftsmanship" of the perfectly cured and trimmed bud is crucial to how cannabis is known in the context of grow cups; hence, the stigma and shaming for using 'non-traditional' methods, such as a mechanical trimmer. While Jack respected the methods/techniques and the sentiment of doing everything by hand, he liked to push back on these practices by not doing them. What is interesting about Jack's indifference to standardization cultivating cannabis for the grow cup was not to prove something or to show off that he knew best. Instead, Jack worked with what was available to him to show/push back on the things that escaped standardization and competition.

The grow cup was an opportunity for Jack to meet people and share "the little knowledge" he had gained growing cannabis as a medical patient over the years. So, his attention was not so much on the event of the grow cup. Instead, as I noticed, attention was drawn to his ability to navigate growing cannabis by dispensing the structured sets of legalization/standardization and the contest-winning criteria. While Jack respects the guidelines, his love/appreciation for the plant exceeds standardization. As he is skilled at growing cannabis and navigating legalization/standardization by working within some structures and brushing off other sets of structures. He makes do with what is already there. Jack told me multiple times that legalizing cannabis is a step forward, even with all the restrictions. It was a "good" governmental decision that he supported. Yet, as he told me during our formal interview: "the industry is new, so there is room for change." For Jack, taking the role of budtender and grow cup competitor is his way of taking part in the change and growth of the industry because he can shift conversations and make a differ-

ence by turning conversations about cannabis without reducing it to THC and CBD. Yet, he still reduces the plant to a metric percentage, per the guidelines. He is fine with doing this as it is his way of working within the conjoined legal/ public health/ industry framework.

Jack's navigating legalization/standardization skills allow him to find meaning within the structured sets; change is possible with what is already there. So, like the bricoleur, Jack makes do with what is available to him to build his own structured sets within the "remains and debris" or "odds and (loose)ends" of what escapes legalization/standardization. In other words, Jack is not concerned about rebuilding or developing a new design for what is already there. He is good with what is there. Yet, there is more that can be done, as he demonstrated by attuning my attention to his way of knowing/sensing cannabis, which escapes the current conjoined legal/ public health/ industry framework as profiled in the contest criteria.

Chapter 4: Learning by doing

Growing Pineapple Express



Indoor Set up. December 1, 2021.

I set up the Philips light at the edge of my working desk. I used an old desk lamp and some books to keep it in place and at the right angle. My partner was concerned about his allergies and Kenzō (our new puppy), but I promised him that I would not let it affect them.

October 23, 2021, she is not producing any new growth, the overall colour has changed. It is no longer yellow. I am sure she will need a few weeks to recover.

November 1, 2021, she has been recuperating quite well. The colour of the leaves and stem is a nice medium lime green. I have not noticed any growth in height, but there is lot's of new leaves. I topped the soil this afternoon with Gaia Green all purpose fertilizer and trimmed off some of the yellow leaves. I trimmed the leaves because I wanted the plant to focus its energy to the new growth. Jack was correct to tell me that sometimes it's best to cut out the dying leaves.

November 13, 2021, I am so excited!!! I noticed the pistils are starting to develop and the trichomes are starting to form. This means that she is ready to be transition into her flowering light cycle! I am amazed at how resilient these plants are. I am finally going to have my first harvest!

A few things to note:

1. She has grown about an inch in height
2. The stem and the leaves smell herbal

December 1, 2021, a citrusy smell is starting to develop! The pistils and trichomes are coming along well. There has been no noticeable change in height, Jack tells me that it is probably not going to grow in height because of all the stress that it went through.



Pistils starting to develop. December 1, 2021.

December 25, 2021, today was an interesting day. So, I have trained Kenzō not to go close to the plant and so far he was good about it expect for today. For some reason as I was watering it kenzō ran towards it and tried to bite and rip off some of its leaves. I wonder if it was jealousy, curiosity, playfulness or the plant itself that capture his attention?

January 1, 2022, Kenzō has been very active around the plant so I cleaned out the entrance closet to set up a new environment for the plant. I took out the Spider farmer light, fans, and humidifier. I feel like its going to be a nice spot for its last weeks.

January 21, 2022 WOW! There has been lots of noticeable changes over the last week. The pistil colours are turning auburn. There is also some purple/pinkish hues developing at the centre of the leaves. It's so beautiful!

February 5, 2022, wow today was something different! So, the smell of the plant has been citrusy/sweet over the last few weeks. however, the smell was not strong in the house. You could only really smell it if you got close to the plant or touched it. However, this evening around 6 pm the house started to smell like fruity pebbles! It was a strong sweet tropical smell. When I was in the garden with Jack I noticed the smell always intensified in the evening, but I did not realize how strong it would be in the house. Unfortunately my partner experienced an allergic reaction.



