

Fantastic Fungi and Her Fickle Foes: Psychedelic Use and Western Medicine's Disparate Impact on Indigenous Communities

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Given recent breakthroughs in psilocybin therapy, there is a preponderance of evidence indicating that the world is on the precipice of a mental health renaissance; for the first time ever, there is confirmation of treatment that can potentially cure some of society's worst mental illnesses. However, it is in danger of being the latest "cash crop" for big pharma. For hundreds of years, indigenous communities faced backlash for their beliefs. Now, their practices are being stolen, exploited, and repackaged to serve Western medicine's needs.

This paper advocates for an ethical approach to the legalization and implementation of psilocybin therapy, urging corporations to recognize and reciprocate the indigenous roots of these practices. Drawing on a critical indigenous lens, this paper explores the challenges arising from the privatization of psychedelic research and the clash with indigenous knowledge within the current U.S. intellectual property framework. It proposes ethical solutions within the psychedelic field, referencing the Convention on Biological Diversity and Nagoya Protocol as potential frameworks to address commercialization issues. This paper also argues indigenous reciprocity is a crucial marker distinguishing conscientious healthcare from pharmaceutical gluttony and that indigenous reciprocity should be a fundamental component of psychedelic medicine.

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I. BACKGROUND

Psychedelic¹ plants and fungi have a rich history of use within the traditions and cultures of numerous indigenous groups. In pre-Columbian Mesoamerica,² various plants, cacti, and mushrooms were utilized in healing rituals and religious ceremonies to induce altered states of consciousness.³ Some examples include the *Banisteriopsis caapi* vine (commonly known as ayahuasca),⁴ peyote

¹ John Philip Jenkins, *Psychedelic Drug*, ENCYCLOPEDIA BRITANNICA (Sep. 13, 2022), <https://www.britannica.com/science/psychedelic-drug> (describing psychedelics as “drugs that are able to induce states of altered perception and thought, frequently with heightened awareness of sensory input but with diminished control over what is being experienced.”).

² Thomas C. Patterson et al., *Pre-Columbian Civilizations*, ENCYCLOPEDIA BRITANNICA (Jun. 14, 2023), <https://www.britannica.com/topic/pre-Columbian-civilizations> (defining pre-Columbian Mesoamerican civilizations as “the aboriginal American Indian cultures that evolved in Mesoamerica (part of Mexico and Central America) and the Andean region (western South America) prior to Spanish exploration and conquest in the 16th century”).

³ F.J. Carod-Artal, *Hallucinogenic Drugs in Pre-Columbian Mesoamerican Cultures*, 30 *Servicio de Neurología* 42 (2015).

⁴ See Beatriz Werneck Lopes Santos et al., *Components of Banisteriopsis caapi, a Plant Used in the Preparation of the Psychoactive Ayahuasca, Induce Anti-Inflammatory Effects in Microglial Cells*, 27 *MOLECULES* 2500 (2022) (explaining how the “*Banisteriopsis caapi* is used to prepare the psychoactive beverage ayahuasca”).

cactus,⁵ and mushrooms of the *Psilocybe* genus.⁶ While the origins of its use are lost to time, there is evidence dating Ayahuasca use back 1000 years.⁷ The psychotropic properties of peyote were used as far back as 5700 years by Native Americans.⁸ Certain mushrooms, which Aztecs knew by the name *teonanácatl*, were revered as the “flesh of the gods” or “God’s flesh.”⁹ Mushroom stones from rituals dating back to 3000 BC have been discovered in Mesoamerica.¹⁰

With the onset of colonialism¹¹ came the subsequent impacts on these traditional practices and the commercialization of sacred rituals. Peru has become the center of cultural tourism due to its ayahuasca rituals.¹² Western¹³ tourists have and still continue to shell out thousands of dollars to visit white, foreign-owned retreats in Peru, complete with free Wi-Fi and yoga sessions.¹⁴ As this “spiritual tourism” has boomed, the Amazonian vine known as *Banisteriopsis caapi*¹⁵ is becoming increasingly difficult to source.¹⁶

⁵ Jan G. Bruhn et al., Letter to the Editor, *Mescaline Use for 5700 Years*, 359 THE LANCET 1789, 1866 (May 25, 2002).

⁶ Virginia Ramírez-Cruz et al., *Phylogenetic Inference and Trait Evolution of the Psychedelic Mushroom Genus *Psilocybe Sensu Lato* (Agaricales)*, 91 BOTANY 573, 573 (2013) (describing “the group of mushroom-forming fungi famous for its neurotropic use, especially in sacred religious ceremonies”).

