Magic, Money, and Mu(shrooms):

On the Psychedelic Industry, Environmental Crisis, and Indigenous Territories

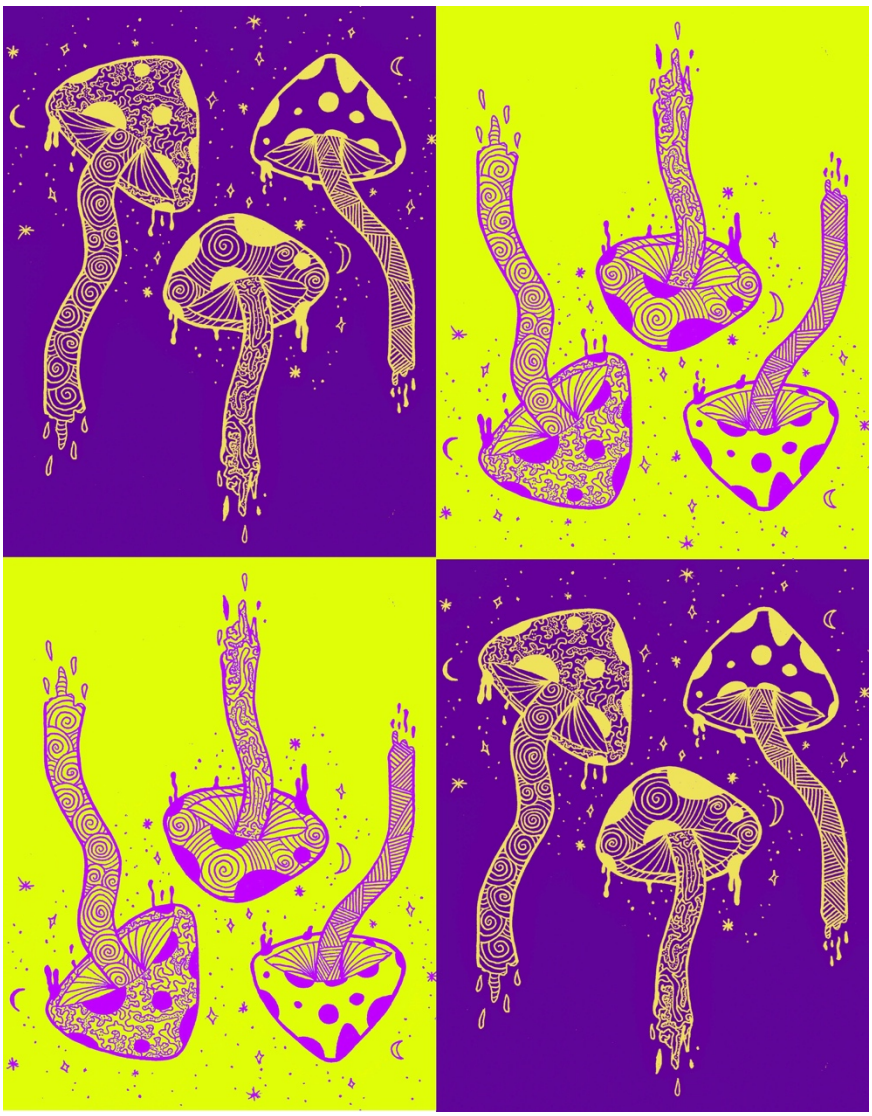

Illustration by author

Degree of Master of Science (Two Years) in Human Ecology: Culture, Power and Sustainability, 30 ECTS

CPS: International Master's Programme in Human Ecology
Human Ecology Division
Department of Human Geography
Faculty of Social Sciences
Lund University

Author: Ellen Julia Amanda Månsson
Supervisor: Thomas Malm
Term: Spring 2021

Department:	Department of Human Geography
Address:	Geocentrum 1, Sölvegatan 10, Lund
Telephone:	+46 46 222 17 59

Supervisor:	Thomas Malm

Title and Subtitle:	Magic, Money, and Mu(shrooms): On the Psychedelic Industry, Environmental Crisis, and Indigenous Territories
Author:	Ellen Julia Amanda Månsson
Examination:	Master's Thesis (Two year)

Term:	Spring term 2021

Abstract

As the environmental crisis intensifies humans are searching in many corners of the world for solutions and actions to take on both a political, economic, and social level. In recent years, psychedelics have been brought forward in Western academia as a potential way of (re-)connecting humans with nature and foster pro-environmental behaviour. Using online, semi-structured interviews with researchers and psychedelic users, this thesis departs from this literature and critically engages with the global spread of psychedelics and ideas around them as tools in the environmental crisis that has followed in popular media. Main findings include that psychedelics may be understood as nature-connecting agents on an individual level, which can simultaneously be seen as a potential benefit for the biosphere at large, whilst feeding into an individualisation of environmental responsibility in favour of corporations and capitalism. Further, the global spread of psychedelics has contributed to the emergence of a psychedelic industry and the commodification of psychedelics in the global North, which is impacting Indigenous groups, territories, and ecosystems negatively. By engaging with theories from Human Ecology and Ecopsychology, this thesis concludes that understanding psychedelics as a solution to the environmental crisis offers a distorted interpretation of both causes and solutions for said crisis, individualising environmental responsibility and displacing attention from corporations and the overarching political economy of environmental degradation.

Keywords: Human Ecology; Psychedelics; Environmental Crisis; Human-Nature Connectedness; Capitalism; Indigenous Knowledges; Ecopsychology

Acknowledgements

I wish to begin with a series of special mentions of people who have been crucial for the process of me finishing this thesis. I am sincerely grateful to all of you. To my supervisor Thomas Malm for guidance, encouragement, and staying curious about topics you are otherwise not familiar with. To all CPS comrades—students and staff—but especially my thesis supervision group for your comments, feedback, and encouragement. I acknowledge that this is a collective effort! To my family, in particular my sister for your unconditional love and support, and all my friends for always encouraging and showing up for me. I love you all. A special thanks to Katrine for always having my back, reading, and commenting on my text; Andrew for your luminescent, beautiful, and inspiring energy and our many conversations about everything in between earth and space; Eva for our interesting—equally deep and philosophical as superfluous and sensuously flamboyant—conversations in both reality and hyper-reality; and Jesper and Jakub, for feeding me (almost) every Friday, providing me with a necessary break from writing.

My deepest gratitude to Diana Negrín, Sam Gandy, David Luke, Brian Pace, and my two informants Kim and Alex, for sharing your knowledge and experiences with me. To *nature*, in all your forms, I want to say: thank you for teaching me and allowing me to breathe and break, thus helping me to stay sane through this process. With this thesis, I vow to stay committed to you with respect, always.

Lastly, I am eternally thankful to you Clara, my partner in crime, for always believing in me, supporting me through good and bad times and being the radiant, intelligent, self-reflexive, and beautiful human being you are. I could not—and would not—have done this (or many other things in life) without you.

Table of Contents

List of Figures

Chapter 1: Introduction

When I was 18-years old, I read my first trip report. The trip report was not a detailed review of someone's vacation to Buenos Aires or Prague, but someone describing their first ayahuasca trip. Ayahuasca, I learned, is a psychoactive brew typically made using the liana *Banisteriopsis caapi* together with leaves from *Psychotria viridis* or *Diplopterys cabrerana*, where the latter two contains the psychoactive substance DMT (Feeney et al. 2018). The trip report described how a person—we can call them Sal—had travelled to somewhere in South America to participate in an ayahuasca ceremony. I remember reading about how Sal had been out in the jungle with a Shaman and a few other people, ingested ayahuasca, got lost in the jungle, vomited a lot, visualised a lot of things, believed they were going to die at one point, but eventually came back down to themselves with a newfound perspective on life, the planet, and nature. Sal's trip report was my first encounter with psychedelic substances, and it has stayed with me ever since. As I was scrolling through Instagram in November 2020 the trip report found its way to my consciousness again as my newfound favourite comedian, Jordan Firstman, was interviewed by *Dazed Digital* asking the question "what would you do if you were president for a day?" (Dazed Digital 2020). Jordan Firstman answered: "If I were president for a day (…) I would make sure that everybody in the United States woke up and immediately did a lot of ayahuasca" (ibid). My interest in what this psychoactive brew was capable of sparked once again.

As I embarked on an online journey, it dawned upon me that it is generally considered that the Western world[1] is currently amid a psychedelic renaissance (George et al. 2019). Additionally, it seemed as if psychedelics were gaining discursive popularity as a potential way to heal or even save the world especially in popular media. In various media outlets people were discussing and writing about in particular the findings of one paper: *From Egoism to Ecoism: Psychedelics Increase Nature Relatedness in a State-Mediated and Context-Dependent Manner* (Kettner et al. 2019). The paper presented the first causal perspective change for an increase of human-nature connectedness after a psychedelic experience in a large, healthy sample (N=654). Proceeding my online journey, headlines such as "could psychedelics help us resolve the climate crisis?" (Adams 2020) and "psychedelics for systems change: could drugs

[1]I acknowledge that this is a disputed term and in this thesis it rests on decolonial literature on the creation of a Western civilization through the project of a colonial/modern world-system (cf. Mignolo 2011) (elaborated on in chapter 5).

help us save the planet?" (Peck 2020) continued to pop up on my screen. In some articles, authors were even going so far as to say that psychedelic usage may very well have "contributed to the impetus of modern ecology movements" (ibid). The recollection of Sal's life-changing experiences occurred in my mind. Could this research be related to the newfound perspectives Sal's ayahuasca trip report had been hinting at? My questions were many. How can ingesting a plant brew or eating a fungus change the world? Is nature storing or even hiding knowledge unable for the human mind to grasp? Surely, there must be more to this story, I thought to myself.

1.1 Aim and Purpose

This thesis departs from the idea that psychedelics can aid us in resolving the environmental crisis and 'save the world'. I aim to analyse this stance by exploring the global spread of psychedelics and how that can simultaneously be seen as both a way of breaking with, as well as contributing to, the environmental crisis. More specifically, this is done through firstly analysing how psychedelics can be seen as 'nature-connecting agents' through ideas of interspecies thinking and ecopsychology. Lastly, I aim to critically engage with the commodification of psychedelics in the emerging psychedelic industry and its impact on Indigenous[2] territories and groups.

The purpose of this thesis is to contribute to a wider debate on ideas and seemingly simple solutions put forth to the environmental crisis and to shed light on the social and economic conditions—as well as material consequences—that underpin the global spread of psychedelics. Much research in Western academia focuses on therapeutic applications and benefits of psychedelics and less on what their mainstreaming and emerging industry might entail for both ecosystems and Indigenous groups. Additionally, Indigenous groups are increasingly questioning the commodification of psychedelics (cf. Negrín da Silva 2018; Feeney 2017) reaffirming the necessity of contextualising the psychedelic renaissance happening in the global North. Additionally, literature on psychedelics from a Human Ecology perspective is limited and in specific relation to the recent scholarship linking psychedelics

[2]Throughout this thesis, the word Indigenous is capitalised echoing Indigenous scholars like Alfred & Corntassel (2005), who recognise Indigenous as being an identity category rather than solely an adjective. Due to the scope of this assignment, as well as my positionality as a Western, non-Indigenous scholar, my attempt is not to define indigeneity, though I recognise that it is a contested and complex term as much as an identity, albeit of relevance for this thesis.

with human-nature relations (cf. Luke 2019; Nour et al. 2017) this thesis provides a necessary perspective and contribution contextualising said relations. Thus, through focusing on psychedelics as both nature-connecting agents, as well as exploring the dynamics of the development of a psychedelic industry, this thesis fills a gap in the existing literature on psychedelics.

1.2 Research Questions

The research questions guiding this thesis are thus:

1. In what ways can psychedelics be seen as 'nature-connecting agents'?
    - How can that be related to the wellbeing of the biosphere and environmental crisis at large?
2. What are some characteristics psychedelics take on as a commodity?
3. How is the global spread and commodification of psychedelics impacting Indigenous territories?

1.2.1 Disclaimer and Delineation

Seeing as psychedelic substances are illegal for most usage more or less globally[3] it is necessary to note that this thesis, under no circumstances, urges any recreational usage of such substances. Psychedelic research, clinical trials, and personal usage must be held under high scrutiny (cf. research from the Centre for Psychedelic Research at Imperial College London or Chacruna Institute for Psychedelic Plant Medicines) while still recognising the various cultural heritage, knowledges, and capacities existing in Indigenous communities globally. This thesis is not an attempt to present arguments for or against psychedelic usage but merely an exploration of dynamics and frictions of and within the Western psychedelic renaissance. This encompasses both personal use of psychedelics as well as the emergent psychedelic industry (including academic research). The intention is thus solely to explore the psychedelic renaissance's development in relation to concepts relevant to Human Ecology. Further, I wish to note already here that due to the limited scope of this thesis, I am not critically engaging with what 'nature' in human-nature connection entails beyond what emerges from the interviews. For relevant discussions on this topic, see for example William Cronon (1996) or Vogel (2015).

[3]With a few exceptions, albeit to varying degrees, such as the Netherlands, Jamaica, Brazil, some parts of the U.S. in particular Native American reservations, Peru, and Portugal (Jelsma & Armenita 2015).

1.3 Structure of the Thesis

This thesis is divided into eight chapters. Following the Introduction (chapter 1) including Aim, Purpose and Research Questions, a Background section (chapter 2) where, as a literature review—a brief overview of previous research—I contextualise this thesis. The next section presents the Philosophical Standpoint (chapter 3) that this thesis rests on followed by a Methods and Materials section (chapter 4). Next follows an overview of the Analytical and Theoretical framework (chapter 5) that this thesis utilises. Analysis and discussion of data are presented simultaneously split up in two sections: Chapter 6 answering RQ1 and Chapter 7 answering RQ2 and RQ3 in critical engagement with Chapter 6. The thesis ends with a concluding section (chapter 8) including answers to the research questions and contributions of this study.

Chapter 2: Background

2.1 Current State of the Environment and the Anthropocene

Recent environmental changes (environmental degradation such as global warming, species extinction, ecological degradation etc.) suggest that the planet—and living organisms on it—is amid an environmental crisis (WWF 2018). The current geological epoch is therefore referred to by many as the Anthropocene as it is argued that much environmental changes are largely induced by humans, and thus, that humans hold responsibility for the crisis (Crutzen 2006). Despite extensive scientific research, knowledge, and awareness of socio-ecological changes there is a lack of action to reduce the impacts and consequences of said crisis. Some experts and researchers argue that this could be due to a psychological disconnection from nature (cf. Ives et al. 2018; Evernden 1993). Psychological disconnection from nature essentially entails a lack of human environmental consciousness which, according to Sharma & Bansal (2013, 200), refers to "specific psychological factors related to individuals' propensity to engage in pro-environmental behaviours". Additionally, scholars argue that the human disconnection from nature is further exacerbated through the innate needs of capitalism to subjectify and exploit nature (and labour) to function (Foster 1999). The term Anthropocene is therefore also criticised for derailing the focus from political-economic structures (Malm & Hornborg 2014). Here, the reason behind the environmental crisis is not understood to be a psychological disconnection from nature but rather a result of overarching capitalist structures of environmental degradation. Thus, different ideas regarding the causes and effects of the environmental crisis exist and are engaged with in this thesis.

2.2 What are (Classic) Psychedelics?

In 1956 Aldous Huxley[4] wrote to Humphry Osmond[5]:

> *To make this mundane world sublime,*
>
> *Take half a gram of phanerothyme.*

To which Humphry Osmond replied:

> *To fathom Hell or soar angelic,*
>
> *Just take a pinch of psychedelic* (Tanne 2004, 713).

The word 'psychedelic' stems from the Greek words *psykhē* ("mind") and *dēloun* ("make visible"), thus meaning "mind-manifesting" or "mind-expanding" (Aixalà et al. 2018, 2304). In Western research, the substances generally considered classic psychedelics are Psilocybin (the active ingredient of psilocybe "magic" mushrooms), DMT (the active ingredient of entheogenic brew ayahuasca), Mescaline (occurring in mescaline cacti) and LSD *lysergic acid diethylamide* (derived from ergot fungus) (Nour et al. 2017). Moving forward, 'psychedelics' refers to ayahuasca, psilocybe mushrooms, and mescaline cacti as these are the plant versions and have ties to Indigenous groups relevant for this thesis[6]. It is in the cognitive and hallucinogenic effects of these substances that the mind-expanding 'psychedelic experience' lies characterised by psychological, behavioural, and cognitive effects (Jungaberle et al. 2018). Additionally, psychedelics are known to facilitate an ego dissolution (Lebedev et al. 2016), accompanied by an increase of connectedness both between different areas of the brain (see

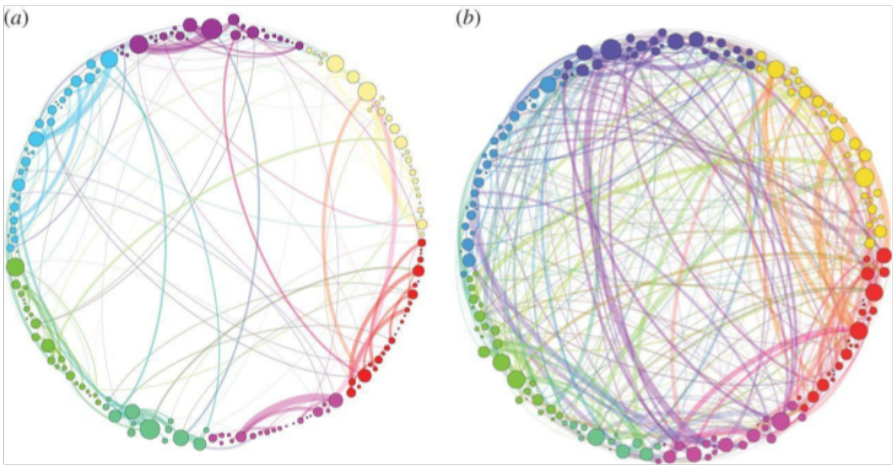

Figure 1: ***Homological Scaffolds of brain functional networks*** **(Petri et al. 2014, 8) (CC BY-SA 4.0)**

Simplified visualisation of the brain connectivity patterns of a person given psilocybin (b) and the brain connectivity patterns of a person given intravenous infusions of placebo (a).