Closet set up. January 1, 2022.



Pineapple Express during flowering stage. January 21, 2022.

February 6, 2022, round two of smell bombs! I personally like it. It literally smells like a Pina colada with a citrusy punch. Its quite fascinating how a tiny plant like this can produce and release such beautiful aromas. My partner is hating this.

February 10, 2022, the aromas have been intensifying every evening. Kenzō is now also experiencing allergic reaction. This evening I tried to let the aromas come through by being present with the plant. Here is what came through:

1. Citrusy - with lime/sweet undertones, it is not bitter. It's zesty
2. The sweetness compliments the citrusy aromas. It is a fruity sweetness
3. Pineapple- I can smell the pineapple, it is not too powerful, its noticeable, but it seems to also be complimented with hints of mango.

February 14, 2022, Jack gifted my a jewelry loup to look at the trichomes and they are starting to look opaque. They look like they are almost ready for harvest.



Pineapple Express in the dark. February 14,2022.

February 16, 2022, the trichomes are looking creamy and I feel confident that the time to harvest has arrived.

February 17, 2022, according to some growers if you deprive the plant from light for the last 48 hours before harvest the terpenes are supposed to be "stronger". This technique has not been scientifically proven, but I will give it a try. Jack told me that he did not think it would do anything, but that I should still try it.

February 18, 2022, the smell is intense, but it is not filling up the air in the house. I am not sure if the light deprivation is working. The trichomes do look sparkly though!

February 19, 2022, I cut down the Pineapple Express this morning. I trimmed off a few of the big leaves and let it hang dry in the closet. I did it! I finally grew my first harvest. I have certainly learned a lot throughout this process. I can't wait for next year!



Pineapple Express after being cut down. February 12, 2022.

Knowing From Growing

Tim Ingold writes, "The novice becomes skilled not through acquisition of rules and representations, but at the point where he or she is able to dispense with them" (Ingold 2000, 415). For Jack, dispensing the standards and contest criteria makes him a skilled home grower. His way of knowing/sensing cannabis exceeds the contest criteria and legislation because his attention is not on a final product focused on a single molecule. Instead, it is in the plant's overall health because he understands that the quality of the plant's life cycle and maturation is what allows it to be of good quality. Through his experience living with cannabis by growing it, Jack can distinguish bad and good cannabis from its appearance, smell, taste, and even how it burns. While Jack competes in the grow cup for enjoyment, the plants he grows are used as medicine. He stressed several times that growing his own medicine was important to him because he knows that the plants are "clean, safe, and tasty," as he establishes and takes part in the environmental conditions in which the plants are grown.

Looking back to our time together, Jack prioritized method rather than theory during training days, as he wanted me to undergo what Tim Ingold calls an 'education of attention.' From the first day, Jack wanted me to surrender to the training and in-habit the situation to understand what escapes standardization, legalization, and the contest criteria. Dwelling in the garden with Jack and the plants, allowed me to be affected educationally and beneficially. Taking part in the activities allowed me to reflect on my biases and appreciate Jack's gardening skills. As a result, I learned to listen and pay attention to what he was trying to demonstrate to me. Julie Laplante writes that how we pay attention or listen differs as "We can listen to identify isolated sounds or bits of information or we can listen meaningfully to tone, speed and slowness, rhythms in transformative manners" (Laplante 2021, 36-37). In the first way we want count, control, abstract, or measure a situation as I did at the beginning of the grow cup (Laplante 2021, 37). In the second way we can "surrender, let ourselves be disoriented, and in-habit a situation to get a sense of what it (un)does" (Laplante 2021, 37), for example being 'caught' by aromas or looking for powdery mildew (Laplante 2021, 37). Laplante argues that "while both paths of listening require attention, it is not the same kind of attention, and what we learn will differ" (Laplante 2021, 37).

Certainly, surrendering to the moments with Jack in the garden allowed me to let go of my student preoccupation with data gathering. As a result, I learned (1) how Jack's way of knowing/sensing cannabis escapes standardization and (2) new skills. Tim Ingold writes that “understanding in practice is a process of enskilment” (Ingold 2000, 416). Ingold argues that skills are not passed down from generation to generation. Instead, they are regrown as they become part of us since once we grasp the skill from our very own being (as it were from the inside), we can dispense with them. Therefore, learning to grow cannabis for the grow cup was not about taking 'action upon nature.' Instead, it was about growing plants both by abiding and by dispensing standardization and the context criteria. So, when I noticed the Pineapple Express holding on to dear life, I knew I had to give it a chance by trying to apply all that I had learned. As a result, I was able to successfully harvest it. My capability to turn it around and apply what I learned in practice is a clear example that we (humans) do not only learn from acquired knowledge but that we also learn from doing and dwelling in the world.