⁷ Erin Blakemore, *Ancient Hallucinogens Found in 1,000-year-old Shamanic Pouch*, NAT’L GEOGRAPHIC (May 6, 2019), https://www.nationalgeographic.com/culture/article/ancient-hallucinogens-oldest-ayahuasca-found-shaman-pouch_.

⁸ Bruhn et al., *supra* note 5.

⁹ David E. Nichols, *Psilocybin: From Ancient Magic to Modern Medicine*, 73 J. ANTIBIOTICS 679 (2020).

¹⁰ Carod-Artal, *supra* note 3.

¹¹ Shreya Shah, *What Is Settler Colonialism?*, THE INDIGENOUS FOUNDATION, <https://www.theindigenousfoundation.org/articles/what-is-settler-colonialism> (defining colonialism as “the policy or practice of acquiring full or partial political control over another country, occupying it with settlers, and exploiting it economically” and “Settler colonialism more specifically is a term for when the colonizer comes to stay and as such the distinction between the colony and the imperial nation is lost.”).

¹² David Hill, *Peru’s Ayahuasca Industry Booms as Westerners Search for Alternative Healing*, THE GUARDIAN (Jun. 7, 2016), <https://www.theguardian.com/travel/2016/jun/07/peru-ayahuasca-drink-boom-amazon-spirituality-healing>; see also María Lopes, *Millennials on Spirit Quests Are Ruining Everything About Ayahuasca*, VICE MAGAZINE (Oct. 27, 2016, 8:39AM), https://www.vice.com/en/article/78kmvx/millennials-on-spirit-quests-are-ruining-everything-about-ayahuasca_.

¹³ *Westerner*, ENCYCLOPEDIA BRITANNICA (2022) (defining “Westerner” as “a person born, raised, or living in North America or Western Europe”); see also *Westernization*, ENCYCLOPEDIA BRITANNICA (Feb. 14, 2022), <https://www.britannica.com/topic/Westernization> (describing how “Westernization reached much of the world as part of the process of colonialism and continues to be a significant cultural phenomenon as a result of globalization”).

¹⁴ Bani Amor, *The Heart of Whiteness: On Spiritual Tourism and the Colonization of Ayahuasca*, BITCH MEDIA (Jun. 5, 2019).

¹⁵ Hill, *supra* note 12.

¹⁶ Leia Friedwoman, *The Ayahuasca Sustainability Crisis: Fact or Fiction?*, PSYCHABLE (Apr. 12, 2021) (“Improper harvesting practices, such as not leaving enough vine behind for it to regenerate, further threatens the sustainability of ayahuasca in this area.”).

In regard to peyote, over exploitation and illegal trafficking has resulted in indiscriminate harvesting methods that adversely impact the plant's vitality.¹⁷ In addition, the expansion of commercial agriculture has decimated pilgrimage sites for the Wixárika—where extensive thickets of vegetation, including peyote, once flourished, now stand enormous greenhouses, expansive plots of cultivated land, and millions of caged chickens and pigs.¹⁸

As for mushrooms, the Catholic Church condemned the use of mushroom-related practices during the Spanish Colonial period, equating it with worshipping the Devil.¹⁹ The use of *teonanácatl* was pushed to the furthest, most remote regions of Mesoamerica, until the mid-twentieth century work of amateur mycologist Robert G. Wasson and his wife, Valentina Wasson.²⁰

As the various cultural and religious practices of psychedelic use by indigenous groups are too broad to discuss, this paper will primarily be focusing on the traditional use of mushrooms within the *Psilocybe* genus. Robert Wasson is often considered to be one of the first Westerners to participate in a Mazatec ceremony.²¹ His article, *Seeking the Magic Mushroom*,²² was published in *Life* magazine in 1959, and catapulted psychedelic mushrooms to the forefront of the counterculture movement in the 1960s. In it, he detailed how he met shaman María Sabina, who took him through a traditional Mazatec ritual, and the psychoactive effects of the *Psilocybe* species he experienced.²³ His article resulted in hordes of Westerners descending upon the small town of Huautla de Jiminez, seeking the wisdom of Sabina.²⁴ It also launched mushrooms into the spotlight of scientific inquiry. In 2018, the Food and Drug Administration (FDA) granted "breakthrough therapy" status to psilocybin therapy.²⁵ Psilocybin is the compound responsible in mushrooms of the *Psilocybe* genus for its psychedelic

¹⁷ Mattha Busby and Jasmine Virdi, Big business could wipe out Mexico's sacred psychedelic peyote cactus, *Open Democracy* (June 28, 2022), <https://www.opendemocracy.net/en/oureconomy/peyote-mescaline-psychedelic-mexico-agroindustry-wirikuta/>.