[4]English writer, philosopher and one of the first people in the Western world to try mescaline together with Osmond in 1953.
[5]English psychiatrist researching psychedelics for therapeutic and medical use.
[6]I realise that grouping these together as 'psychedelics' is arguably a broad generalisation and will be contextualised when necessary.

Figure 1), as well as connectedness to something larger than oneself such as nature, oneness, and unity (Erritzoe et al. 2018). Most importantly, what can be known about psychedelics may seem unexplainable to some. As this thesis proceeds, I ask the reader to be equally open towards neuropsychological effects of psychedelics as to cultural, mystical, and healing characteristics of the psychedelic experience.

2.3 Indigenous Peoples and Psychedelics

Usage of psychedelics is not a new phenomenon as they have been used since time immemorial for cultural, healing, sacramental, and spiritual reasons by Indigenous peoples around the world mainly in the Americas, Africa, and Asia (Labate and Cavnar 2018) but even some places in Europe (Aaronson 1970). Seeing as there exists a broad diversity of Indigenous groups with ties to various psychoactive plants, what follows is not an extensive list but a few examples. Ayahuasca is used mainly for spiritual practices—including Shamanism—by various Indigenous peoples such as the Urinara (Dean 2009) or the Shipibo (Labate & Cavnar 2014) of the Peruvian Amazon. Psilocybe mushrooms are native to geographical territories almost worldwide and there exist around 200 known species of psilocybe mushrooms (Stamets 1996). Especially noticeable are their ties to the Mazatec people, an Indigenous people of Mexico, elaborated on below. Peyote has cultural, economic, sacramental, and ecological ties to the Huichol, or Wixáritari; an Indigenous people native to Mexico and some parts of the U.S. (Negrín da Silva 2018). Notably, a large variety of usage, knowledge, and cultures around psychedelics exist. Even the term ‘psychedelics’ is not universal but contextually specific and the various substances are alternatively referred to as medicinal plants; plant teachers; commodities; therapeutic tools etc. (Dev 2018). Due to the limited scope of this thesis the diverse usage of psychedelics by Indigenous peoples is not elaborated on however explored in relation to the psychedelic industry and ecosystems.

2.4 Psychedelics in a Western Context

In 1955, the U.S. American ethnobotanist and banker R. Gordon Wasson visited the hometown of María Sabina—a Mazatec *curandera* [one who knows]—and was the first Westerner to participate in a healing ritual using psilocybe mushrooms (Sabina & Wasson 1974). In 1957, *Life* magazine published the now renowned photo essay *Seeking the Magic Mushroom* describing Wasson’s experiences of participating in the ritual and ingesting psilocybin. Wasson also gathered spores of the mushroom and brought them back to Europe where it was later

synthesised by Swiss chemist Albert Hofmann in 1958 (Hofmann 2013). Based on these incidences the spread of psychedelics took off in the Western world, resulting in both the beginning of psychedelic research as well as widespread recreational usage of the substances in particular by the counterculture in the 1960s (Belouin & Henningfield 2018). The counterculture of the 60s developed throughout much of the Western world and was generally anti-establishment, thus posing a perceived threat to political stability by ruling parties (Roszak 1995). Alongside unfortunate choices of methodologies and lack of knowledge about set and setting[7] but despite promising therapeutic effects and low evidence for addictive or toxic traits, the Western psychedelic trip was short-lived. By 1971 psychedelic substances were prohibited worldwide and most of them classified as schedule I[8] drugs (Nutt et al. 2013) while allowing for some religious and sacramental usage to continue.

2.4.1 Psychedelic Renaissance

Fast forward a few decades of gradual political shifts and psychedelics are seeing an upswing in the 21st century partly due to what is increasingly referred to as a psychedelic renaissance in Western academia and the global North at large (cf. Pollan 2018). Research programmes targeting therapeutic and clinical supervision of psychedelics—and resurrection of experimental studies—are exhibiting promising results to a range of psychiatric disorders (Forstmann & Sagioglou 2017). Furthermore, research on the neurochemical effects of psychedelics (Petri et al. 2014) as well as benefits for treating for example PTSD, depression, addiction, and anxiety (Gasser et al. 2015; Krebs & Johansen 2012) is increasing. As is evident in Figure 2, the number of scientific articles published about—including therapeutic trials on—psychedelics has increased over the past decade. Additionally, over the last couple of years, research on psychedelics' ability to facilitate (long-term) increase in human-nature connectedness has emerged (Nour et al. 2017; Kettner et al. 2019). Based on this research, ideas around psychedelics as a potential tool for facilitating socio-ecological change has formed, especially in popular media (cf. Pollan 2018; Adams 2020; Peck 2020). It is argued that humans have become increasingly disconnected from nature through urbanisation, capitalist development, technology etc., and it is implied that healing the disconnection

[7]Referring to the physical, mental, social and environmental milieu that a person brings into an experience with psychedelics (Carhart-Harris et al. 2018).
[8]According to the UN definition, Schedule I drugs, substances, or chemicals are "substances said to pose a serious risk to public health which are not currently recognised by the Commission on Narcotic Drugs (CND) as having any therapeutic value" (Jelsma & Armenta 2015).

between nature and humans could aid planetary wellbeing at large. This is especially based on that increasing human-nature connectedness is a strong predictor of pro-environmental awareness and behaviour (Martin et al. 2020).

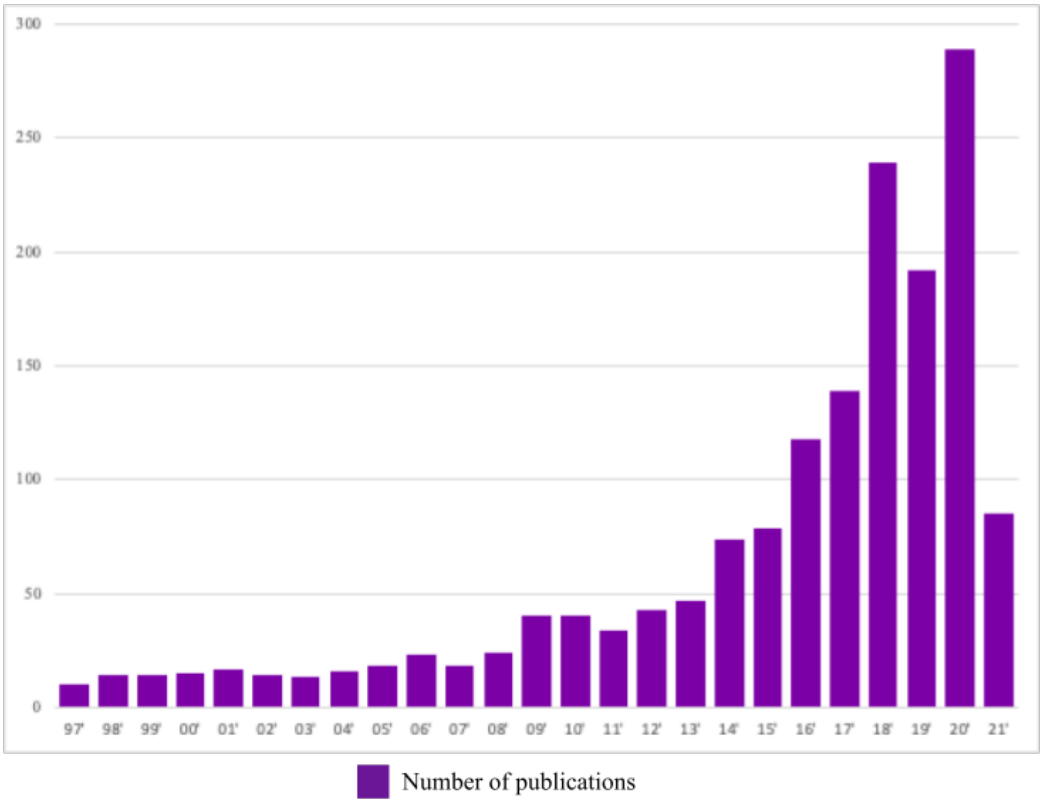

Figure 2: Timeline over Psychedelic Research Publications

Timeline illustrating number of publications on psychedelic research over the past 25 years, indicating the growing interest and focus on psychedelics in the 21st century. Data generated from the search result "psychedelics" through web of science 04/05/21 (own figure).

However, it is not solely within academia that the interest in psychedelics is increasing. On the 14th of October 2020, Bloomberg issued the press release *Multi-Billion-Dollar Market Forecast in Psychedelic Therapeutics* (Bloomberg 2020). Two of the corporations mentioned as key actors are Cybin Corp (CC)[9] and COMPASS Pathways (CP)[10] and in October 2020, CC closed a private placement offering with gross proceeds of $45 million CDN (Benzinga 2020). Additionally, perhaps the most illustrative example of the booming industry is the "largest-ever private financing round of $80 million for COMPASS Pathways (NASDAQ: CMPS), the first psychedelic company to IPO on the NASDAQ" (Bloomberg 2020), with a handful of other Western corporations looking to follow in their footsteps. The press release further states that "a new report notes that the psychedelics drug market is expected to total approximately $6.8

[9]A Canadian-based company developing psilocybin-based psychedelic pharmaceuticals and products
[10]UK-based psilocybin therapy and research company. The corporation received a post-IPO run-up valuation of $1.1 billion.

billion by 2027" (ibid). Lastly, clinical centres and retreats for psychedelics focusing on everything from healing personal trauma to leadership development and community connections (Austin 2019) are arising globally. This increase in 'spiritual tourism' or 'psychedelic tourism' has been highlighted by scholars (cf. Dev 2020; Laure Vidriales & Hannon Ovies 2018) as a way of reproducing coloniality and upholding neo-colonial structures, and there is a growing concern for the commodification of psychedelics and the emergence of a psychedelic industry (Hausfeld 2020). This thesis is situated within the frictions between the development of a Western psychedelic industry and Indigenous groups and territories, bringing together ideas of psychedelics as nature-connecting agents with a critique of the emerging industry using concepts of Human Ecology.

Chapter 3: Philosophy of Science

With this thesis I aim to take Indigenous philosophy seriously echoing scholars within the ontological turn (cf. Todd 2016; Whyte 2017; Kohn 2013). Indigenous ontologies understood as a joint term for ontologies of various Indigenous peoples of the world recognises three interacting worlds: the physical world, the human world, and the sacred world (Foley 2003, 46). More specifically, this entails an understanding that human-nature relations are dialectical through recognition of psychedelics' many potentials and connotations: as an experience; a commodity; a teacher; plant species, etc. As such, I view the knowledge of more-than-human entities not solely as symbolic; human-plant relationships can have actual effects on the world. Following this "knowledge is intimately embedded in how we relate to one another *and* the more-than-human-world" (Le Grange and Mika 2018, 499 own emphasis). Thus, this thesis rests on both political ecology (PE) and interspecies approaches to ontology and epistemology exploring ways in which nature, political economy, more-than-human entities, and humans are co-constituted and interlinked. This should be seen as a recognition of the insight that psychedelics have agency in two ways: both as plant teachers, as well as a way of organising social worlds through Marx's notion of fetishism elaborated in chapter 5.

More specifically, this is done through recognising the relationality between PE and Indigenous philosophy in alignment with the human-non-human dialectics position within PE (Robbins 2011, 94). This position recognises that things in the world—in this instance psychedelics—are not static but simultaneously ontological, as well as material, and both produced and reproduced politically and epistemologically. According to Ollman (1993, 11) this entails:

> Replacing the common-sense notion of "thing," as something that has a history and has an external connection with other things, with notions of a "process," which contains its history and possible futures, and "relations," which contains as part of what it is its ties with other relations.

Following this position of dialectics allows for a more complex and processual analysis of a phenomenon recognising that things transform through entanglement with other entities, relations, and processes. This position is thus fruitful to encompass the relations between humans and non-humans—including natural environments—both contain and are constituted with each other. Furthermore, it allows for a multi-sided analysis aligned with the purpose of this thesis to add academic nuance to the existing body of literature on psychedelics.

Chapter 4: Methods and Materials

Throughout my research, it became (almost painfully) clear that psychedelics are not just one easily defined thing and not tied to one single territory or societal group as there exist a variety of cultural, economic, ecological, scientific, and sacred aspects of them. They exist globally and for many, they can be plant teachers allowing the human consciousness access to the intelligence or mind of nature but for others, psychedelics are simply a fun experience. The methodological framework for this thesis is therefore based on the book *Friction: An Ethnography of Global Connection* by Anna Tsing (2005). Tsing writes that "global connections are everywhere. So how does one study the global?" and defines *friction* as the "awkward, unequal, unstable, and creative qualities of interconnection across difference" (ibid, 4). Friction can be seen as a metaphor for the diverse and contradictory interactions the contemporary world is made up of; exemplified here as the global connections of psychedelics. It is important to note that the global connections outlined in this thesis do not entail universality—quite the opposite. It is an attempt to move beyond simple truths such as claims of universality while acknowledging various cultural, sacred, economic, ecological etc. aspects of the interconnectedness of the world of psychedelics.

4.1 Data Material

4.1.1 Narrative Review and Supplementary Data

Before gathering my primary data, I initially embarked on an extensive narrative review with online ethnographical characteristics laying the groundwork for the choices of interviews. This was further an attempt to allow for the various stories and connections of psychedelics to

emerge from the data and minimise any theoretical preconceptions of me as a researcher—also referred to as taking an inductive approach to research (Bryman 2012). Further, a narrative review is suitable for inductive research as it allows the researcher to identify what is already known in connection with the chosen topic. This may then be used to provide the background for, and situate the research, as well as justify choices for further data collection. My motivation for taking a somewhat ethnographical approach to the narrative review was to allow for the inclusion of perspectives from online forums, discussions, and articles which are also used as supplementary data to the interviews. Considering the illegal status of many psychedelic substances worldwide the internet is a suitable forum for anonymous discussions and a variety of forums and discussions exist online. This data was essentially collected "using information and communication technologies to study perceptions, experiences or behaviours through their verbal or visual expressions, actions or writings" (Salmons 2016, 6). Apart from laying the groundwork for further data collection, some of this data is used to strengthen perspectives brought up in the interviews which is the primary data material for this thesis.

4.1.2 Interviews

The main data material for this thesis is qualitative, semi-structured interviews. In total I conducted six online interviews of which two were with psychedelic users living in Denmark, and four with researchers located in the U.S. (and Mexico)[11] and the UK. The geographical choices of these interviews should be seen as an attempt to accommodate the global focus of this thesis. The interviews were conducted over Zoom between the 10th of February and 10th of March 2021 and are between 40 and 70 minutes long. My decision to interview both psychedelic users and researchers within this field is an attempt to account for the diversity of perspectives, experiences, and stories tied to psychedelics. However, I recognise the shortcomings of defining *global* through interviews from the U.S., the UK, and Denmark. As mentioned before this thesis is not an attempt to universalise knowledge but an attempt to unpack the global spread of psychedelics visible in the global North in relation to repercussions of that for Indigenous communities and ecosystems. The Indigenous aspect is mainly illustrated through perspectives around peyote and the Wixáritari that arose in the interview with Diana Negrín, but also supplemented with secondary data and other research on the topic. It is not an extensive account for the situation of either the Wixáritari and peyote, or other Indigenous groups with ties to the psychedelics mentioned in this thesis.

[11]Diana Negrín is both a native of the Bay Area, San Francisco as well as Guadalajara, Mexico.