Jack's comment about the Pineapple Express being stunted in height because of all the stress it went through made me reflect on growing up, which I think is important to say a few words about. While most humans come into being in the world through our mothers, the environment in which our growing happens is not the same. Some have better luck than others, and this influences our overall health and growth as humans. For example, living through the pandemic desensitized me from the world I dwell in, which made me numb and dumb to the simplest things, such as following a consistent light/dark cycle. Looking back, the plant reflected my own state of being. I looked and felt tired, sluggish, pale, and dehydrated because the environment I was growing and maturing was asphyxiating my whole organic being. While I was comfortable and privileged to work and study from home during the pandemic, being indoors for a year affected my growth and maturity in many ways. Yet, despite sleeping late and waking up late, the sun and the annoying screaming seagulls near the garbage bin would wake me up when my immediate environment felt like a prison sentence. While it may seem like everything has been objectified and commodified, including our bodies, plants, and animals, we are not objects. Living bodies, as Ingold puts it, “are never made but always in the making, and their specific expertise is not added on, in the form of a motor schema internalized into a body naturally primed

with the capacities to receive it, but is itself the developmental outcome of what Downey calls 'kinetic self exploration'" (Ingold 2013, 8-9). So, as Jack taught me, it is not only about pushing against/back, resisting, or being indifferent, but it is also about finding meaning in our actions as we can move in the world with judgment and dexterity.

Chapter 5: Curing Cannabis and Grow Cup Results

On November 10, 2021 Jack invited me over to 'burp' the cannabis he harvested for the grow cup and to show me his indoor set up. I arrived to his home around 3:00 pm and knocked on the front door. Jack greeted me with excitement and led me to his dining room where he was boiling some tea for us.

Jack: How do you like your tea?

Nina: Black is fine.

Jack: I can't wait to show you downstairs! The indoor set up is ready for the winter crop.

Jack placed the kettle and two tea cups on the table and ask me to follow him to the basement.

Jack: Are you ready to burp some buds? It is a time consuming task, it's my least favourite thing to do, but it is necessary!

Jack's basement has a separate room where he is keeping his indoor set up and curing station. When we enter the room there are about 40 jars of cannabis, all different sizes, on the floor.

Jack: It's a lot right?

Nina: Yea, is this all from this years harvest?

Jack: Yes, except for a few of the jars in the back they are from last year. Let's open them up and then I will show you inside the grow tent.

Jack and I got on our knees and started to take the lids off each jar. As I opened each jar, I brought it close to my face to smell it.

Nina: The smell is very subtle, is that normal?

Jack: Yes, as the buds cure the aromas will become more present. Burping is really letting any left over moisture be released from the buds. You want to have about 55-60 percent humidity in your buds. It depends the kind of grower you are when it comes to burping period and overall curing time. Since all of this will be edibles I do it for three weeks. After that I do a test try and if it burns good then its ready.

Nina: Once it is ready how long can you keep it for?

Jack: It depends how you use it and how you store it. I use humidity packs in my jars so I know they will be good for a while. I will occasionally burp them if I have not opened them.

We got up from the floor and headed over to the tent. He invested in a very nice set up with a 4x4 tent and an automated light and ventilation system with a carbon filter.

Jack: what do you think?

Nina: It's very nice, much more sophisticated than my set up, haha.

Jack: Well, I had to invest in the equipment, but I am financially comfortable so I can do it. Some people may say it is too much, but it's what I like. I don't mind having holes in my socks, I will be fine. But, this is my hobby. The plants keep me busy, so I don't mind spending money on them.

Unpacking Curing

Jack and I closed up all the jars we had opened and returned to the dining table to drink the tea he had made for us and chat a little. I asked Jack how he felt now that the grow cup was over. He told me that he was excited to grow indoors, but there is always a little normal 'depression' after harvesting. I asked him what he meant by his comment, and he said that giving the plants so much attention drains him, but knowing that the next seed will present its own challenge keeps the excitement going to continue growing. While I understood that growing for Jack was a process of going along and enjoying it, it seemed to me that the curing process for Jack was more of a burden than an art/craft. So without hesitation, I asked him why the curing process seemed a burden or not as important as caring for the plants. Jack looked at me with a stare of 'here we go again,' he took a moment of silence and a sip of tea before answering.