The interviews with psychedelic users concern their personal experiences with psychedelics to gain a deeper understanding of the interactions between humans and psychedelics on an individual level. As the aim of these interviews was to capture personal experiences the interview framework was based on unstructured interview guides covering certain topics rather than pre-made questions. This allows for flexibility and for the possibility of the interviewee to be able to express themselves more freely and even to some extent steer the interview (Bryman 2012). Furthermore, this way of interviewing minimises my preconceptions as a researcher of interfering too much and facilitates the emergence of themes from the interview. Though I have friends who—to varying degrees—use psychedelic substances it was important for me that the interviewees were strangers to minimise impact of my potential preconceptions as a researcher even further. Thus, I came in contact with the psychedelic users through a Facebook group about psychedelics in Denmark. Seeing as psychedelic substances are illegal in Denmark the gender identity and names of the users have been changed to protect their identities (see section 4.1.3).

The interviews with researchers differ from the psychedelic users in that they are not concerned with their personal experiences but were conducted to gain academic and in-depth knowledge on the global spread of psychedelics. These interviews can thus be understood as a form of expert interview which is useful to gain insider knowledge related to a specific topic (Bogner et al. 2009). The questions for these interviews were based on a semi-structured interview guide with open-ended questions (see Appendix I). This was a deliberate choice to ensure the interviews touched on specific themes based on the researcher's academic interests as well as my aim with the interviews while allowing for flexibility in letting the interviewees' answers guide the interview as well (Bryman 2012). More specifically, the questions asked were concerned with psychedelics and issues around them on a more structural and theoretical level to contextualise psychedelics' interaction with societal structures. The choice of researchers is based on my extensive narrative review conducted prior to interviewing where diverse perspectives on the global spread of psychedelics emerged. All researchers consented to being named and quoted in this thesis.

4.1.3 Interviewees

Interviewee	Title	Information
Sam Gandy	PhD ecologist/entomologist, researcher, writer, speaker, and general nature enthusiast located in the UK.	Has conducted research on psychedelics and nature connectedness in collaboration with the Beckley Foundation, as well as the Centre for Psychedelic Research at Imperial College, London.
David Luke	Associate professor of psychology at University of Greenwich and honorary senior lecturer at the Centre for Psychedelic Research at Imperial College, London located in the UK.	His research focus on transpersonal experiences and altered states of consciousness, especially via psychedelics, from both a Western scientific and shamanistic point of view.
Brian Pace	PhD evolutionary biologist and agroecologist, located in the U.S. He is a lecturer of *Psychedelic Studies* at Ohio State University.	Pace is a Politics and Ecology editor at Psymposia.com. He writes about the psychedelic industry, and connections between psychedelics and the alt-right.
Diana Negrín da Silva	PhD geographer, writer and adjunct professor and a native to both Guadalajara, Mexico and the Bay Area of San Francisco.	Conducts research on social movements in Latin America and the U.S. specifically on the Huichol/Wixáritari, focusing on Indigenous culture and territory.
Kim	Psychedelic user living in Denmark and has had experiences with Ayahuasca (DMT) repeatedly over the past 10 years.	Kim's first experience with Ayahuasca was through a friend, and they now use it introspectively utilising a ceremonial, Shamanistic framework.
Alex	Psychedelic user living in Denmark and has had experiences with Ayahuasca (DMT), San Pedro (Mescaline) and Psilocybe mushrooms (Psilocybin) both in South America and Denmark over the past 4 years.	Alex's first experience was in Ecuador, South America with the aim of healing PTSD, stress and depression and they now use some substances in a ceremonial, Shamanistic way.

4.2 Analysis of Material: Coding

A general principle of this thesis is to allow for themes, concepts, and theory to emerge from the data, aligned with the inductive reasoning of grounded theory (Bryman 2012). The main objective of grounded theory is to collect data prior to the analysis and development of theory ensuring that theory is 'grounded' in the data and not a departure for the data collection (Strauss and Corbin 1994). Although this thesis does not set out to generate any concepts or theory, grounded theory can still be used as a general guiding principle for both the collection and analysis of data. As a method of analysis, it is especially suitable for qualitative research with the aim of understanding a phenomenon through the data and the informants (in this case the interviewees). One of the most central processes for analysing data with grounded theory is coding. As Charmaz (1983, 186, emphasis in original) defines it, "codes...serve as shorthand devices to *label, separate, compile,* and *organise* data". Rather than having a preconceived idea of how to organise the data based on theory the data is treated as a potential indicator of concepts and theory. The coding process is not linear, and the codes are constantly revised and fluctuating throughout both the analysis and writing period. This was reflected in my process from the initial narrative review to the construction of the analysis, as elaborated on below.

According to Charmaz (2006, 42) "grounded theory coding consists of at least two phases: initial and focused coding". Before the initial coding process, I transcribed all the interviews, comprised them into one document, and used the comment-function in Word to note down codes. At the initial coding stage, a broad range of codes are assigned to the text to provide an initial sense of the data which, in my case, revealed a long and varied list of codes under the overall theme of 'psychedelics and environmental crisis'. The most important thing is to be open-minded and allow for as many ideas, and thus codes, of the data to emerge. After the initial coding I moved on to focused coding which entails placing emphasis on the more frequently occurring codes that seem most revealing (Bryman 2012). This was followed by a stage where I went through the codes and began to note down some commonalities, merging some codes while simultaneously making a list of some initial theoretical ideas. Based on this process, I grouped together quotes from the interviews that seemed most revealing in a new document and began structuring the analysis through writing the quotes together. Lastly, I conceptualised the quotes based on the theoretical ideas that had emerged throughout the coding processes. Thus, both the data gathering and writing of this thesis is based on inductive reasoning.

4.3 Positionality and Limitations

As mentioned before, psychedelics are not easily pigeon-holed into one thing, conceptualisation, idea, or being. However, there is a clear link between some Indigenous groups and psychedelics. To accommodate for the diverse perspectives around psychedelics a significant part of my analysis is concerned with the psychedelic industry's impact on Indigenous groups. Seeing as I am not of Indigenous heritage one may question my eligibility of studying said relationship. However, my aim with this perspective is not to speak *for* someone or any social group I am not part of, but merely an attempt to do away with the lack of consideration of the impacts of the global spread and Western usage of psychedelics on some Indigenous groups and territories. This should thus be understood as an attempt of 'studying up' (Priyadharshini 2003); utilising my positionality to uncover stagnant power dynamics while recognising that my position as a Western researcher may entail some shortcomings in relation to Indigenous perspectives. This rests on an acknowledgement that all knowledge is situated—as for example Haraway (1988) has pointed out—arising from a specific viewpoint and thus linked to power structures. I therefore wish to note that I do not claim universality with this thesis but to utilise my position within academia to scrutinise power dynamics and simple 'truths'.

Lastly, it is necessary to acknowledge that this thesis is of limited scope, and I especially wish to highlight the data collection method as an important factor and limitation of the conducted research. Due to time constraints and to some extent the COVID-19 pandemic I was not able to conduct every interview, or the fieldwork, that I would have liked to. An example of such would be to interview an Indigenous person/and or practitioner of Shamanistic psychedelic ceremonies as well as an actor from a corporation in the emerging psychedelic industry. It is my impression that such perspectives could have strengthened the analysis further. However, as mentioned above, much data on these perspectives exists online which is why utilising secondary data material can to some degree accommodate this limitation. In addition, it should be stated that although this work is mainly based on inductive reasoning I have been committed to critical theory, and unpacking simplistic truths, from the beginning. This should not be considered a bias, but merely an adoption of a lens that allows for particular power dynamics that in many cases are taken for granted as *invisible*, more *visible*.

Chapter 5: Analytical and Theoretical Approach

5.1 Political Ecology

With this thesis, I am committed to shattering "comfortable and simplistic 'truths' about the relationship between society and its natural environment" (cf. Perreault et al. 2015, 5), why the overall theoretical framework is located within the analytical framework of political ecology. Many definitions of PE exist, and the one that encapsulates the specific project of this thesis best can be found in Robbins (2011, 12) stating that political ecology entails "research-based explorations to explain linkages in the condition and change of social/environmental systems, with explicit consideration of relations of power". The social/environmental systems refer in this instance to an exploration of the interactions between psychedelics, humans, and the environment on both an individual and structural level. Further, as an analytical approach, PE recognises that culture, politics, and economics are interlinked and that socio-ecological relations are multi-layered, but nonetheless aims at scrutinising underlying power structures of such relations (Jönsson & Andersson 2017). Thus, in relation to power, this thesis is exploring socio-ecological and colonial structures through the emerging industry and commodification of psychedelics.

5.2 Human-Nature Relations

A core theme of this thesis is the relationships between humans and nature in the Anthropocene, and how that can be associated with the environmental crisis. Human-nature relations are viewed differently depending on the school of thought and to provide a rigorous analysis of the global spread of psychedelics, aligned with the aim of shattering simplistic truths described above, this is reflected in my theoretical choices. More specifically, seeing as this thesis is located at the intersections of Western and Indigenous worldviews, as well as ecopsychology and human ecology, the chosen approach demonstrates this through utilising relevant concepts from all academic fields. I therefore use several theories and key concepts to guide my analysis and the chosen frameworks are in one way or the other all related to human-nature relations. The theoretical frameworks are elaborated on below, however key concepts are introduced throughout the analysis and discussion in Chapter 6 and 7 to stay true to the overall inductive reasoning of this thesis. In short, the key concepts are *double-mindedness* (cf. Norgaard 2011; Orange 2016), *recontextualisation* (Bauman & Briggs 1990), *individualisation of*

responsibility (Maniates 2001), *biophilia hypothesis* (Kellert & Wilson 1993), and *sign value* (Baudrillard 1994).

5.2.1 Ecopsychology

Ecopsychology is applied to analyse individual human-nature connectedness induced by psychedelic experiences. In broad terms, ecopsychology focuses on the combination of psychology and ecology, moving beyond traditional focus on individual healing to embracing planetary healing for the purpose of sustainability (Roszak et al. 1995). It combines a central tenet within the science of ecology with psychology asserting that we in essence are interconnected with all life on earth—however have become psychologically disconnected through for example technological development and urbanisation. A core principle within ecopsychology is thus that to combat the environmental crisis, there is a need for inner transformations in the interiority of human spheres such as changes of values, mindset, beliefs, and consciousness (Ives et al. 2020). This can further be linked to human-nature connectedness (HNC) which encompasses a broad range of applications and terms such as nature relatedness (Nisbet et al. 2009) and (re-)connection to the biosphere in sustainability science (Folke et al. 2011). These are considered internal connections and are oftentimes characterised by emotional connections, shift in perspective or worldviews, and relates to humans sensed positive relationship to the non-human world. However, humans' relationship to nature or the biosphere at large can also be of material character. This encompasses for example pro-environmental behaviour (Casaló & Escario 2018) or ecological footprint (Wackernagel et al. 2019) and are considered external connections.

5.2.2 Interspecies Thinking and the Pluriverse

Interspecies thinking is applied to engage with how psychedelics can be viewed as a way of disrupting both Western culture and Anthropocentrism. More specifically, this lens is applied to highlight interspecies communication that can be observed through the lessons learned and knowledge attained from psychedelic usage. In *Unruly Edges: Mushrooms as Companion Species,* Anna Tsing (2012, 143) argues that "human nature is an interspecies relationship" and that we are interlinked with the ecological diversity on which humans rely on to survive. Although, through both the scientific revolution, technology, as well as exploitation and control over nature for the purpose of development this relationship has been destroyed (Merchant 1990). It is therefore crucial, according to this perspective, that we break down this assumed

dualism between humans and nature, repairing the inevitable interspecies connections. Importantly, ideas of interspecies thinking and communication are not an invention by Western scholars as they resemble the worldviews of many Indigenous peoples. As noted earlier, Indigenous worldviews entails that "ways of knowing inform ways of being or relating, including relating with other-than-humans" (Dev 2018, 197) through three interlocking worlds. Kim TallBear (2011) argues that including Indigenous standpoints to interspecies thinking allows to account for knowledge not only from relations with material, organismal beings, but immaterial, spiritual beings as well. This is crucial for the understanding of the examples of interspecies communication provided in the analysis below.

Additionally, ideas on the Pluriverse are rooted in political struggles of Indigenous and marginalised groups and is a project towards a world where many worlds can exist (Escobar 2018). Pluriversal thinking is critical of modernity and capitalism through its "conception of development as linear, unidirectional, material, and financial growth, driven by commodification and capitalist markets" (Kothari et al. 2019, xxii). Thus, pluriversal analysis allows for the identification of colonial, capitalist structures reproduced through the universalising project of modernity (Rojas 2016). Therefore, this framework can aid in rethinking what it means to be human and to critically engage with predisposed assumptions about for example universal knowledge, development, and societies. Further, the pluriverse is not only concerned with human ways of thinking but non-human as well and essentially lays the foundation for the possibility of combining the diverse views on human-nature relationships expressed in this thesis. Pluriversal ideas are used throughout both Chapter 6 and 7 but most importantly to critically engage with understandings of psychedelics—contesting the idea that plants cannot have agency—as well as what environmental solutions and socio-ecological change *really* entails.

5.2.3 Marxist Political Economy

To explore structural and material human-nature interactions and dynamics within the emerging psychedelic industry this thesis applies the theoretical lens of Marxist Political Economy. More specifically, ideas of commodification and fetishism is applied to analyse how the spread of psychedelics to the global North is interacting with capitalist structures. Based on a Marxist analysis, for capitalism to thrive, it is essentially necessary to exploit both nature and people for the benefit of accumulation of wealth which in turn, increases the private profit of

only a small elite (Foster 1999). Furthermore, in *The Ecological Rift: Capitalism's War on the Earth* (Foster et al. 2010) the authors argue that the ecological crisis is connected to wealth: in a capitalist society, the accumulation of wealth at the top is at the expense of public wealth but most importantly the wealth of nature. This process contributes to the undermining of sustainable existence, creating a rift between humans and nature through exploitation of nature and humans. The ecological rift is essentially an illustration of how capitalism fuels human's exploitative relationship with, as well as alienation from, nature which according to Marx is in essence more metabolic and reciprocal (Foster 2000).

In effect, and through what Gómez-Barris (2017) calls the *extractive gaze* it can be argued that very few things on this planet are exempted from being reduced into a commodity of monetary value which is key seeing as a central goal in capitalism is accumulation of wealth through the production, and exchange, of commodities (Peet et al. 2011). Such processes are often referred to as commodification to describe how, in a capitalist economy, nature, goods, services etc. are transformed into commodities of monetary value (Kaldor 1961). To encourage consumption, it is necessary to separate, that is, mystifying the commodity from its underlying unequal social and ecological relations, through attributing the commodity with autonomous agency. This is essentially what is described as fetishism of objects (i.e., machines, technologies, and commodities) (cf. Hornborg 2012; Marx 1867). Thus, seeing as capitalism thrives on exploitation of both nature and humans through processes "of primitive accumulation and capitalist expansion that fuels global environmental inequalities and coloniality" (Dev 2020, 12) the creation of any industry is arguably inherently unsustainable. It is therefore necessary to question what is set in motion as psychedelics move from being used by Indigenous peoples and as part of an anti-authoritarian counterculture to the boardrooms of large corporations.

5.2.4 Decolonial Studies

The commodification processes and global spread of psychedelics are further necessary to be understood through the impact of historical processes of European imperialism and colonialism that, like capitalism, have played a key role in the exploitation and subordination of Indigenous peoples. Decolonial studies contest human-nature dualism arguing that this is inherent in, and an important tool of, universalising modernity (Mignolo 2011). As Quijano (2000, 215) argues, "the globalisation of the world is, in the first place, the culmination of a process that began with the constitution of America and world capitalism as a Euro-centered colonial/modern world

power". Through the project of 'modernity' the modern/colonial world-system (Mignolo & Ennis 2001) was created and despite some people asserting that colonialism is over, it continues to thrive through global trade, social and economic relations, and power through coloniality. This world-system is especially important as psychedelics become more mainstream considering their Indigenous heritage and the inevitable connection to spirituality in relation to Edward Said's ideas on *Orientalism* (Said 1978). Reason being, how the whole creation of the Western, modern world rests on the West/East and modern/colonial dualism, where the West is characterised by forward-looking rationalism and the East as mysterious backwardness and spirituality. Such unequal relations are continuously kept in place as they are necessary to sustain 'modern', Western societies and way of life (Escobar 2007). Thus, especially seeing as many psychoactive plants have a historical connection to various indigenous groups, the commodification of indigeneity in relation to coloniality is necessary to explore. The theoretical frameworks outlined here will be used to analyse and discuss the collected data in the following two chapters.

Chapter 6: Psychedelics as Nature-Connecting Agents

6.1 Psychedelics and Human-Nature Connectedness

> Alienation from nature and the loss of the experience of being part of the living creation is the greatest tragedy of our materialistic era. It is the causative reason for ecological devastation and climate change. Therefore, I attribute absolute highest importance to consciousness change. I regard psychedelics as catalyzers for this (Hofmann 2013, 101).

At the age of 101 years Albert Hofmann, the chemist who first synthesised LSD, wrote the quote above in the preface to the 2008 World Psychedelic Forum. This now-famous quote sets the tone for Chapter 6, which departs from the research in Western academia on psychedelics' ability to increase human-nature connectedness (HNC) (cf. Lyons & Carhart-Harris 2018; Nour et al. 2017). HNC in this context refers to "the subjective sense of connection people have with the natural environment" (Nisbet & Zelenski 2014, 4269) which encompasses, amongst other things, cognitive, emotional, and experiential connections with nature. For the purpose of this part of the analysis, psychedelics are to be understood as an animate subject—a plant spirit and teacher—with its own agency and social relations capable of teaching humans knowledge, following interspecies thinking on plant intelligence (cf. Dev 2018; D. J. Haraway 2003).

6.1.1 Reconnecting the Disconnection

To gain a deeper understanding of how psychedelics can be seen as nature-connecting agents it is beneficial to turn to the interviews that were conducted with psychedelic users. What is noteworthy is that neither Kim nor Alex have used psychedelics with a prior intention of connecting with nature; however, both have experienced a sense of *reconnection* following their experiences with psychedelics. This can be exemplified by how they both recalled being connected with nature as children but lost that connection as they grew older. In the interview, Alex described how "I felt very close to nature as a child, but during my high school years my focus was elsewhere," and "I probably thought, "well, it [nature] is not really that important anyways" or "nature will always be there," or something like that". Alex continued to explain how this connected faded as they grew older and going to South America—where they had their first experience with psychedelics—was crucial for their reconnection with nature: "when I went to South America, I quickly fell back into it. It was basically as if something in me was saying: "yes!", and ever since then I haven't let go of nature and have basically spent time with nature every day".

Kim told me about similar experiences. When asked about whether they would say that their connection to nature was something they experienced before ayahuasca, they said:

> Yes, but I'd forgotten all about it. In my childhood, I remember experiencing a deep connection with nature but then I forgot about it as I got older and started a family (...) and I'd forgotten about it in my everyday life where I've been preoccupied with all sorts of things in life.

Like Alex, Kim would attribute their reconnection to nature to their experiences with psychedelics: "when I had my first ayahuasca experience, I remember lying down and saying to myself, "God, that is so obvious. Everything is exactly how I remember it; connected," so in that way, to be on this journey with ayahuasca has been just like coming home". Seeing as both Alex and Kim assert that they were both connected to nature as children it is important to note that studies on the relationship between psychedelics and HNC show that your prior sense of connection to nature may actually be of importance. In the interview with Sam Gandy, he noted that the lower a person's HNC is at baseline, the higher the chances of it being amplified or enhanced are (cf. Kettner et al. 2019; Forstmann & Sagioglou 2017). In other words, the less connected to nature someone is prior to their experiences with psychedelics the more substantial has the shifts observed been.

The (re-)connection with nature and feeling of 'coming home' that both Kim and Alex have experienced can be understood through the biophilia hypothesis. First put forth by Edward O. Wilson in the book *Biophilia*, this hypothesis describes the belief that humans are genetically predisposed to loving nature and have an "urge to affiliate with other forms of life" (Kellert and Wilson 1993, 416). This is generally connected to the idea within ecopsychology that for us to combat the environmental crisis there is a need for internal transformations related to people's values, worldviews, and consciousness (Ives et al. 2020). It is asserted that the reason for why we, as humans, continue to treat the environment poorly is because we have become psychologically disconnected from our core bond with nature. Thus, it seems noteworthy that both Alex and Kim remember feeling very connected to nature as children but as life passed by, they arguably lost this connection. In the book *Climate Crisis, Psychoanalysis, and Radical Ethics,* Donna M. Orange (2016) explains how our embeddedness in our own culture results in an inability to see that said culture is in fact causing environmental problems. Exemplified by both Kim's and Alex's experiences of losing their connection to nature as life passed by, if humans really are predisposed to loving nature, could it be argued that our culture is linked to a collective amnesia of such love?

6.1.2 Oneness with Nature

A belief that human disconnection from nature is an issue especially in the Western world was raised by both Alex and Kim. For this purpose, *our* culture is to be understood as a worldview inherent in 'modernity' (cf. Mignolo & Ennis 2001) where a cultural assumption of alienation from nature is innate. Various scholars (e.g., Merchant 1990; Evernden 1993) maintain that through scientific revolution, urbanisation, technological development, and the capitalist mode of production of the Western world, there has been a shift from viewing the Earth as a living organism towards an object to justify the domination and subjugation of nature. Kim described this relationship as:

> I think that us, here in the 'modern world' if you can call it that, have forgotten all about what balance is and we keep arguing that there are other things that are more important than balance (...) and we certainly don't have respect for nature or community.

In this context, Kim argued that balance refers to one's individual relationship with nature or living in symbiosis with your surroundings. Alex agreed with Kim that such imbalance is inherent to a Western worldview and argued that psychedelics are special in potentially being able to heal such disconnection:

> I use plant medicines because it can heal you in very special ways, grounding you, showing you what it means to be a human being on earth; being a life in a body. Something very basic really, but also *not*, in the Western world.

In contrast to said disconnection, one of the strongest characteristics of increasing HNC is the experience of a sense of oneness with nature. Through an increase in one's emotional connection to nature the culturally assumed distinction between humans and nature may be decreased (Mayer & Frantz 2004). This way of relating to the world was evident in the interview with Kim. When talking about nature and what nature means to them, they answered that "nature is me, and I am nature. For me, there's no difference whether it's a plant, a puppy or myself; we are all the same. That also means that I see everything more circularly than what is traditionally taught in school, with hierarchical structures locating humans at the top". Additionally, Alex told me about experiences similar to Kim's:

> Nature means everything to me. I am nature, and nature is me. Nature has some really special energies and is intelligent in a completely different way than us humans. I sometimes feel like nature is more intelligent than us (...) I communicate a lot when I'm in a forest and sometimes, I just stand there feeling. I get on a completely different frequency level when I'm with nature that I use a lot in my everyday life.

This perceived sense of oneness with nature that both Kim and Alex are experiencing can be seen as a form for antithesis to the above-mentioned aspects of disconnection and anthropocentrism innate in Western culture. As is noted by Bakker (2010, 718), alienation is mainly "associated with post-industrial lives and places". Plumwood (2002) further connects this perceived alienation of the Western world with anthropocentrism through describing the Anthropocene as a philosophical ecology that separates humans from nature. Additionally, in the book *Pluriverse: A Post-Development Dictionary* (Kothari et al. 2019, xxii) it is asserted that anthropocentrism contributes to human disconnection from nature as humans forget what it means to be 'a part of nature', contributing to our continuous mistreatment of nature. In the interview, David Luke therefore argued that "if everybody felt connected with the environment, I think, we would not have so many environmental or ecological problems". This is aligned with what Ives et al. (2020) argue, asserting that what lies at the root of our environmental challenges is the condition of our inner, or psychological, worlds. If you see nature as an extension of yourself, why would you want to contribute to the destruction of it? This is further

discussed in section 6.2 but first, psychedelic usage and human connection to nature is explored through Interspecies thinking.

6.1.3 Interspecies Thinking

In the paper *The Role of Indigenous Knowledges in Psychedelic Science,* Evgenia Fotiou (2020, 18) argues that "the separation between physical, emotional, and spiritual is a western artifact and largely absent in Indigenous knowledge systems". Essentially, what this entails is that many Indigenous groups not only reject the distinction, or dualism, between humans and nature but asserts that the more-than-human world has intelligence. This further entails that in many Indigenous settings where psychedelics are used, they are seen as "an intentional agent and indeed a 'plant teacher'" (Fotiou 2020, 19). Psychedelics are thus not only seen as a way to 'get high' but are a central pillar to many Indigenous groups' way of life, territory, and accessing knowledge (George et al. 2019). Interestingly, both Kim and Alex have experienced what can arguably be best described as interspecies communication both during and following a psychedelic trip. When discussing whether their experiences with ayahuasca has changed their view of nature, Kim said:

> Yes, I've experienced an increased ability to see other things, for example trees that are breathing, communication between plants, which has been especially noticeable after an ayahuasca trip. However, before a trip I also experience (...) an increased awareness that we will soon meet each other on a level that I think the plants have more control over than we actually have, because of our cognitive abilities.

For Alex, experiencing a sense of interspecies communication was expressed through learning a completely different way of being with nature from psychedelics. When I ask whether their psychedelic experiences have changed their relationship to nature, Alex answered: "yes, it most definitely has. My approach to nature now is that I need to show up more for it, and I want to give back to it. I know I can *use* nature, but I see it more as a collaboration now"[12]. I asked Alex what they mean with collaboration, and they answered, "I talk to nature, and when I give back to nature, I thank nature for being allowed to go for a walk for example. If I drink water, I make sure to pour some water into the ground as well, thanking nature for providing me with water in the first place". From this perspective, it may be argued that breaking down

[12]Noteworthy, Alex also mentioned that in relation to their experiences of connecting with nature through psychedelics, they experienced no difference between ayahuasca, san pedro, or psilocybe mushrooms.

anthropocentrism is necessary in "naming and troubling these categories of living/non-living that have been naturalised and taken for granted" (Dev 2020, 3–4). Not only is that necessary in acknowledging Indigenous knowledge systems that for long have been excluded as non-scientific, but it is asserted that it may aid in restoring human's relationship to nature towards one granted in reciprocity, and thus be beneficial for the biosphere at large. Reason being, as Carolyn Merchant (1990) argues in *The Death of Nature,* the hierarchical order of separating humans from nature has been crucial for the domination and exploitation of nature. Thus, as Diana Negrín argued during the interview, "we need to think about what the plant needs, extending our thinking towards: what might this look like from the perspective of the plant?".

If nothing else, (re-)connecting humans with nature and viewing psychedelics as nature-connecting agents, is per definition interspecies thinking. However, why does this matter? According to Arturo Escobar (2018), if we are serious about wanting a future "world where many worlds fit" pluriversal thinking is necessary. Pluriversal thinking essentially means a complete reinvention of the human through an understanding that "what needs to change is an entire way of life and a whole style of world making" (ibid, x) referring to the project of 'modernity' and Western capitalism. It is an understanding that the environmental crisis is not only ecological, but cultural, economic, and psychological as well, where both social *and* individual change is necessary (Tonkinwise 2015). It is about "transforming entrenched ways of being and doing toward philosophies of well-being and finally equip humans to live in mutually enhancing ways with each other and with the Earth" (Kothari et al. 2019, xi). Thus, considering the analysis above one might ask, what if psychedelics could be beneficial for the biosphere and battle against the environmental crisis through lessons of breaking down Anthropocentrism and increasing human connection with nature?

6.2 Behavioural Changes

In addition to arguments put forth above, what may Kim and Alex's reconnection, sense of oneness with nature, and interspecies communication imply for the environmental crisis and biosphere at large? According to Packalén (2010, 121), change should not only take place "in the external physical environment, but just as much in our cultures, i.e., in our heads". Additionally, apart from Donna Orange's assertion that humans' embeddedness in culture may hinder us from identifying our own harmful behaviour she uses the concept double-mindedness to describe how we are essentially living in two realities at once: simultaneously aware of the

environmental crisis and its urgency while paralysed by the seemingly infeasibility of structural issues. Thus, instead of acting, we continue business as usual hoping for, or counting on, systemic change (Orange 2016). However, if the environmental crisis is indeed induced by humans and there are ways in which one can decrease one's ecological footprint (through recycling, saving water etc.), could there be a connection between increasing human's psychological connection with nature, and thus environmental consciousness, and the well-being of the biosphere? Firstly, Sam Gandy noted that it is important to stress that this is not about claiming that psychedelics are magically capable of changing people's behaviour. In the interview, he argued:

> I'm not evangelical in any way when it comes to them, but if the evidence is there that they can help facilitate robust long-term increases in nature-connectedness, which isn't a rational knowledge-based thing, it's much more to do with your empathic, emotional connection to nature, your love of nature, anything that *could* help would be really foolish to ignore, because business as usual isn't working out.

What Gandy is referring to here is the perhaps most substantial argument for how reconnecting humans with nature may be beneficial for the biosphere at large: the belief that it will lead to humans treating nature better and changing their ecological behaviour. According to Sam Gandy, "nature-connectedness is a strong predictor of pro-environmental awareness, concern as well as behaviour". This relationship is supported by various research especially within the field of ecopsychology (cf. Mayer & Frantz 2004; Ives et al. 2018; Obery & Bangert 2017). In specific relation to psychedelics the paper *Lifetime Experience with (Classic) Psychedelics Predicts Pro-Environmental Behaviour Through an Increase in Nature Relatedness* by Mathias Forstmann & Christina Sagioglou (2017) investigates this relationship. Through a large-scale (N=1487) online study of the relationship between experiences with psychedelic substances, nature relatedness, and ecological behaviour, it is found that especially lifetime experiences with psychedelics forecast (self-reported) pro-environmental behaviour (e.g., reducing one's CO_2-emissions, eating less meat) which was statistically explained by participant's self-identification with nature. David Luke addressed this in our interview, saying that:

> You could assume that there is a relationship between concern [for nature] and therefore pro-environmental behaviour. Not always of course, but the root of our climate crisis, and even ecological crisis, is a climate of consciousness. You often hear ecologists saying you can do conservation, regeneration projects etc. but people's attitude towards nature needs to change.

> People need to fall in love with nature again, and you can only do that if you feel connected with or passionate about nature.

This relationship between nature-connectedness and pro-environmental behaviour can be observed in the interviews with psychedelic users both directly and indirectly. When talking about whether psychedelics have contributed to a change of behaviour in their lives, both Kim and Alex mention their plant-based diets as an important change. For Kim, this has been a somewhat gradual development over the past 10 years:

> I've changed my eating habits progressively over the course of the last 10 years, without actually coming out of a trip thinking, "we should all be vegan or vegetarian now". It hasn't been like that, but I experience a greater desire for plants and plant-based foods than before.

Kim credited their increased desire for a plant-based diet to the sense of connection that they have experienced on their ayahuasca trips as well as shamanism as a framework for experiences with psychedelic plants[13]. They argued that:

> There's an intuitive feeling that you'll benefit from eating more plants than animal products. I'm not sure where it stems from, but it's almost as if you're drawn more to plants than animal products. When you work with plants in a shamanistic way, you fast and try to avoid certain food before the ceremony to have a good trip. There's a more plant-based culture around it.

Additionally, Kim spoke about how their family moved to a small island in Denmark, only sailing a sailing boat, buying only second hand, stopped travelling etc. These choices, according to Kim, are a result of wanting to change their pace (slowing down) and experiencing that everything is connected after their ayahuasca trips. It is not necessarily a deliberate pro-environmental choice, although they are aware that their choices are beneficial for the environment. Kim further argued:

> I'm not someone who'd say, "from now on we should only buy second hand because the clothing industry is devastating for the environment". However, we only buy second hand. Not really because of the environment, but because of this feeling that everything's connected in cycles. We're not going to put something in motion that requires the use of raw materials to produce something new as there's a pair of cool jeans for 40 DKK in the second-hand shop. We're of course aware that it has a positive impact on the environment, but that's not the main reason.

[13] See section 7.1 for a critical reflection on this relationship.

When I asked Kim if they have always lived like this, they answered: "No, definitely not. Before ayahuasca, we lived like most people live today. If the dining table broke, we took a trip to IKEA or ILVA to find a new dining table we liked".

For Alex, their plant-based diet is a more direct choice in relation to the environment:

> I already ate plant-based before going to South America but now I'd say I'm even more aware of what I eat in relation to what is climate conscious. Before, I only ate plant-based in general, but now I also think about what is locally produced, seasonal, and what needs transportation.

Additionally, Alex shared that:

> I can feel a huge shift in my family after I came back from South America and spoke very openly about my experiences. My whole family has become very plant-based subsequently, as one of the things. It's also something I've noticed in my circle of friends, and they've mentioned that they don't always understand it, but I can see a shift in how they're more attentive about for example climate change, society, community, and what they can do.

Pro-environmental behaviour is essentially linked to the idea that human's need to decrease our ecological footprint. As is argued by Mathias Wackernagel & William E. Rees (1998, xi) in the book *Our Ecological Footprint* "the first step towards reducing our ecological impacts is to recognise that the "environmental crisis" is less an environmental and technical problem than it is a behavioural and social one". From this point of view, increasing human's connection to nature through usage of psychedelics could be beneficial for the biosphere at large. However, both Alex and Kim's change of behaviour refer largely to individual changes and choices. What does that entail in relation to structural issues around the environmental crisis? This is discussed in the next section.

6.3 Individual vs. Structural

As illustrated in the previous sections, the psychedelic users I have interviewed can be argued to live rather 'eco-friendly' or 'environmentally friendly' lives making decisions that are reducing their individual ecological footprint. However, not everyone agrees that promoting individuals to reduce their impact on the environment is sufficient, or even justifiable, in combating the environmental crisis. Counting on individual behaviour to hinder the environmental crisis is arguably disregarding capitalist structures with corporate and governmental responsibility at the centre (Maniates 2001). This refers to individualisation of responsibility within the environmental crisis, which leaves little room to scrutinise institutions

and economic power, in favour of corporations and neoliberalist capitalism (ibid). When I asked Kim whether their experiences with ayahuasca have affected their concern about nature they answered that they now have a much more positive view on the current state of the environment. They explained that this largely depends on being shown that everything is in balance when they are on an ayahuasca trip. They interpreted this balance as:

> When we push in one direction, something else is pushing in another direction. So, somehow, I think I've become more reassured by being on these ayahuasca trips than I was before. This isn't to say that I think the issue [environmental crisis] has become less serious, but I've probably become less fundamentally scared. Ayahuasca shows me that everything is in balance, but what that means I don't know because in my everyday life I can observe a very large imbalance.