Jack: It is not that I do not care about curing. Curing is as important as growth. That is why I do not skip curing, as both processes require attention. You need to use your senses to determine what needs to be done. Curing cannabis comes down to respecting that the plant first goes through metabolic changes, which will require close attention and time. Some growers like to use hygrometers because they can know the moisture level and make decisions from that information. However, I do not use hygrometers inside the jars. It is not bad if your interest is in smoking it, but I don't really smoke what I grow. Don't get me wrong, I ensure that the room where they are stored stays at the correct temperature. However, I make oils, edibles, creams, and whatever else. That is why I do not stress about curing to perfection, as other growers might stress. If I want perfectly cured buds, I can just get them from the cannabis store. Again, I don't want to sound like a cannabis snob, but the products from micro-cultivators are great. I understand that the price may be uncomfortable to some people because, at the end of the day, it is all just weed, but when you know, it's like buying or finding an excellent fine wine. That is why I stay away from industrial cannabis. Who wants that? I know it's 'value,' but it is horrible! You are better off growing your own. At least you know it hasn't been radiated.

Jack and I never talked about his medical condition. However, all the plants he grows, including the ones for the grow cup, are used for medicinal purposes. Therefore, he is not caught up in the 'hype' of shaping his methods to achieve a percentage number per the contest criteria. In addition, having access to legal craft cannabis allows him to focus on other things, such as the micro bacteria in soil, as he does not have to go through the process of manicuring the buds. For Jack, the legalization of cannabis allows him access to nicely manicured craft buds like the one's on the cover of High Times magazine, which he appreciates. So, he does not stress about following 'best practices,' as he is indifferent to them because he cultivates cannabis for personal medicinal use. Hence, he emphasizes growing “clean, safe, and tasty plants”. While it seemed to me, at the moment, that Jack did not care about curing, looking back now, I can appreciate his approach to curing as he uses the plant for its versatility.

Grow Cup Results

Jack received his results from the lab at the end of November. Here are the results:

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			19.385	193.848
Total CBD [(CBDA x 0.877) + CBD]			0.069	0.685
THCA-A	0.0090	0.03	21.47	214.697
CBGA	0.0041	0.03	1.245	12.448
D9-THC	0.0093	0.03	0.556	5.559
CBDA	0.0100	0.03	0.078	0.781
CBG	0.0094	0.03	0.075	0.746
CBC	0.0060	0.03	ND	ND
D8-THC	0.0137	0.03	ND	ND
THCV	0.0093	0.03	ND	ND
CBN	0.0067	0.03	ND	ND
CBD	0.0069	0.03	ND	ND
CBDV	0.0090	0.03	ND	ND
Total of all quantified cannabinoids:			23.423	234.231

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Trans-Caryophyllene	0.0002	0.005	1.027
Farnesene*	0.0009	0.005	0.844
Alpha-Humulene	0.0010	0.005	0.23
(R)-(+)-Limonene	0.0001	0.005	0.216
Terpinolene	0.0003	0.005	0.189
alpha-Bisabolol	0.0003	0.005	0.112
Ocimene*	0.0004	0.005	0.066
Beta-Myrcene	0.0003	0.005	0.06
Linalool	0.0003	0.005	0.051
Beta-Pinene	0.0002	0.005	0.042
Terpineol*	0.0001	0.005	0.031

Abbreviations: wt% = percentage of weight, CFU = colony forming units, ppm = Parts per million, ppb = Parts per billion, ND = None Detected, BLQ = Below Limit of Quantification, LOQ = Limit of Quantification, LOD = Limit of Detection, RL = Reporting Limit, * = Mixture of Isomers

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Alpha-Pinene	0.0003	0.005	0.031
Alpha-Phellandrene	0.0002	0.005	0.027
(R)-Endo-(+)-Fenchyl	0.0003	0.005	0.024
trans-Nerolidol	0.0004	0.005	0.022
Caryophyllene oxide	0.0008	0.005	0.014
Alpha-Terpinene	0.0003	0.005	0.01
(1S)-3-Carene	0.0007	0.005	0.009
Eucalyptol	0.0007	0.005	0.007
Gamma-Terpinene	0.0003	0.005	0.006
Camphene	0.0002	0.005	0.005
Citronellol	0.0003	0.005	BLQ
Sabinene Hydrate	0.0001	0.005	BLQ
Sabinene	0.0013	0.005	BLQ
Fenchone*	0.0003	0.005	BLQ
p-Cymene	0.0003	0.005	BLQ
Phytol*	0.0013	0.010	ND
(+)-Cedrol	0.0010	0.005	ND
Guaiol	0.0003	0.005	ND
cis-Nerolidol	0.0003	0.005	ND
Valencene	0.0002	0.005	ND
Eugenol	0.0004	0.010	ND
Alpha-Cedrene	0.0002	0.005	ND
Pulegone	0.0002	0.005	ND
Geranyl acetate	0.0002	0.005	ND
Nerol	0.0002	0.005	ND
Geraniol	0.0007	0.005	ND
Camphor + Borneol*	0.0003	0.010	ND
Hexahydrothymol	0.0005	0.005	ND
Isoborneol	0.0002	0.005	ND
Isopulegol	0.0004	0.005	ND
Total of all quantified terpenes:			3.023

Abbreviations: wt% = percentage of weight, CFU = colony forming units, ppm = Parts per million, ppb = Parts per billion, ND = None Detected, BLQ = Below Limit of Quantification, LOQ = Limit of Quantification, LOD = Limit of Detection, RL = Reporting Limit, * = Mixture of Isomers

When Jack received his results, he was happy to see that he had received a high terpene percentage. This confirmed to him that he had “dialed down” on the right soil recipe and could now move on to more advanced soil mixtures. However, he was upset that he did not win for terpenes as he hit a total of 3.023 percent and THC 19.385. He was definitely among the highest terpene contenders but did not win. Nonetheless, he was happy with the results. Interestingly, the person with the highest terpene percentage at 5.70% had a THC percentage of 14%. They also did not win any prizes, demonstrating that high THC percentage outweighs terpene percentages and all other molecules/terpenes tested at the lab and contribute to the plants’ entourage effect.

Jack told me that all dry cannabis products in the recreational and medical market are tested for all terpene and cannabinoid content, similar to the cannabis cup. However, everything else gets dismissed due to the standardization of cannabis following THC and CBD percentages as metrics to understand the potential ‘effects.’ Nevertheless, some companies are starting to share all terpene and cannabinoid content on their product labels as they acknowledge that the information that gets dismissed with standardization is helpful to experience connoisseurs like Jack.

Interlude: Taste Test

Jack and I never smoked together. We had a professional relationship from the start, and he was always very respectful to me. However, research is research, and when his Pineapple Express was ready, he gifted me some to try. Jack asked me to do a "little" review for the thesis. So, here it is:

November 20, 2021,

It is 5:30 pm, and I will try the Pineapple Express. The bud is a lovely bright green colour. It is 'fluffy' (not compact), with a little sticky bounce. It has a few noticeable trichomes and it smells citrusy-sweet. The aromas are definitely more present than when I last smelled them in the jar. I take a bud apart and place it on the grinder. The grip is excellent on the grinder, which means that some moisture is left on the buds. I open the grinder and pour the herb onto the rolling tray. It keeps its fluffiness once grounded, and the tropical notes come forward. The smell is much more noticeable but not pungent. I take a piece of rolling paper and evenly distribute the herb with my fingers. I press down with a poke stick creating a little "taco" form that aids when you slide the paper back and forth to roll/form a joint. The herb is sticky enough that it makes the rolling experience easy. I twist the top of the joint and make a filter out of cardboard to insert at the bottom. I then "pop the top," which means burning the joint's top edges, creating an even herb wall to take the first 'hit.' I take a deep breath to allow air to run through my body, exhale, and insert the joint between my lips and spark the lighter. Upon inhalation, there is no harshness to the smoke. It's actually very light and smooth. I first tasted a pine flavour that quickly turns into a sweet-citrusy flavour. I have never smoked weed this smooth. At exhale, as the smoke leaves the mouth, I get hints of pineapple in the back of the mouth, and it quickly disappears. I take a few more hits, and as the ash builds up, the colour is a light-medium grey. I ash out the joint and sit with it for a couple of minutes... I feel a sense of clarity, and the tension on my shoulders seems to have reduced. I don't feel lazy, sleepy, or hungry. Instead, I feel like I can do some chores around the house or read a book.

Chapter 6: THCmania

Months after the grow cup was over, I met the grow cup winner through online direct messaging. He told me that the grow cup was his first real experience growing cannabis in a serious, competitive, and fun way. I disclosed to him that I was a student who also participated in the grow cup as a part of my master's project. Spicy_lettuce expressed excitement and curiosity about what I was doing and agreed to an interview. The following discussion was held over the phone and transcribed. While some things escape the interview, I found it essential to add to the thesis as it demonstrates and supports my observations regarding a new phenomenon that is rising post-legalization.

Interview With Grow Cup Winner

Nina: What made you enter the first legal grow cup?