Kim is here touching on an important point. What does individual connection to nature entail when effects of the environmental crisis are still visible and continue to increase? Sure, it may be useful to engage in pro-environmental behaviour and reduce one's ecological footprint but is it a sufficient solution to the environmental crisis? In the paper *Dithering While the Planet Burns*, Hornborg (2017, 68, emphasis in original) argues that the "mainstream discourse on the Anthropocene projects an image of the *human species* (rather than a privileged global minority) having transformed planetary biogeochemistry". Further, environmental degradation, financial instability, and inequality of the Anthropocene is arguably not individual's doing, but rather the capitalist world market (ibid). One may thus be critical of the assertion that increasing human-nature connectedness—as was argued in the previous section—is beneficial for the environmental crisis. Does it diverge the focus away from what is *really* at play? The interview with Alex displays this paradox between individual and structural responsibility as they mentioned that they are emotionally affected by the crisis but at a loss for what they can do as an individual:

> I get really upset when I see garbage everywhere and when people treat nature badly. I usually pick up trash when I'm out in nature, and try doing what I can, but I also think it's difficult to know what to do because these are large, societal issues. In the end, it's not just about one, simple little thing.

This touches on an issue that exists within sustainability research and work in general: how much responsibility for the environmental crisis can, and should, be placed on the individual?

The shift towards an individualisation of environmental responsibility is not necessarily a new phenomenon. Bookchin (1989, 5) argues that "to coerce people into believing that they are personally responsible for the present-day ecological dangers" is quite literally both incorrect and unjust. In the article *Focusing on how Individuals can Stop Climate Change is very Convenient for Corporations,* Morten Fibieger Byskov (2019) argues that there are (at least) two reasons for why placing the responsibility on the individual is unjust. First, statistically, individuals are blameless for climate change. A recent report by CDP (Griffin 2017, 8) showed that since 1988, only 100 companies alone bear the responsibility for 71% of global emissions. Out of these companies, the highest emitting (investor-owned) companies were all Western companies (ibid). Essentially, as the title implies, individualisation of environmental responsibility is a convenient way for corporations to diverge the focus away from themselves. As Moore (2016) argues, the environmental crisis is essentially *capital*'s doing and through mainstream environmentalism's focus on the Anthropocene—and that the environmental crisis is the doing of some abstract humanity and not a result of neoliberal capitalism—the history behind the crisis is both mystified and made more abstract than it is. Essentially, the individualisation of environmental responsibility is based on a core tenet of neoliberalism working in favour of capitalism.

Second, and therefore, Fibieger Byskov argues that governments and corporations should be held accountable for the environmental crisis seeing as they bear the largest responsibility for the damage caused. Obviously, it can be argued that especially those who can afford it have an individual responsibility to limit their ecological footprints. However, as Bookchin (1989, 5) argues, if eco-friendly lifestyles and "militant recycling are the main solutions to the environmental casts, the crisis will certainly continue and intensify". Even though it might be unintentional, the idea that psychedelics can increase human-nature connectedness and through that, pro-environmental behaviour, is arguably contributing to placing responsibility for the environmental crisis on the individual. Psychedelic usage may increase an individual's sense of connection to nature which may contribute to more pro-environmental behaviour generally. However, as Kim argued, what does balance with, or connection to, nature *actually* mean when large imbalances and environmental destruction continues to transpire? As Kothari et al. (2019, xxix) argues, "honourable rhetorics of abstract justice, even spiritual paeans to Mother Earth, will not suffice to bring about the changes we want. Building a pluriversal house means digging a new foundation". It is therefore of interest to critically engage with the emergent psychedelic industry and global spread of psychedelics, which is done in the following section.

Chapter 7: Psychedelic Industry and Indigenous Territories

The previous chapter has addressed Research Question 1 exploring psychedelics as nature-connecting agents through a theoretical lens of interspecies thinking and ecopsychology. This was further discussed in relation to the environmental crisis through ideas of pro-environmental behaviour and individualisation of responsibility for environmental degradation. Interestingly, themes surrounding the psychedelic industry came up in the interviews as well. Following Castree (2003, 274) arguing that it is "important to identify analytically what distinct attributes things take on during the capitalist phase of their commodity existence", this chapter addresses Research Question 2 and 3 through exploring the commodification of psychedelics in a Western context, as well as some repercussions of that. In this context recontextualisation, based on Bauman & Briggs (1990) definition, allows for the analysis and understanding of power as practices and things transform through contextual changes. In this part of the analysis psychedelics are to be understood in two ways. Firstly, as an animate subject as was presented in the previous chapter. Secondly, as a form of technology, that is, an object "attributed with autonomous productivity or even agency, obscuring their own foundation in asymmetric global relations of exchange" (Hornborg 2014, 121). This differs from—albeit is related to—the animate understanding of psychedelics in the first part of this analysis in asserting that on the capitalist market, psychedelics become an index of accumulation or in other words, an embodiment of "*exploitative* social relations" (ibid, 128, emphasis in original).

7.1 Commodification of Psychedelics

As mentioned in the Background section there are currently a lot of investments and capital going into the psychedelic industry in the global North (cf. Bloomberg 2020; Benzinga 2020). Based on this trend the emergence of a psychedelic industry arguably becomes yet another piece of the puzzle in driving economic inequality as these examples may serve as an illustration of the accumulation of wealth following historical patterns of a colonial/modern world power (cf. Quijano 2000). Additionally, wealth accumulation is dependent on unequal social and natural exploitation for a small social elite to maintain modern power relations, thus playing a key role in driving the environmental crisis (Foster et al. 2010). In the interview with Brian Pace, he brought forward his criticism of the focus in both research and popular media on psychedelics' ability to increase nature-connectedness and pro-environmental behaviour.

Pace, and Psymposia[14] at large, are stressing that the *set and setting* for the psychedelic industry is essentially capitalism. The term *set and setting*, credited Timothy Leary, one of the people popularising psychedelic use in the Western world in the 1960's, refers to *set* (short for mindset) as the mental state a person brings to the psychedelic experience, and *setting* as the physical or social environment of the experience (Carhart-Harris et al. 2018). Seeing as we are currently living in a world where neo-colonial capitalism is the setting, one might therefore assume that power relations within the psychedelic industry will not be any different as psychedelics move into the boardrooms of large corporations.

In further relation to these dynamics within the psychedelic industry it is noteworthy, as both Brian Pace and Diana Negrín mention in the interviews, that COMPASS Pathways was recently granted two U.S. patents for a synthesised version of psilocybin (Psilocybin Alpha 2021). Seeing as psilocybin is a natural compound, it cannot be patented, but synthesised versions and the way it is made and used can. In an interview, David Casimir, a lawyer specialising in intellectual property rights, said "there's not that many patents in the queue right now—there might be 100, but there's going to be around 5000 in three years if I had to make a guess"[15] (Love 2021). This development came up in the interview with Alex who expressed their dissatisfaction with such progress, saying "every time I hear about people or corporations who wants to patent nature and what nature can do, I'm just like, fuck you!". This arguably illustrates an interesting development around psychedelics, especially seeing as some researchers from Johns Hopkins recently claimed that they had to pay labs between $7,000-$10,000/gram of psilocybin for something which, on average, you would pay $10 per gram for on the street (Goldhill 2018). Brian Pace described this as "wrapping the ineffable in plastic" referring to how these corporations wish to be the first movers in the emerging industry to "collect the cash" through commodifying psychedelics and a *mystical* experience, illustrated below.

7.1.1 The 'psychedelic experience' and Individualisation

In the interview, Alex expressed their concerns about the commodification of psychedelics in relation to the global spread of psychedelics, especially ayahuasca. They argued:

[14]A non-profit media organisation that offers leftist perspectives on drugs, politics, and culture.
[15]I do not delve into this further, but it would be beneficial to scrutinise this increasing trend of patenting psychedelics in relation to Biopiracy, Indigenous Intellectual Property, and protecting traditional knowledge.

> The fact that ayahuasca even exists in Europe now has been a whole thing, because how much can we allow ourselves to sell something that isn't even part of our culture? (...) There are a lot of grey areas, and it's difficult but important to navigate in that, I think.

This seems especially important to note in relation to how both Alex and Kim think that intentionality through a ceremonial framework, especially grounded in Indigenous knowledges, is important for their experiences (see section 6.2). What then, does this recontextualisation and global spread of psychedelics as a commodity—towards individual consumption on the capitalist market as *set and setting*—entail in relation to psychedelics ceremonial and sacred meanings? Although most transactions likely happen on the unofficial market seeing as psychedelics are illegal most places the global spread Alex is referring to may be illustrated by the existence of some legal online 'smartshops'[16] (e.g., Zamnesia.com, Elephantos.com, Azarius.net). These shops offer everything from (magic) mushroom growing kits and truffles, ayahuasca (and DMT) as well as seeds for Peyote, Peruvian Torch, and San Pedro. Additionally, psychedelics as an experience is becoming increasingly popular as seen through the rise of psychedelic or spiritual tourism (cf. Laure Vidriales & Hannon Ovies 2018). The webpage retreat.guru—functioning basically like booking.com—credits themselves as the "world's largest collection of transformative experiences" (retreat.guru 2021c) (both with and without psychedelics). At the time of writing, there are a total of 593 retreats to choose from in Europe, USA & Canada, Latin America, Asia & Oceania when ticking the boxes for 'Ayahuasca' and 'Psychedelic & plant medicine'.

On many of these retreats' webpages statements promising "transformative experiences", "creative breakthroughs", "expand your consciousness" etc., are common occurrences. According to Pace, what the psychedelic industry wishes through such promises is essentially to make money through *glittering generalities*: a term referring to vague (usually propaganda) statements with only positive connotations (Stevens 2012). Pace argues:

> Good propaganda means what the audience wants it to mean, and this is why I specifically attack the assertion that psychedelics are going to save the world, and I do quote because many people in this space have asserted exactly that, but what does it really mean? It means whatever anybody wants it to mean.

[16]A retail establishment specialising in sales of psychoactive substances, including psychedelics. The name is derived from "smart drugs", typically referring to drugs or supplements affecting consciousness and cognitive enhancements (Horne 2014).

These statements may be further understood through Baudrillard's (1981) theory of sign value. This refers to how corporations use advertisement directed towards people's subjective feelings—ascribing a form of 'cultural mystique' to commodities—to encourage consumption through feeding into people's socially and culturally constructed identities. Essentially, what Baudrillard argues is that in our capitalist consumer societies commodities (goods and services) are consumed just as much for their sign value, that is, the status they signify, as their intrinsic value which has become a constituent of our contemporary consumer society. David Luke uses mindfulness as an example of how these promises feeds into a broader trend of 'improving yourself to improve society':

> There's a big discussion about mindfulness and how it's being used by the corporate industry and elites to make people put up with shitty working environments through mindfulness. Corporations love that, as a way to get people to tolerate shitty working environments. So, yeah, should we make people better functioning in this system, better workers, or should we go to the root of the problem that needs fixing?

Through feeding into subjective feelings and culturally constructed identities of people and commodifying the psychedelic experience as with regards to mental health—and human-nature connections for that matter—the same tendency as with mindfulness is arguably beginning to form around psychedelics. This is further illustrated by the increasing usage of them in places such as Silicon Valley as a strategy for people to "boost their careers" through managing anxiety, burnout, and emotional labour of a competitive and exhausting working environment (Kelly 2020). This is an intriguing example as it feeds into the tendencies of individualising responsibility for structural issues within neoliberal capitalism (see section 6.3) and psychedelics are commodified as an experience. This is particularly interesting as Luke points out: many mental health issues such as burnout, anxiety, depression etc., can be linked to capitalism itself. In the book *Politics of the Mind: Marxism and Mental Distress*, Iain Ferguson (2017, 32) argues that "it is the economic and political system under which we live—capitalism—which is responsible for the enormously high levels of mental-health problems which we see in the world today". Thus, in relation to the idea that psychedelics can save the world, that psychedelics are being sold within the capitalist market essentially as a cure from itself is arguably ironic. As Pace mentioned in the interview:

> We're looking at maintenance drugs for the trauma of a dying world, and that's an issue. If we don't question the structure of social relations or our economy, psychedelics will fall right into the system as a means of making us all more happy to comply with it.

7.1.2 'Indigeneity' and Coloniality

This development around psychedelics feeding into a 'well-being culture' also provides an opportunity for the continuous appropriation of indigeneity[17] and thus, perpetuation of coloniality. In going through the retreats available on retreat.guru the usage of images of Indigenous peoples as an advertisement serves as an example of the commodification of indigeneity within the psychedelic industry. Many retreats seem to be using indigeneity as a way to advertise or justify 'legitimacy' through writing for example "we work with traditional Peruvian Shipibo Healers" (Soltara 2021) (noteworthy, on a retreat in Costa Rica) or using pictures that are from ceremonies with Indigenous peoples (cf. retreat.guru 2021a; 2021b). Additionally, on Elephantos.com's smartshop, they write "no need to travel to the Amazonian jungles; you can easily buy Ayahuasca on Elephantos's Online Smart Shop" (Elephantos 2021a) respectively "no need to break a sweat in the deserts of Mexico; buy a Psychedelic Cactus from Elephantos for an air-conditioned trip" (Elephantos 2021b). Essentially, this can be seen as a form for glorification of consumption of 'exotic' commodities, where portrayals of indigeneity are seen as desirable and legitimate while exotifying the Other (cf. Said 1978) and feeding into *oriental* narratives and the modern/colonial world system.

It is therefore necessary to note how, when psychedelics are turned into a commodity on the capitalist market, they arguably become disconnected from the social, natural, and cultural meanings while at the same time, as illustrated here, the attributes of such meanings are appropriated to sell a product and make a profit. This feeds into the reproduction of coloniality and what Edward Said (1978, 40) argues in the book *Orientalism*: "what gave the Oriental's world its intelligibility and identity was not the result of his own efforts but rather the whole complex series of knowledgeable manipulations by which the Orient was identified by the West. (...) Knowledge of the Orient, because generated out of strength, in a sense creates the Orient, the Oriental, and his world". In other words, 'the Oriental', exemplified here as the usage of indigeneity as a legitimator, is not a physical reality but an image or false representation created by the West. These images become a diluted version of what it claims to be, as Said (ibid, xiv) argues, "history is made (...) unmade and re-written, always with various silences and elisions, always with shapes imposed and disfigurements tolerated". Thus, the

[17]Indigeneity should in this context be understood as an Indigenous identity that is both experienced and constructed through the politics of continuous coloniality (Alfred & Corntassel 2005).

pictures and quotes used on these websites, though attempting to create a form for legitimacy, are arguably nothing but capitalist appropriation, through commodification, of indigeneity.

In the interview, Diana Negrín told me how this commodification of indigeneity is further visible around peyote and in the Wixáritari territory:

> The territory where the Wixáritari goes is linked to the sacred places of their ancestors and those are also the areas where a lot of these non-Indigenous communities are going because they want to annulate the pilgrimage. One of my Wixáritari friends told me the other day that (…) they were really surprised by seeing quite a few white people dressed in Wixárika attire in the same places where they historically go. Rather than, because the desert is quite large, and some of these tourists could go to some of the other areas where peyote is more plentiful, but I think there's an attraction to replicate a certain ceremoniality. This is really changing the discussion around peyote from when I was little; the scarcity of it, the politics of it, the globalisation of it.

In the book *Shamanism, Colonialism, and the Wild Man,* Michael Taussig (1987) describes similar dynamics as Negrín's example, that is, exotifying indigeneity and Indigenous practices, albeit specifically in relation to ayahuasca. Essentially, it may be argued that indigeneity is being fetishised and exoticized as something to be both acquired (through appropriation) and scrutinised (through commodification) by non-natives, playing into the well-known and historical exploitation of Indigenous peoples by the global North. Furthermore, Joseba Arregi (2021, 6) highlights that tourism motivated by attaining a sense of indigeneity is essentially a way of reproducing coloniality, seeing as "this phenomenon has to do with a historical feature among white Americans that leads them to idealize the indigenous", referring to the colonisation of the Americas and Indigenous peoples.