Spicy_lettuce: I use cannabis for medical purposes, and before 34 Street Seed Co, the chances of finding legal seeds were zero. So when I saw the 34 Street Seed genetics, I knew the tournament would be fun. I went in with no expectations. It was more to meet other growers and improve my skill set. And it was great! I met many passionate people, and I think it's going to get better. I do have to say that before I found out about the tournament, I had stocked up on seeds and started pheno-hunting. I think that's what gave me an advantage. It was really my first time growing seriously.

Overall, I enjoyed participating in the grow cup. I met growers that were more passionate than I was. It has been challenging because I have been learning so much, but it's all good. I even connected with your mentor, and he is excellent. I keep learning about this fantastic plant every day. I also loved the opportunity to see the terpene percentage and cannabinoids. I know it is an expensive process. So, for them to do that shows that they care about the people and want the people to get passionate about growing.

Nina: How were you able to achieve high THC?

Spicy_lettuce: So, I created an ideal environment for my plants to grow. I used a lot of worms casting tea that I made myself to keep the microbial life going. But, realistically, it was just envi-

ronment, environment, environment, and staying organic ... and then maybe in the end throwing a little bit of advanced nutrient overdrive into the picture, jeje.

I grew indoors in a 3x3 grow tent, two Mars LED lights, the humidity was always around 55, and I ensured an excellent airflow with several fans. In the end, it probably did not matter because I opened the tent often to monitor the environment. I really don't know how I was able to get those high numbers. I just tried things and focused on the environment.

Nina: Can you tell me about the results you received and how they contrast (or not) to your experience with growing the plant?

Spicy_lettuce: I grew the Pink Lemonade; my THC percentages returned at 28.79%, and my terpenes returned at 2.61%. Due to a medical condition, I do not smoke. I actually make edibles, and they hit good. I gave my friends some buds for a taste test because they can smoke. They told me that it was good, but a bit too strong for their liking. They said it was a solid cerebral effect and caused one of them a slight headache. So, you see, THC is not everything. I am not complaining. I am happy that I won. I got some great prizes and free testing which is a couple of hundred bucks. I am just happy that the results can tell me what I can focus on more next time. It would have been nice to have higher terpenes, but I am not complaining.

Nina: Lastly, can you tell me about your experience/opinion about the legalization of cannabis in Canada?

Spicy_lettuce: The start of legalization was depressing for me because, as an individual who got their medical license through body stream, I thought I would be able to grow my dream strains from like High Times magazine, but that was not the case. The industry is still growing; there is a lot of room for improvement, but things are getting better each year. More items are available to the public, and prices are dropping, making cannabis more accessible. I would like to see a change in the number of plants you can grow. The energy of the harvest is offset by the government regulation over specific propagation totals, so if I wanted to cross genetics, I would have to

reserve two plants from the four for my total harvest. So, it leaves little room for error, which can be super depressing for an amateur grower. I wish I could grow big plants because cannabis should be shared among everyone. It should have never been illegal. It's a medicinal plant. I am happy with legalization, but there is much room for improvement.

Unpacking the Interview

34 Street Seed Co is the first seed brand to launch in Canada. While medical cannabis has been legal in Canada since 2001, medical home growers had to find their own seeds as the government did not provide any seed banks. Therefore, a mix of medical and non-medical growers participated in the grow cup as the seeds are available to both medical and recreational markets. Spicy_lettuce received his medical card via body stream medical cannabis clinic, which means that while he is considered a medical patient, he does not have an ACMPR card (like Jack) given by Health Canada. Hence, his concern is with the four-plant limit per household.

For Spicy_lettuce, growing cannabis also entailed attention to microbial life in the soil, enjoying the process, and dwelling with the plants. However, his approach to cultivating for the grow cup was different from Jack's as he tried products and techniques to meet the contest criteria. On the other hand, Jack brushed off the contest criteria for the grow cup as his attention was on the plant's overall health. Spicy_lettuce was not the only grow cup competitor that told me they tried things for the grow cup to meet the contest criteria. This indicates that standardization and the contest criteria are shaping cultivation practices focused on percentage numbers. This, according to Jack, is something 'new' as cannabis is not commonly known, among connoisseurs, for its molecular metrics. Hence, his frustration with the current conjoint legal, public health, and industry framework. Michael Pollan writing about underground grow cups in Amsterdam in the 1990s, mentions how "in the course of a two-hour panel discussion on marijuana growing, the subject of potency received relatively little attention" (Pollan 1995). Pollan comments that growers seemed more interested in other qualities such as taste, aesthetics, and variety. Throughout my time with Jack, the reduction of cannabis to single molecules was quickly criticized as Jack's life experiences with cannabis were not centred around quantifiable metrics (even for medicinal purposes). Instead, his relationship with cannabis is sensorial in the sense that attention is given to how a particular cultivar or terpene combination makes him feel. The terpenes were not only for pleasure (smell) but therapeutic as they affect the body. This way of knowing/sensing cannabis gets dismissed quickly with legalization/standardization. I argue that Knowing/sensing cannabis from dwelling with it allows for a more fruitful apprehension of the affective human-plant encounter.

End Note

Whether or not the cannabis cup winner won due to the use of nutrient overdrive, his 'testers' had an opinion of their own regarding the 'effect' of the cured buds. One of them expressed that they experienced "a little bit of a headache," which the cannabis cup winner associated with the THC percentage. While I can not speak about his buds since I only saw pictures, his comment, "So, you see, THC is not everything," is worthy of some attention.

Throughout the apprenticeship, Jack never discussed percentages with me, even though the percentage number was the winning criteria for the competition. This is because Jack understands that each cannabis seed/plant is different and that the care that goes into growing matters in their quality. In other words, the percentages do not matter in its quality because the plant's life cycle will determine the 'quality' and 'effect,' not percentage numbers. Therefore, paying attention to how the plants grow with care is crucial. Again, 'care' is not responding with emotion. Instead, it is the action (enskillment) of caring to avoid risk or damage by using the senses with attention.

While medical cannabis is legal in Canada, it is not yet a pharmaceutical. According to Hanus and Hod (2020) there are three main reasons, the first is fear and stigma, the second is lack of standardization since it is not a single-molecule drug plant, and third is that cannabis became legal and approved without standard clinical trials (Hanus, Hod 2020, 25). Yet, the current conjoined legal/ public health/ industry framework treat cannabis as a pharmaceutical. This way of 'knowing' cannabis may be valuable in business model of pharmaceuticals as it gives the consumer the necessary information about what is in the product (medicine made into a commodity) and its therapeutic effects (to avoid liability). However, how the product works or affects the body is never disclosed despite what is understood with the plant. By reducing cannabis to THC as the molecule related to "psychoactive effects" (psychedelic) and CBD to "non-psychoactive effects" (wellness) reinforce the mind/body dualism that is praised by the Western biomedical approach to understanding the human body as made up of separate mechanical organs, each with a function.

However, after the whole plant has been processed, the extraction and placement of information gathered about cannabis based on THC and CBD tell us little about it and its 'effects.' Instead, it suggests that since THC in isolation is understood to have "psychoactive effects," the more or less you have of it (in isolation) will determine the intensities of the effects. In isolation, THC becomes a metric on a scale in which intensities can be understood based on a percentage number but not the actual way it will be lived and felt. The actual way the 'effect' is lived and felt escapes standardization. The problem with this way of knowing cannabis is that the whole dry flower gets dismissed (what people actually consume and which has aromas and tastes). Yet, the information about THC/CBD does something. It reduces complexity by breaking it down into digestible information as if the molecules and terpenes in cannabis are separate. My criticism about this way of 'knowing' cannabis is that all the other 100+ molecules in cannabis and terpenes are dismissed. Perhaps a study that takes the senses (with a focus on smell and taste) and the 'entourage effect' seriously could open opportunities to know/sense cannabis beyond standardization which is reducing complexity and giving rise to a new phenomenon.

As explored throughout the thesis, a skilled home grower knows/senses cannabis by actively engaging with it through its growth process by attuning attention to its development, dwelling with it in its process of growth to maturity. As a result, the contest criteria did not constrain/reflect Jack's way of knowing/sensing cannabis, as the contest criteria were limited to the conjoint legal, public health, and industry framework. So, while Jack was not "caught up" in producing the numbers, he was 'caught' in a correspondent relation with the plant. He was becoming-plant, not in a literal sense, but allowed things to emerge in-between through his involvement in the process of growing cannabis (affecting and letting himself be affected, transformed i.e. as per Favret-Saada). Although the cannabis cup was not what I expected it to be, it did provide the grounds for further inquiry regarding the current legislative framework of the conjoined legal, public health, and industry framework as profiled in the contest criteria. Canada legalized recreational cannabis because it would protect young Canadians by keeping the plant out of the hands of children and youth, keeping profit out of the hands of criminals, and protecting public health and safety by decreasing the risk and reducing the potential damages surrounding cannabis. Yet, with such harsh regulatory measures, a new phenomenon is rising; THCmania,

the rush to produce the highest THC percentage in dry cannabis flowers, shaping cultivation practices for the legal recreational market.