Essentially, the same could be said about the psychedelic tourism and the usage of Indigenous peoples to legitimise psychedelics as 'nature-connecting agents'. In the interview, David Luke mentioned that "psychedelics stem from a nature-based epistemology and Indigenous peoples have been using them for thousands of years and they are often, naturally, caring of nature". I have noticed similar tendencies in articles about psychedelics and human-nature connectedness referring to the relationship between psychedelics and Indigenous peoples as generally 'caring of nature' (cf. Forstmann & Sagioglou 2017; Gandy et al. 2019). Although this may be true, using Indigenous peoples as a justification for research on psychedelics as nature-connecting agents and solution to the environmental crisis is arguably reproducing ideas of the 'ecological Indian'. In the book *Environmentalism in Popular Culture* No'l Sturgeon (2009) notes how this

stereotype has its roots in the European settlers' earliest portrayals of Indigenous peoples as savages. Most importantly though, the figurine of Indigenous peoples as naturally connected to nature perpetuates a romanticised—and in large fictitious—attraction to a perceived lost purity, arguably giving rise to the exotification of Wixárika identity described in the previous paragraph. It is therefore important to realise that there is a huge difference, albeit fine line, between asserting that Indigenous knowledges should have a place in psychedelic research (cf. Fotiou 2020) and reproducing colonial stereotypes. This is not to say that tourists or psychedelic researchers are on a mission to reproduce coloniality, but to highlight the continuation of outdated, colonial images and ideas about Indigenous peoples in the psychedelic industry.

Arguably, thus, when the *set and setting* is the Western capitalist market it seems as if psychedelics are reduced to an object of solely monetary value, stripped of contextual values, and feeding into the notion of universality that is key to Eurocentric modernity (Kothari et al. 2019). Karl Polanyi (1944) describes commodities that are not *produced* for exchange on a capitalist market—such as land, labour, and money—as fictitious commodities. This term may be useful in understanding the commodification of psychedelics. When something is reduced to a commodity solely of monetary value, especially when that object has significant natural, cultural, and social meanings and relationships, Polanyi argues that it puts both the commodity and the social and natural relations it is embedded in, in danger. Reciprocal relations and social or cultural norms tied to an object may work as an important protector against overexploitation (Dev 2020). This is important to note in relation to the agency of psychedelics. Firstly, seeing as they have these specific ties, solely viewing them as a plant, or reducing them to a commodity of monetary value, may be seen as a type of colonial erasure (cf. Dev 2020; Nevins & Peluso 2018) why it is crucial to recognise their agency as plant spirits or teachers. Additionally, in a capitalist market, when exchange is controlled by economic interest, this may contribute to the veiling of an object's underlying socio-ecological structures. Thus, as psychedelics enter the capitalist market, they are also assigned a second form of agency: that of a disconnection from the social and ecological implications of their consumption (Hornborg 2014), resting on an illusion that commodities are politically innocent. It is therefore necessary to consider, who is the increasing global spread and consumption of psychedelics *really* beneficial for and what do these commodification processes set in motion globally?

In the interview, Diana Negrín told me that she grew up and saw what the appropriation and commodification of psychedelics and indigeneity from the Western psychedelic community

could do. She told me how "I have very vivid images from when I was a kid, of psychedelic folks coming with hungry eyes, coming only for the trip. I think it creates such a strange understanding of nature and of spirituality". She continued, saying "it always had to do with the peyote. No other aspects of Wixárika culture or the territory, necessarily. If they *were* interested in other aspects of the Wixárika culture it was because of, again, peyote as this very powerful point". This serves as an illustration of how the commodification of peyote, and psychedelics in general, may be at the expense of the Wixáritari, as everything becomes about the peyote through a colonial lens created by the West where cultural, territorial, and ceremonial meanings are both appropriated and shielded. Again, this becomes especially evident, as Dev (2020) argues, for commodities with ties to Indigenous peoples, as they are fetishised by the Western world and seen as "exotic". Coloniality continues to affect Indigenous peoples globally, and arguably so also through the psychedelic industry. This is especially noteworthy, seeing as both peyote as a plant, as well as the territory where peyote is endemic, is under pressure from outside actors looking to use the area for agriculture or mining (cf. Hollander 2017; Labate & Cavnar 2016), which is elaborated on below.

7.2 Impacts on Indigenous Groups and Ecosystems

The impacts of the commodification of psychedelics in the global North cannot be exempt from scrutiny which is illustrated by "turning the notion of fetishism back on Europeans attributing it to exotic Others" (Hornborg 2014, 130) to take the agency of psychedelics as a fetishised technology into account. This is following ideas of fetishism where the "fetishism of technology represents a specific mode of mystifying unequal exchange" (Hornborg 2012, 43). In this case, this is illustrated through the consumption of psychedelics as a commodity in the global North (both as nature-connecting agents and mental health related self-improvement) at the expense of Indigenous territories. The examples drawn on here mostly concern peyote, and the Wixáritari, but as both Diana Negrín said in the interview, as well as may be illustrated by various solidarity initiatives between Indigenous groups (e.g., UMIYAC[18], IPCI[19]), these dynamics are true for several Indigenous peoples with ties to psychedelic plants. Although I recognise that this may be a problematic generalisation of the diverse histories and contexts for

[18]Unión de Médicos Indígenas Yageceros de la Amazonia Colombiana/Union of Indigenous Yagé Medics of the Colombian Amazon.
[19]IPCI is the Indigenous Peyote Conservation Initiative.

psychedelics and Indigenous groups, I draw on literature where similar dynamics have been observed.

7.2.1 Cultural Footprint

In the interview with Diana Negrín, she explained that for the Wixáritari "these plants, these knowledge systems, these ceremonies, and pilgrimages are all rooted in territory". What this essentially means is that peyote, and other psychedelic plants alike, have ontological and political ties to the territory and to the Wixáritari in general. Negrín described this relationship:

> Peyote is deeply important [to Wixárika] and that's why you may hear many Wixáritari saying that without peyote, our lives end. This is the central piece to who we are and it's not because of the psychedelic tripping. I think that it's very easy because of how the psychedelic community's aesthetic works to think that it's because there's this mind-body self-care thing (...) but it's much more grounded than that (...) and I think that one of the reasons for why the Wixáritari are reacting and starting to freak out and get scared the way that they are right now is because it's now seemingly possible that peyote might not be around forever.

Additionally, David Luke spoke about this in the interview, arguing that:

> The origins, and the culture in which they are taken, has been co-opted initially by perennialists, mystics, poets and people like that, but you can't divorce psychedelics from those cultural contexts. I think it's important we don't lose contact with the original usage of these substances. The people, Indigenous peoples, who have been keeping the wisdom and knowledge around them for so long. You can't divorce any of these things; the political, ontological, ecological.

Luke and Negrín are here touching on an important rift that has been illustrated throughout this thesis; psychedelics have political, ontological, sacred, and cultural meaning considering their ties to social and natural territories. Therefore, the consumption of psychedelics that can be observed in the global North is especially harmful as it contributes to a reduction of these values for the purpose of profit, while simultaneously impacting Indigenous groups and their entire worldviews. Such reduction of meanings is essentially inherent in the Western project of 'modernity' that "rely on premises of colonial and capitalist modernity as a universalizing project" (Rojas 2016, 369)—allowing for both the commodification and global spread of psychedelics to prosper. These dynamics were further brought up in my interview with Diana Negrín, when we spoke about a psychedelic retreat centre in Costa Rica:

> This is a business, but it doesn't call itself a business, it calls itself a spiritual community. These people (...) are not seemingly worried about what it means to take peyote from Wirikuta to

> Ecuador. What's the chain of that plant when it becomes a thing? What gets set into motion when these plants become commodities? I do think they're fully commodities within these spiritual circles. It's such a paradox to be calling yourself a mindful, ecological community, when what's at the centre of your community is actually being trafficked and having profound effects in the area.

In other words, for the Wixáritari, to extract psychedelics from their sacred geography is not only about ecological impacts, but it is a breach of their worldview. This is essentially why pluriversal thinking is necessary, as the aim is to contest capitalist and (neo-)colonial notions of universality that allows for the reduction of psychedelics' many meanings in a capitalist setting.

Additionally, the notion of fetishism aids in unveiling how the relation between humans and objects are really about our relations to other humans (Hornborg 2014) as well as ecological impacts of the consumption of said objects. In the case of consumption and global spread of psychedelics, Laura Dev (2020, 11) writes, "when healing only flows in one direction, when plants become capitalist commodities, and when Indigenous healers become wage laborers, we need to consider who is benefiting most from ayahuasca's global popularity". In other words, through the Cartesian illusion that commodities are alienated from their socio-ecological relations producing said commodity, psychedelics are reduced to a commodity of solely monetary value and Indigenous peoples become wage workers for the benefit of consumption in the global North. However, according to Dev, the same Cartesian illusion that has been used over Indigenous peoples by both academia and state institutions through denying the possibility of agency to for example mountains, rocks, and plants that many Indigenous peoples relate to, further contributes to the commodification of psychedelics—and exploitation of Indigenous peoples—through the subjugation of their agency (ibid, 13). Thus, to scrutinise capitalist exploitation and not reduce the versatility of these plants it is necessary to acknowledge both their agency as a plant teacher, as well as scrutinise their assigned, fetishised, agency on the capitalist market.

7.2.2 Ecological Footprint

Having established the political and ontological impacts on Indigenous peoples of the consumption of psychedelics in the global North, it is necessary to highlight the increasing ecological impacts as well. When discussing the commodification of psychedelics, Alex mentioned their concern for the increasing consumption of psychedelics' effect on ecosystems:

> I know that there's a huge issue with consumption since psychedelics have become somewhat of a trend for many and that is a big problem. I know for example that this is the case for the plants used to make ayahuasca as they cannot grow fast enough in relation to the increased demand. I believe that we have a shared responsibility to work against this. It's really about not being greedy. Maybe you want to try something new, but do you have to do it every month? Is it more about greed than necessity?

The ecological impacts of the global spread of psychedelics on Indigenous territories is further highlighted in the paper *The Globalization of Ayahuasca Shamanism and the Erasure of Indigenous Shamanism* where Evgenia Fotiou (2016, 167) writes that "given the current demand for ayahuasca and that the vine takes years to mature, the sustainability of the plants is a legitimate concern". Negrín further argued that this has led to resistance from some Indigenous groups who are questioning the global spread of psychedelics because of the increasing pressure on ecosystems (cf. IPCI Communication Committee 2021; Psychedelic Community 2019). In the interview, Negrín said that this is related to them seeing that psychedelics are becoming yet another commodity in the capitalist system, while having noticeable impacts on their territories and cultures. She explained how:

> There's a group in Columbia, UMIYAC, who are very critical of what they feel is an overexploitation and a whole distortion that is now accompanying *yage,* or ayahuasca, seeing how their sacred plants, historically used to deal with severe trauma these communities have experienced over decades, are being used for non-healing purposes. Especially because it's not just some plentiful thing.

Additionally, Diana Negrín brought up the impact on ecosystems that increased consumption of psychedelics may entail for peyote and Wixárika territory:

> In terms of the environmental life cycle for peyote, we're talking about life cycles and ecosystems that are severely impacted right now. So, what the Wixárika are saying is, "we're not doing peyote conservation, we're protecting the territory", because for Indigenous people it's tied to territory, these ancestral territories, and pilgrimages. The protection of peyote and the conservation of peyote is biocultural. It's not an isolated, individualised thing.

What Negrín mentions here is an important point; the conservation of peyote is biocultural in a sense that for the Wixáritari, it is not only about conserving peyote, but it is about the entire territory where peyote is endemic, considering their ontological perception of the world. The sacred geography and places of the Wixáritari spans over land areas of roughly 120,000 km^2 (see Map 1) that are under threat not only because of an increased consumption of peyote, but

because of capital interest from mining and agricultural companies, as well as tourism (cf. Negrín 2018; Labate and Cavnar 2016). Negrín therefore argued that:

> "At the heart of this is thinking about territory (...) because territory has been fundamentally changed through a property ownership system that is rooted in Western, liberal thinking, carried through the colonial period to the present, I think a lot of the struggle has to do with how these different actors (…) think about and relate to territory".

Map 1: Territorios Sagrados del pueblo Wixárika/Sacred Territories of the Wixárika people (Google, n.d.)

It is therefore necessary to understand that the conservation of peyote, or other psychoactive plants, is not only about the decreasing availability of them, but also impacts from other industries threatening the territories where they are endemic. This is essentially connected to how, for many Indigenous peoples worldwide, the physical, human, and sacred world are interlinked (cf. Foley 2003). As Negrín mentioned above, this is fundamentally different to the property ownership of Western, neoliberal thinking, represented in this case. In a capitalist system, something like land and nature is reduced to solely a means or resource towards the accumulation of capital and wealth and is thus not protected from overexploitation. Arguably, then, when the *set and setting* is the property ownership system of the neoliberal capitalist market, not only are psychedelics at stake but the territory in which they are endemic as well. Returning to Karl Polanyi's (1944) definition of fictitious commodities, it is here evident that it is not only peyote but the social *and* natural contexts it is related to that is in danger. What therefore become particularly interesting about psychedelics, especially in relation to Chapter

6 of this thesis, is what Hornborg (2014, 133) argues, how "the same, ultimately Cartesian illusion liberates consumers to continue devouring distantly derived objects without any significant moral qualms about the social or ecological implications of consumption". In other words, if psychedelics are consumed in the global North as 'nature-connecting agents' to decrease *individual* human alienation from nature, it is arguably ironic how the very idea of alienation from nature is allowing for such consumption to be at the expense of Indigenous people's territories (thus, nature) elsewhere.

As Brian Pace noted in the interview, "if you want to tell both the cultural and actual history of psychedelics (...) eventually you get to colonisation. There wouldn't even be a rediscovery of psychedelics if they weren't suppressed in the first place by the conquistadors". As has been argued throughout this thesis, in a capitalist context, psychedelics cannot be understood solely as a therapeutic technology or nature-connecting agents. They must ultimately be seen as an embodiment of both its natural and social ties, and thus their intelligence as plant teachers, as well as the embodiment of socio-ecological and neo-colonial structures impacting Indigenous groups and territories as well. This is important, as Hornborg (2012, 43) argues, because of how our global, capitalist society is set up, "access to technological objects (i.e., 'development') can simultaneously be conceived as a result of exploitative accumulation and as the politically benevolent emancipation of all humankind". Thus, without a commitment or attention to underlying unequal structures, as well as the epistemic and ontological tensions, it seems inevitable for the emergence of the global psychedelic industry to contribute to further exacerbation of coloniality and ecological impacts. Therefore, as Anya Ermakova & Martin Terry (2020) argues, "what we'd like to see is a move beyond thinking about peyote in solely one category or another; whether it is a natural resource, a trade commodity, a sacrament, a medicine, a Schedule 1 drug, etc. It is all of these, and more. We need a more integrated approach to achieve sustainability".

Chapter 8: Conclusions

Throughout this process, my friends and family have continuously asked me what this thesis is *really* about. My answer to their questions has either been different every time or something vague about psychedelics, the environmental crisis, and the impact of their global spread—and consumption in the global North—on Indigenous territories and ecosystems. The truth is, there is not one simple answer to their question as has been illustrated throughout this thesis; psychedelics are a tale of many tales and as it turns out, there *is* more to the story. Chapter 6 illustrated how psychedelics can be understood as nature-connecting agents through interspecies thinking and increasing human connection with nature. This may in turn be beneficial for the biosphere at large, and thus, the environmental crisis through encouraging pro-environmental behaviour. I therefore argue that if we are serious about the environmental crisis, as well as the territories and knowledge of Indigenous peoples these plants are tied to, it is important to consider their agency in two ways. Firstly, recognising their intelligence as plant teachers as a crucial piece towards the deconstruction of the perceived universality of the 'modern' world towards a world in which many worlds can exist. Secondly, as they enter the capitalist market, their assigned agency as a fetishised technology capable of organising global socio-ecological relations must be taken into account to scrutinise unequal structures.

This ultimately leads me to Chapter 7 which illustrated that it seems inevitable for the creation of a psychedelic industry in the West to not perpetuate unequal, neo-colonial and capitalist structures. What may seem like a positive development in connecting humans with nature in the global North, is at the expense of Indigenous peoples and territories elsewhere. My assertion is therefore that viewing psychedelics as a solution to the environmental crisis "offers an essentially flawed and thus deeply problematic diagnosis of the causes of—and hence solutions for—our urgent environmental problems, reinforcing, as in much environmental advocacy within a neoliberal framework, a focus on individual responsibility and action" (Fletcher 2017, 227) ultimately derailing the responsibility from corporations and our political economy of environmental degradation. My wish is thus for this thesis to aid in inspiring self-reflexivity among proponents of both psychedelics as nature-connecting agents, and the psychedelic industry at large. I do not wish to moralise or dismiss any push or urge to increase human's engagement with the *more-than-human* world—quite the contrary. I am indeed a proponent of a more reciprocal engagement with everything the more-than-human encompasses. My question is rather whether comprehending psychedelics as a solution to the

environmental crisis is in actuality accommodating such aims when neo-colonial capitalism continues to prevail.

Bibliography

Aaronson, Bernard. 1970. *Psychedelics: The Uses and Implications of Hallucinogenic Drugs*. Garden City, NY: Doubleday.