‘Future Work’

Cannabis has contributed \$43.4 billion to Canada’s gross domestic product and \$13.3 billion to Ontario’s since cannabis for recreational purposes was legalized in October 2018 (The Canadian Press, 2022²³). The OCS (Ontario Cannabis Store) reported that “54.2 percent of the cannabis purchases made in the province between July and September 2021 were linked to legal retailers” (The Canadian Press, 2021²⁴), demonstrating that Ontario has minimized the illicit market by lowering prices and making cannabis accessible. While the sale of legal cannabis is achieving the goal of reducing criminal activity from the black market, the current legal and standardization framework is giving rise to a new phenomenon by shaping cultivation practices focused on high THC levels, as I explored through this thesis. This is a recent phenomenon because the industry must follow the harsh legislative and public health framework, which reduces the plant to its molecular compounds. As a result, they use these metrics to market and brand their products.

According to the current literature regarding THC development in cannabis plants, the biological upper limit is approximately 30%, and often these estimates are inaccurate (Pusiak et al., 2021, 3). Yet, there are products currently available in the recreational market labelled with THC levels higher than 30%. This is concerning as it is not yet understood (scientifically²⁵) how cannabis affects the body as the plant seems to escape Randomized Clinical Trials²⁶. THC and CBD are the most studied cannabinoids: they possess therapeutic potential, with preliminary and advanced empirical evidence regarding a wide range of diseases. These substances (in isolation

²³ The Canadian Press. (2022, February 1). Cannabis has added \$43.5B to Canada’s economy since legalization: report. Global News. Retrieved from <https://globalnews.ca/news/8585983/cannabis-canada-economy-legalization-report/>

²⁴ The Canadian Press. (2021, December 16). Legal cannabis sales overtake illicit market for 1st time in Ontario: OCS. CBC News. Retrieved from <https://www.cbc.ca/news/canada/toronto/legal-cannabis-over-takes-illicit-market-ocs-1.6288105>

²⁵ As whole plant derived cannabis products have a complex and undefined pharmacology. This concern is also raised by Dr. James Mackillop- director at the Michael G. DeGroot Centre for Medicinal Cannabis Research at McMaster University in Hamilton, Ontario. Who urges for more clinical trials on whole derived cannabis products. <https://www.cbc.ca/radio/thecurrent/the-current-for-may-11-2021-1.6021707/tuesday-may-11-2021-full-text-transcript-1.6022926>

²⁶ By ‘escape’ I do mean whole plant derived cannabis products.

and high concentration) may have adverse health effects²⁷. In addition, there are currently no expiration dates labelled on dry flower products, which is concerning as cannabis continues to metabolically break down after it has been cured. Finally, while there is a standard for labelling cannabis products from the federal government and Health Canada, cannabis companies have recently started to add the terpenes and molecules that are dismissed in standardization, but are tested at the lab. As one person put it during a craft cannabis industry event I attended in the fall of 2021 “the lab test for all cannabinoids, so why should the information be hidden?” While there is industry resistance to standardization of cannabis based on THC and CBD. The use of information that escapes standardization in cannabis packing makes it difficult for people to understand labelling and the product. Yet, it facilitates ‘knowing’ the product as experienced cannabis connoisseurs, like Jack, can determine what will sit well with them based on all the information available. Therefore, a revision of the legalization/standardization of recreational cannabis is crucial.

As I demonstrated in this thesis, a skilled home grower knows/senses cannabis by actively engaging and sharing the environment where the plants' growth to maturation occurs. While THC and terpene profile percentages can help know cannabis, a skilled home grower knows/senses cannabis from living close to the plants and can appreciate the "quality" of dry flowers based on sensorial engagement; for instance, getting to know how terpene combinations (mixed with CBD and THC) may affect differently in context. Also, a skilled home grower/ connoisseur can identify the dry flowers' quality from how they burn; i.e. light grey, indicating that the plant was cured correctly for human consumption. By situating myself as an apprentice, I learned from going along, which involved enskillment and dispensing the contest-winning criteria to understand how Jack understood growing cannabis for the competition. Taking this methodological approach allowed me to notice all which escapes standardization/legalization and thus express how the focus on single-molecule measurements overshadows other ways of knowing cannabis. Therefore, a study that engages the senses to understand the 'entourage effect' can open opportunities to know/sense cannabis beyond standardization which is reducing complexity and shaping

²⁷ Watch, Cannabis and the Heart, April 18, 2019. Video lecture by Dr.Oh. <https://youtu.be/QYCKVjdg-DqQ>

cultivation practices based on single molecule percentage numbers.

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