Adams, Matthew. 2020. 'Could Psychedelics Help Us Resolve the Climate Crisis?' The Conversation. 28 January 2020. http://theconversation.com/could-psychedelics-help-us-resolve-the-climate-crisis-129639. [Accessed: 10/05/2021]

Aixalà, Marc, Rafael G. dos Santos, Jaime E. C. Hallak, and José Carlos Bouso. 2018. 'Psychedelics and Personality'. *ACS Chemical Neuroscience* 9 (10): 2304–6. https://doi.org/10.1021/acschemneuro.8b00237.

Alfred, Taiaiake, and Jeff Corntassel. 2005. 'Being Indigenous: Resurgences against Contemporary Colonialism'. *Government and Opposition* 40 (4): 597–614. https://doi.org/10.1111/j.1477-7053.2005.00166.x.

Arregi, Joseba. 2021. 'Plastic Shamans, Intellectual Colonialism and Intellectual Appropriation in New Age Movements'. *The International Journal of Ecopsychology (IJE)* 2 (1). https://digitalcommons.humboldt.edu/ije/vol2/iss1/10.

Austin, Paul. 2019. 'Soltara Healing Center Review - Retreat Center in Costa Rica'. *Third Wave* (blog). 28 June 2019. https://thethirdwave.co/soltara-ayahuasca-retreat/. [Accessed: 30/04/2021]

Bakker, Karen. 2010. 'The Limits of "Neoliberal Natures": Debating Green Neoliberalism'. *Progress in Human Geography* 34 (6): 715–35. https://doi.org/10.1177/0309132510376849.

Baudrillard, Jean. 1981. *For a Critique of the Political Economy of the Sign*. St. Louis, MO: Telos Press.

———. 1994. *Simulacra and Simulation*. The Body, in Theory. Ann Arbor: University of Michigan Press.

Bauman, Richard, and Charles L. Briggs. 1990. 'Poetics and Performances as Critical Perspectives on Language and Social Life'. *Annual Review of Anthropology* 19 (1): 59–88. https://doi.org/10.1146/annurev.an.19.100190.000423.

Belouin, Sean J., and Jack E. Henningfield. 2018. 'Psychedelics: Where We Are Now, Why We Got Here, What We Must Do'. *Neuropharmacology* 142 (November): 7–19. https://doi.org/10.1016/j.neuropharm.2018.02.018.

Benzinga. 2020. 'Cybin Corp: Canada's Largest Go-Public Financing In The Psychedelics Sector | Benzinga'. 27 October 2020. https://www.benzinga.com/markets/cannabis/20/10/18063670/cybin-corp-canadas-largest-go-public-financing-in-the-psychedelics-sector. [Accessed: 12/05/2021]

Bloomberg. 2020. 'Multi-Billion-Dollar Market Forecast in Psychedelic Therapeutics'. *Bloomberg.Com*, 14 October 2020. https://www.bloomberg.com/press-releases/2020-10-14/multi-billion-dollar-market-forecast-in-psychedelic-therapeutics. [Accessed:

29/04/2021]

Bogner, A., B. Littig, and W. Menz. 2009. *Interviewing Experts*. Springer.

Bookchin, Murray. 1989. 'Death of a Small Planet'.

Bryman, Alan. 2012. *Social Research Methods, 4th Edition*. 4th edition. Oxford ; New York: Oxford University Press.

Byskov, Morten Fibieger. 2019. 'Focusing on How Individuals Can Stop Climate Change Is Very Convenient for Corporations'. Fast Company. 11 January 2019. https://www.fastcompany.com/90290795/focusing-on-how-individuals-can-stop-climate-change-is-very-convenient-for-corporations. [Accessed: 04/05/2021]

Carhart-Harris, Robin L, Leor Roseman, Eline Haijen, David Erritzoe, Rosalind Watts, Igor Branchi, and Mendel Kaelen. 2018. 'Psychedelics and the Essential Importance of Context'. *Journal of Psychopharmacology* 32 (7): 725–31. https://doi.org/10.1177/0269881118754710.

Casaló, Luis V., and José-Julián Escario. 2018. 'Heterogeneity in the Association between Environmental Attitudes and Pro-Environmental Behavior: A Multilevel Regression Approach'. *Journal of Cleaner Production* 175 (February): 155–63. https://doi.org/10.1016/j.jclepro.2017.11.237.

Castree, Noel. 2003. 'Commodifying What Nature?' *Progress in Human Geography* 27 (3): 273–97. https://doi.org/10.1191/0309132503ph428oa.

Charmaz, Kathy. 1983. 'The Grounded Theory Method: An Explication and Interpretation'. In *Contemporary Field Research: A Collection of Readings*, edited by Robert M. Emerson, 368. Little, Brown.

———. 2006. *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. SAGE.

Cronon, William. 1996. 'The Trouble with Wilderness: Or, Getting Back to the Wrong Nature'. *Environmental History* 1 (1): 7. https://doi.org/10.2307/3985059.

Crutzen, Paul J. 2006. 'The "Anthropocene"'. In *Earth System Science in the Anthropocene*, edited by Eckart Ehlers and Thomas Krafft, 13–18. Berlin/Heidelberg: Springer-Verlag. https://doi.org/10.1007/3-540-26590-2_3.

Dazed Digital. 2020. 'What Would You Do If You Were President for a Day?' Dazed. 30 October 2020. https://www.dazeddigital.com/politics/article/50937/1/what-would-you-do-if-you-were-president-for-a-day. [10/05/2021]

Dean, Bartholomew. 2009. *Urarina Society, Cosmology, and History in Peruvian Amazonia*. Gainesville, Fla.: University Press of Florida. http://dx.doi.org/10.5744/florida/9780813033785.001.0001.

Dev, Laura. 2018. 'Plant Knowledges: Indigenous Approaches and Interspecies Listening Toward Decolonizing Ayahuasca Research'. In *Plant Medicines, Healing and*

Psychedelic Science, edited by Beatriz Caiuby Labate and Clancy Cavnar, 185–204. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-76720-8_11.

———. 2020. ‘Plants & Pathways: More-than-Human Worlds of Power, Knowledge, and Healing’. UC Berkeley. https://escholarship.org/uc/item/4mk4m4bv.

Elephantos. 2021a. ‘Ayahuasca For Sale: Intense Transformational Trip | Elephantos’. 2021. https://www.elephantos.com/en/smart-shop/ayahuasca. [Accessed: 14/05/2021]

———. 2021b. ‘Psychedelic Cactus 🌵: Growkits, Seeds and Edibles | Elephantos’. 2021. https://www.elephantos.com/en/smart-shop/psychedelic-cactus. [Accessed: 14/05/2021]

Ermakova, Anya, and Martin Terry. 2020. ‘A Word in Edgewise About the Sustainability of Peyote’. *Chacruna*, 12 May 2020. https://chacruna.net/a-word-in-edgewise-about-the-sustainability-of-peyote/. [Accessed: 14/05/2021]

Erritzoe, D., L. Roseman, M. M. Nour, K. MacLean, M. Kaelen, D. J. Nutt, and R. L. Carhart-Harris. 2018. ‘Effects of Psilocybin Therapy on Personality Structure’. *Acta Psychiatrica Scandinavica* 138 (5): 368–78. https://doi.org/10.1111/acps.12904.

Escobar, Arturo. 2007. ‘WORLDS AND KNOWLEDGES OTHERWISE: The Latin American Modernity/Coloniality Research Program’. *Cultural Studies* 21 (2–3): 179–210. https://doi.org/10.1080/09502380601162506.

———. 2018. *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. New Ecologies for the Twenty-First Century. Durham: Duke University Press.

Evernden, Lorne Leslie Neil. 1993. *The Natural Alien: Humankind and Environment*. University of Toronto Press.

Feeney, Kevin. 2017. ‘Peyote as Commodity: An Examination of Market Actors and Access Mechanisms’. *Human Organization* 76 (1): 59–72. https://doi.org/10.17730/0018-7259.76.1.59.

Feeney, Kevin, Beatriz Caiuby Labate, and J. Hamilton Hudson. 2018. ‘Bubbling with Controversy: Legal Challenges for Ceremonial Ayahuasca Circles in the United States’. In *Plant Medicines, Healing and Psychedelic Science: Cultural Perspectives*, edited by Beatriz Caiuby Labate and Clancy Cavnar, 87–111. Cham, Switzerland: Springer International Publishing.

Ferguson, Iain. 2017. *Politics of the Mind: Marxism and Mental Distress*. London: Bookmarks Publications.

Fletcher, Robert. 2017. ‘Connection with Nature Is an Oxymoron: A Political Ecology of “Nature-Deficit Disorder”’. *The Journal of Environmental Education* 48 (4): 226–33. https://doi.org/10.1080/00958964.2016.1139534.

Foley, Dennis. 2003. ‘Indigenous Epistemology and Indigenous Standpoint Theory’. *Social Alternatives*, December. https://search.informit.org/doi/abs/10.3316/ielapa.200305132.

Folke, Carl, Åsa Jansson, Johan Rockström, Per Olsson, Stephen R. Carpenter, F. Stuart Chapin, Anne-Sophie Crépin, et al. 2011. 'Reconnecting to the Biosphere'. *AMBIO* 40 (7): 719. https://doi.org/10.1007/s13280-011-0184-y.

Forstmann, Matthias, and Christina Sagioglou. 2017. 'Lifetime Experience with (Classic) Psychedelics Predicts pro-Environmental Behavior through an Increase in Nature Relatedness'. *Journal of Psychopharmacology* 31 (8): 975–88. https://doi.org/10.1177/0269881117714049.

Foster, John Bellamy. 1999. 'Marx's Theory of Metabolic Rift: Classical Foundations for Environmental Sociology'. *American Journal of Sociology* 105 (2): 366–405. https://doi.org/10.1086/210315.
———. 2000. *Marx's Ecology: Materialism and Nature*. NYU Press.

Foster, John Bellamy, Brett Clark, and Richard York. 2010. *The Ecological Rift: Capitalism's War on the Earth*. New York: Monthly Review Press.

Fotiou, Evgenia. 2016. 'The Globalization of Ayahuasca Shamanism and the Erasure of Indigenous Shamanism'. *Anthropology of Consciousness* 27 (2): 151–79. https://doi.org/10.1111/anoc.12056.
———. 2020. 'The Role of Indigenous Knowledges in Psychedelic Science'. *Journal of Psychedelic Studies* 4 (1): 16–23. https://doi.org/10.1556/2054.2019.031.

Gandy, Sam, Rosalind Watts, and Alex Evans. 2019. 'Could Psychedelics Help to Heal the Crisis of Disconnection? - Emerge', 22 October 2019. https://www.whatisemerging.com/opinions/the-disconnection-connection. [Accessed: 14/05/2021]

Gasser, Peter, Katharina Kirchner, and Torsten Passie. 2015. 'LSD-Assisted Psychotherapy for Anxiety Associated with a Life-Threatening Disease: A Qualitative Study of Acute and Sustained Subjective Effects'. *Journal of Psychopharmacology* 29 (1): 57–68. https://doi.org/10.1177/0269881114555249.

George, Jamilah R., Timothy I. Michaels, Jae Sevelius, and Monnica T. Williams. 2019. 'The Psychedelic Renaissance and the Limitations of a White-Dominant Medical Framework: A Call for Indigenous and Ethnic Minority Inclusion'. *Journal of Psychedelic Studies* 4 (1): 4–15. https://doi.org/10.1556/2054.2019.015.

Google. n.d., 'Territorios Sagrados del pueblo Wixárika/Sacred Territories of the Wixárika people'. Map. Retrieved from: https://www.google.com/maps/d/u/0/edit?mid=1rKERW2nPzET4P_I2Oya7skeSLTdzpqO6&ll=22.248584743528976%2C-103.07125045&z=7 [Accessed: 17/05/2021]

Goldhill, Olivia. 2018. 'Psilocybin Academic Research: Scientists Pay Thousands per Gram — Quartz', 24 March 2018. https://qz.com/1235963/scientists-who-want-to-study-psychedelic-mushrooms-have-to-pay-7000-per-gram/. [Accessed: 14/05/2021]

Gómez-Barris, Macarena. 2017. *The Extractive Zone: Social Ecologies and Decolonial Perspectives*. Duke University Press.

Griffin, Dr Paul. 2017. 'CDP Carbon Majors Report 2017', 16. https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf. [Accessed 30/04/2021]

Haraway, Donna. 1988. 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective'. *Feminist Studies* 14 (3): 575. https://doi.org/10.2307/3178066.

Haraway, Donna Jeanne. 2003. *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Paradigm 8. Chicago: Prickly Paradigm Press.

Hausfeld, Russell. 2020. 'Will Extractive Industry Bring Its Disregard for Indigenous People Into The Psychedelic Industry?' Psymposia. 3 November 2020. http://www.psymposia.com/magazine/mining-to-mushrooms-2-extractive-industry-argentina-lithium-indigenous-psychedelics/. [Accessed: 09/05/2021]

Hofmann, Albert. 2013. *LSD and the Divine Scientist: The Final Thoughts and Reflections of Albert Hofmann*. First U.S. edition. Rochester, Vermont: Park Street Press.

Hollander, Kurt. 2017. 'Battle in the Mexican Desert: Silver Mining against Peyote and Indigenous Spirituality'. 30 May 2017. https://theecologist.org/2017/may/30/battle-mexican-desert-silver-mining-against-peyote-and-indigenous-spirituality. [Accessed: 13/05/2021]

Hornborg, Alf. 2012. *Global Ecology and Unequal Exchange: Fetishism in a Zero-Sum World*. Routledge.

———. 2014. 'Technology as Fetish: Marx, Latour, and the Cultural Foundations of Capitalism'. *Theory, Culture & Society* 31 (4): 119–40. https://doi.org/10.1177/0263276413488960.

———. 2017. 'Dithering While the Planet Burns: Anthropologists' Approaches to the Anthropocene'. *Reviews in Anthropology* 46 (2–3): 61–77. https://doi.org/10.1080/00938157.2017.1343023.

Horne, Alex. 2014. 'Will "Smart Drugs" Really Make Us Smarter, or Just Ruin Our Lives?', 25 March 2014. https://www.vice.com/en/article/jmb5d8/nootropics-smart-drugs. [Accessed: 16/05/2021]

IPCI Communication Committee. 2021. 'Open Letter to the Psychedelic Movement Regarding Peyote in Policy Efforts and How to Be an Ally to Indigenous Peoples of North America'. *Chacruna*, 10 May 2021, sec. Policy. https://chacruna.net/ipci_open_letter_psychedelic_movement_peyote_decriminalization/. [Accessed: 15/05/2021]

Ives, Christopher D., David J. Abson, Henrik von Wehrden, Christian Dorninger, Kathleen Klaniecki, and Joern Fischer. 2018. 'Reconnecting with Nature for Sustainability'. *Sustainability Science* 13 (5): 1389–97. https://doi.org/10.1007/s11625-018-0542-9.

Ives, Christopher D., Rebecca Freeth, and Joern Fischer. 2020. 'Inside-out Sustainability: The

Neglect of Inner Worlds'. *Ambio* 49 (1): 208–17. https://doi.org/10.1007/s13280-019-01187-w.

Jelsma, Martin, and Amira Armenta. 2015. 'The UN Drug Control Conventions'. 1st edition. Transnational Institute. https://www.tni.org/files/publication-downloads/primer_unconventions_24102015.pdf. [Accessed: 16/05/2021]

Jönsson, Erik, and Elina Andersson. 2017. 'Politisk ekologi: en produktiv spretighet?' In *Politisk ekologi: Om makt och miljöer*, Upplaga 1:1, 376. Lund: Studentlitteratur.

Jungaberle, Henrik, Sascha Thal, Andrea Zeuch, Ansgar Rougemont-Bücking, Maximilian von Heyden, Helena Aicher, and Milan Scheidegger. 2018. 'Positive Psychology in the Investigation of Psychedelics and Entactogens: A Critical Review'. *Neuropharmacology* 142 (November): 179–99. https://doi.org/10.1016/j.neuropharm.2018.06.034.

Kaldor, Nicholas. 1961. 'Capital Accumulation and Economic Growth'. In *The Theory of Capital: Proceedings of a Conference Held by the International Economic Association*, edited by F. A. Lutz and D. C. Hague, 177–222. International Economic Association Series. London: Palgrave Macmillan UK. https://doi.org/10.1007/978-1-349-08452-4_10.

Kellert, Stephen R., and Edward O. Wilson, eds. 1993. *The Biophilia Hypothesis*. Washington, D.C: Island Press.

Kelly, Jack. 2020. 'Silicon Valley Is Micro-Dosing "Magic Mushrooms" To Boost Their Careers'. 2020. https://www.forbes.com/sites/jackkelly/2020/01/17/silicon-valley-is-micro-dosing-magic-mushrooms-to-boost-their-careers/?sh=7dc922b75822. [Accessed: 30/04/2021]

Kettner, Hannes, Sam Gandy, Eline C. H. M. Haijen, and Robin L. Carhart-Harris. 2019. 'From Egoism to Ecoism: Psychedelics Increase Nature Relatedness in a State-Mediated and Context-Dependent Manner'. *International Journal of Environmental Research and Public Health* 16 (24): 5147. https://doi.org/10.3390/ijerph16245147.

Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology beyond the Human*. Berkeley: University of California Press.

Kothari, Ashish, Ariel Salleh, Arturo Escobar, Federico Demaria, and Alberto Acosta, eds. 2019. *Pluriverse: A Post-Development Dictionary*. New Delhi: Tulika Books and Authorsupfront.

Krebs, Teri S, and Pål-Ørjan Johansen. 2012. 'Lysergic Acid Diethylamide (LSD) for Alcoholism: Meta-Analysis of Randomized Controlled Trials'. *Journal of Psychopharmacology* 26 (7): 994–1002. https://doi.org/10.1177/0269881112439253.

Labate, Beatriz Caiuby, and Clancy Cavnar, eds. 2014. *Ayahuasca Shamanism in the Amazon and Beyond*. Oxford Ritual Studies. Oxford ; New York: Oxford University Press.

———, eds. 2016. *Peyote: History, Tradition, Politics, and Conservation*. Santa Barbara, California: Praeger, an imprint of ABC-CLIO, LLC.

———, eds. 2018. *Plant Medicines, Healing and Psychedelic Science: Cultural Perspectives*. Cham, Switzerland: Springer International Publishing. https://doi.org/10.1007/978-3-319-76720-8.

Laure Vidriales, Arturo, and Diego Hannon Ovies. 2018. 'Psychedelic Tourism in Mexico, a Thriving Trend'. https://doi.org/10.25145/j.pasos.2018.16.072.

Le Grange, Lesley, and Carl Mika. 2018. 'What Is Indigenous Philosophy and What Are Its Implications for Education'. In *International Handbook of Philosophy of Education*, edited by Paul Smeyers, 499–515. Springer International Handbooks of Education. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-72761-5_41.

Lebedev, A.V., M. Kaelen, M. Lövdén, J. Nilsson, A. Feilding, D.J. Nutt, and R.L. Carhart-Harris. 2016. 'LSD-Induced Entropic Brain Activity Predicts Subsequent Personality Change: LSD-Induced Entropic Brain Activity'. *Human Brain Mapping* 37 (9): 3203–13. https://doi.org/10.1002/hbm.23234.

Love, Shayla. 2021. 'Can a Company Patent the Basic Components of Psychedelic Therapy?', 9 February 2021. https://www.vice.com/en/article/93wmxv/can-a-company-patent-the-basic-components-of-psychedelic-therapy. [Accessed: 14/05/2021]

Luke, David. 2019. 'Eco-Consciousness, Species Connectedness and the Psychedelic Experience'. In *Greening the Paranormal: Exploring the Ecology of Exceptional Experience*, edited by Jack Hunter, 181–88. London: White Crow Books.

Lyons, Taylor, and Robin L Carhart-Harris. 2018. 'Increased Nature Relatedness and Decreased Authoritarian Political Views after Psilocybin for Treatment-Resistant Depression'. *Journal of Psychopharmacology* 32 (7): 811–19. https://doi.org/10.1177/0269881117748902.

Malm, Andreas, and Alf Hornborg. 2014. 'The Geology of Mankind? A Critique of the Anthropocene Narrative'. *The Anthropocene Review* 1 (1): 62–69. https://doi.org/10.1177/2053019613516291.

Maniates, Michael F. 2001. 'Individualization: Plant a Tree, Buy a Bike, Save the World?' *Global Environmental Politics* 1 (3): 31–52. https://doi.org/10.1162/152638001316881395.

Martin, Leanne, Mathew P. White, Anne Hunt, Miles Richardson, Sabine Pahl, and Jim Burt. 2020. 'Nature Contact, Nature Connectedness and Associations with Health, Wellbeing and pro-Environmental Behaviours'. *Journal of Environmental Psychology* 68 (April): 101389. https://doi.org/10.1016/j.jenvp.2020.101389.

Marx, Karl. 1867. *Das Kapital: a Critique of Political Economy.* Regnery.

Mayer, F. Stephan, and Cynthia McPherson Frantz. 2004. 'The Connectedness to Nature Scale: A Measure of Individuals' Feeling in Community with Nature'. *Journal of Environmental Psychology* 24 (4): 503–15.

https://doi.org/10.1016/j.jenvp.2004.10.001.

Merchant, Carolyn. 1990. *The Death of Nature: Women, Ecology, and the Scientific Revolution*. Reprint edition. New York: HarperOne.

Mignolo, Walter D. 2011. *The Darker Side of Western Modernity: Global Futures, Decolonial Options*. Duke University Press. https://doi.org/10.1515/9780822394501.

Mignolo, Walter D., and Michael Ennis. 2001. 'Coloniality at Large: The Western Hemisphere in the Colonial Horizon of Modernity'. *CR: The New Centennial Review* 1 (2): 19–54.

Moore, Jason W., ed. 2016. *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*. Kairos. Oakland, CA: PM Press.

Negrín da Silva, Diana. 2018. '"It Is Loved and It Is Defended": Critical Solidarity Across Race and Place'. *Antipode* 50 (4): 1016–36. https://doi.org/10.1111/anti.12396.

Negrín, Diana. 2018. 'Territory, Roots and Conflict: Epistemic Encounters on Sacred Plants'. *Chacruna*, 15 March 2018. https://chacruna.net/territory-roots-conflict-epistemic-encounters-sacred-plants/. [Accessed: 15/05/2021]

Nevins, Joseph, and Nancy Lee Peluso. 2018. *Introduction: Commoditization in Southeast Asia*. *Taking Southeast Asia to Market*. Cornell University Press.

Nisbet, Elizabeth K., and John M. Zelenski. 2014. 'Nature Relatedness and Subjective Well-Being'. In *Encyclopedia of Quality of Life and Well-Being Research*, edited by Alex C. Michalos, 4269–76. Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-007-0753-5_3909.

Nisbet, Elizabeth K., John M. Zelenski, and Steven A. Murphy. 2009. 'The Nature Relatedness Scale: Linking Individuals' Connection With Nature to Environmental Concern and Behavior'. *Environment and Behavior* 41 (5): 715–40. https://doi.org/10.1177/0013916508318748.

Norgaard, Kari Marie. 2011. *Living in Denial: Climate Change, Emotions, and Everyday Life*. MIT Press.

Nour, Matthew M., Lisa Evans, and Robin L. Carhart-Harris. 2017. 'Psychedelics, Personality and Political Perspectives'. *Journal of Psychoactive Drugs* 49 (3): 182–91. https://doi.org/10.1080/02791072.2017.1312643.

Nutt, David J., Leslie A. King, and David E. Nichols. 2013. 'Effects of Schedule I Drug Laws on Neuroscience Research and Treatment Innovation'. *Nature Reviews Neuroscience* 14 (8): 577–85. https://doi.org/10.1038/nrn3530.

Obery, Amanda, and Arthur Bangert. 2017. 'Exploring the Influence of Nature Relatedness and Perceived Science Knowledge on Proenvironmental Behavior'. *Education Sciences* 7 (1): 17. https://doi.org/10.3390/educsci7010017.

Ollman, Bertell. 1993. *Dialectical Investigations*. New York: Routledge.

Orange, Donna M. 2016. *Climate Crisis, Psychoanalysis, and Radical Ethics*. 1st edition. London ; New York: Routledge.

Packalén, Sture. 2010. 'Culture and Sustainability'. *Corporate Social Responsibility and Environmental Management*, n/a-n/a. https://doi.org/10.1002/csr.236.

Peck, Jules. 2020. 'Psychedelics for Systems Change: Could Drugs Help Us Save the Planet?' OpenDemocracy. 15 February 2020. https://www.opendemocracy.net/en/oureconomy/psychedelics-systems-change-could-drugs-help-us-save-planet/. [Accessed: 10/05/2021]

Peet, Richard, Paul Robbins, and Michael Watts. 2011. 'Global Nature'. In *Global Political Ecology*. London; New York: Routledge.

Perreault, Tom, Gavin Bridge, and James McCarthy. 2015. *The Routledge Handbook of Political Ecology*. Routledge.

Petri, G., P. Expert, F. Turkheimer, R. Carhart-Harris, D. Nutt, P. J. Hellyer, and F. Vaccarino. 2014. 'Homological Scaffolds of Brain Functional Networks'. *Journal of The Royal Society Interface* 11 (101): 20140873. https://doi.org/10.1098/rsif.2014.0873.

Plumwood, Val. 2002. *Environmental Culture: The Ecological Crisis of Reason*. Psychology Press.

Polanyi, Karl. 1944. *The Great Transformation: The Political and Economic Origins of Our Time*. 1st ed. Boston, MA: Beacon Press.

Pollan, Michael. 2018. *How to Change Your Mind: What the New Science of Psychedelics Teaches Us about Consciousness, Dying, Addiction, Depression, and Transcendence*. New York: Penguin Press.

Priyadharshini, Esther. 2003. 'Coming Unstuck: Thinking Otherwise about "Studying Up"'. *Anthropology & Education Quarterly* 34 (4): 420–37. https://doi.org/10.1525/aeq.2003.34.4.420.

Psilocybin Alpha. 2021. 'Psilocybin Patent Tracker'. Psilocybin Alpha. 2021. https://psilocybinalpha.com/data/psilocybin-patent-tracker. [Accessed: 14/05/2021]

Psychedelic Community. 2019. 'How Sustainable Is The Ever More Popular Use Of Ayahuasca?' *Medium*, 4 March 2019. https://medium.com/samadhi-today/sustainability-in-the-new-era-of-ayahuasca-a77d97399605. [Accessed: 15/05/2021]

Quijano, Aníbal. 2000. 'Coloniality of Power and Eurocentrism in Latin America'. *International Sociology* 15 (2): 215–32. https://doi.org/10.1177/0268580900015002005.

retreat.guru. 2021a. ‘10-Day Ayahuasca Retreat in Nauta, Peru | May 16 - 25, 2021’. Retreat Guru. 2021. http://retreat.guru/events/848-675/10-day-ayahuasca-retreat-master-plants-dieta-in-peru-11. [Accessed: 14/05/2021]

———. 2021b. ‘91-Day Shamanic Retreat in Rurrenabaque, Bolivia | 91 Days Package’. Retreat Guru. 2021. http://retreat.guru/events/844-716/3-5-month-specially-discounted-deep-healing-intensive-training-retreat-andes-jungle-bolivia. [Accessed: 14/05/2021]

———. 2021c. ‘Retreat Guru: Meditation & Ayahuasca Retreats, Yoga Holidays’. Retreat Guru. 2021. http://retreat.guru/. [Accessed: 14/05/2021]

Robbins, Paul. 2011. *Political Ecology: A Critical Introduction*. John Wiley & Sons.

Rojas, Cristina. 2016. ‘Contesting the Colonial Logics of the International: Toward a Relational Politics for the Pluriverse’. *International Political Sociology* 10 (4): 369–82. https://doi.org/10.1093/ips/olw020.

Roszak, Theodore. 1995. *The Making of a Counter Culture: Reflections on the Technocratic Society and Its Youthful Opposition*. 1st California pbk. ed. Berkeley: University of California Press.

Roszak, Theodore, Mary E. Gomes, and Allen D. Kanner, eds. 1995. *Ecopsychology: Restoring the Earth, Healing the Mind*. Ecopsychology: Restoring the Earth, Healing the Mind. San Francisco, CA, US: Sierra Club Books.

Sabina, María, and R. Gordon Wasson. 1974. *María Sabina and her Mazatec mushroom velada*. Ethno-mycological studies, no. 3. New York: Harcourt Brace Jovanovich.

Said, Edward W. 1978. *Orientalism*. 1st Vintage Books ed. New York: Vintage Books.

Salmons, Janet. 2016. *Doing Qualitative Research Online*. 1 Oliver’s Yard, 55 City Road London EC1Y 1SP: SAGE Publications Ltd. https://doi.org/10.4135/9781473921955.

Sharma, Kavita, and Monika Bansal. 2013. ‘Environmental Consciousness, Its Antecedents and Behavioural Outcomes’. *Journal of Indian Business Research* 5 (3): 198–214. https://doi.org/10.1108/JIBR-10-2012-0080.

Soltara. 2021. ‘Soltara Healing Center Ayahuasca Retreats In Costa Rica’. 2021. https://soltara.co/. [Accessed: 14/05/2021]

Stamets, Paul. 1996. *Psilocybin Mushrooms of the World: An Identification Guide*. Berkeley, California: Ten Speed Press.

Stevens, John Paul. 2012. ‘Glittering Generalities and Historical Myths Brandeis Lecture’. *University of Louisville Law Review* 51 (3): 419–28.

Strauss, Anselm, and Juliet Corbin. 1994. ‘Grounded Theory Methodology: An Overview’. In *Handbook of Qualitative Research*, 273–85. Thousand Oaks, CA, US: Sage Publications, Inc.

Sturgeon, No‘l. 2009. *Environmentalism in Popular Culture: Gender, Race, Sexuality, and the Politics of the Natural*. University of Arizona Press.

TallBear, Kim. 2011. ‘Why Interspecies Thinking Needs Indigenous Standpoints’. Society for Cultural Anthropology. 2011. https://culanth.org/fieldsights/why-interspecies-thinking-needs-indigenous-standpoints. [Accessed: 28/04/2021]

Tanne, Janice Hopkins. 2004. ‘Humphry Osmond: Psychiatrist Who Investigated LSD, “Turned on” Aldous Huxley, and Coined the Word “Psychedelic”’. *BMJ: British Medical Journal* 328 (7441): 713–713.

Taussig, Michael T. 1987. *Shamanism, Colonialism, and the Wild Man: A Study in Terror and Healing*. Chicago: University of Chicago Press.

Todd, Zoe. 2016. ‘An Indigenous Feminist’s Take On The Ontological Turn: “Ontology” Is Just Another Word For Colonialism: An Indigenous Feminist’s Take on the Ontological Turn’. *Journal of Historical Sociology* 29 (1): 4–22. https://doi.org/10.1111/johs.12124.

Tonkinwise, Cameron. 2015. ‘Design for Transitions – from and to What?’ *Design Philosophy Papers* 13 (1): 85–92. https://doi.org/10.1080/14487136.2015.1085686.

Tsing, Anna. 2012. ‘Unruly Edges: Mushrooms as Companion Species: For Donna Haraway’. *Environmental Humanities* 1 (1): 141–54. https://doi.org/10.1215/22011919-3610012.

Tsing, Anna Lowenhaupt. 2005. *Friction: An Ethnography of Global Connection*. Princeton, N.J: Princeton University Press.

Vogel, Steven. 2015. *Thinking like a Mall: Environmental Philosophy after the End of Nature*. MIT Press.

Wackernagel, Mathis, Bert Beyers, and Katharina Rout. 2019. *Ecological Footprint: Managing Our Biocapacity Budget*. New Society Publishers.

Wackernagel, Mathis, and William Rees. 1998. *Our Ecological Footprint: Reducing Human Impact on the Earth*. New Society Publishers.

Whyte, Kyle. 2017. ‘Indigenous Climate Change Studies : Indigenizing Futures, Decolonizing the Anthropocene’. *English Language Notes* 55 (1): 153–62.

WWF. 2018. *Living Planet Report*. Edited by Monique Grooten and Rosamunde Almond. Gland, Switzerland: WWF. [Accessed: 12/05/2021]

Appendix

Appendix I:

Interview guide: interviews with researchers

Topics to cover with everyone

- Psychedelics and human-nature connectedness
- Psychedelic industry and capitalism
- Psychedelics and Indigenous groups

Questions for Sam Gandy and David Luke:

- What exactly is it that can facilitate nature-connectedness?
- What's the connection between psychedelics and ecology?
- Can you tell me a little bit about the relationship between nature connection and pro-environmental behaviour?
- What can you tell me about psychedelics and nature-connectedness in relation to capitalism?
- What are your thoughts on the relationship between psychedelic consumption and Indigenous groups?
- Why/is it important that we as humans connect with nature? Especially beyond individual benefits and more in relation to the biosphere

Questions for Brian Pace:

- What can you tell me about the cultural baggage of psychedelics, and their relationship to the psychedelic renaissance?
- You often write about the material conditions of our capitalist society. Why is that important in relation to the psychedelic renaissance?
- What are your thoughts on using psychedelics to increase human-nature connectedness?
- Can you tell me about the relationship between the psychedelic industry, capitalism and the renaissance?
- Would you say that human alienation from nature is connected to the ecological crisis? And could psychedelics have anything to do with reversing that?

Questions for Diana Negrín:

- How would you say that the psychedelic industry is impacting Indigenous groups and territories?
- How can we talk about psychedelics in a grounded, evidence-based way that integrates western scientific research, ancient and indigenous knowledge, and shamanic states of consciousness?
- What are some uses of peyote that is important for Wixarika that goes beyond the psychedelic experience as we know it in a western context?
- What role would you say that Western and non-indigenous researchers/research has in ensuring a reciprocal relationship with indigenous knowledge and communities?