¹⁸ *Id.* See also *Huichol*, *Cultural Survival* (Mar. 5, 2010), <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/huichol#:~:text=The%20primary%20event%20in%20Huichol,Ancient%20Ones%20of%20the%20tribe.>

¹⁹ Ralph Metzner, *Visionary Mushrooms of the Americas*, in *SACRED MUSHROOM OF VISIONS: TEONANÁCATL 1* (Ralph Metzner ed., 2004).

²⁰ *Id.* at 1–2. See also Robert G. Wasson, *Seeking the Magic Mushroom*, *LIFE MAG.*, May 13, 1957, at 100.

²¹ See Konstantin Gerber et al., *Ethical Concerns about Psilocybin Intellectual Property*, 4 *ACS PHARMACOLOGY & TRANSLATIONAL SCI.* 573 (2021).

²² Wasson, *supra* note 20.

²³ *Id.*

²⁴ *High Times Greats: R. Gordon Wasson*, *HIGH TIMES* (Sep. 22, 2020).

²⁵ Yasemin Saplakoglu, *FDA Calls Psychedelic Psilocybin a 'Breakthrough Therapy' for Severe Depression*, *LIVE SCI.* (Nov. 25, 2019); U.S. FOOD & DRUG ADMIN., *Breakthrough Therapy* (2018) ("Breakthrough Therapy designation is a process designed to expedite the development and review of drugs that are intended to treat a serious condition and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over available therapy on a clinically significant endpoint(s).").

effects.²⁶ A follow-up study by the Johns Hopkins Center for Psychedelic and Consciousness Research found that psilocybin treatment for major depressive disorder was effective for up to a year in most patients after just two doses.²⁷ Most recently, psilocybin therapy was used in a major-breakthrough trial at NYU to treat alcohol use disorder.²⁸

As psilocybin remains a Schedule 1 substance within the US,²⁹ it is mostly privately owned companies that are researching the effects of psilocybin containing mushrooms, synthesizing its compounds, conducting clinical trials, and registering patents on various forms of psychedelic therapy.³⁰ Several difficulties arise when indigenous practices dating back a millennia are being patented by wealthy corporations seeking to capitalize off the traditional knowledge of native groups.³¹ One major issue is that the current U.S. intellectual property (IP) framework is functionally incompatible with traditional knowledge.³² Intellectual property rights (IPRs) require (1) an identifiable author, inventor or other originator (who will be individually rewarded), (2) an identifiable work, invention or other object, and (3) defined restricted acts.³³ Traditional knowledge directly conflicts with these requirements—rarely are there identified authors or inventors of creations. Rather, inventions and knowledge are passed on and enriched from one generation to the next.³⁴ Here, various Native groups have been using, breeding, practicing, and healing with mushrooms within the *Psilocybe* genus for over a

²⁶ Saplakoglu, *supra* note 25.

²⁷ *Psilocybin Treatment for Major Depression Effective for Up to a Year for Most Patients, Study Shows*, JOHN HOPKINS MEDICINE (Feb. 15, 2022), <https://www.hopkinsmedicine.org/news/newsroom/news-releases/psilocybin-treatment-for-major-depression-effective-for-up-to-a-year-for-most-patients-study-shows> (describing how “under carefully controlled conditions, this is a promising therapeutic approach that can lead to significant and durable improvements in depression”).

²⁸ *Can Magic Mushrooms Help Alcoholics? NYU Study Shows Promise*, BUSINESS TIMES MAGAZINE, (Aug. 25, 2022), <https://www.businesstimes.com.sg/life-culture/can-magic-mushrooms-help-alcoholics-nyu-study-shows-promise>.

²⁹ *Drug Fact Sheet*, DEPARTMENT OF JUSTICE/ DRUG ENFORCEMENT ADMINISTRATION (Apr. 2020), https://www.dea.gov/sites/default/files/2020-06/Psilocybin-2020_0.pdf.

³⁰ See Elaine McArdle, *Reassessing Psychedelics*, HARVARD LAW BULLETIN (Jan. 31, 2022), <https://hls.harvard.edu/today/reassessing-psychedelics/>. See also Gerber et al., *supra* note 21 (discussing how as of 2021, there are twenty-one patents out on psilocybin with “no plans for reciprocity with or compensation for the indigenous communities who have protected these traditional mushroom practices for millennia”).

³¹ See Mason Marks & I. Glenn Cohen, *Psychedelic therapy: A Roadmap for Wider Acceptance and Utilization*, 27 NATURE MEDICINE 1669 (2021) (explaining how “[i]n addition to being funded by private donors, existing trials often lack diversity and exclude populations who may benefit from psychedelics, such as people with histories of severe trauma and self-harm. An infusion of federal funds could be used to make psychedelics research more equitable and inclusive”).

³² Daniel Gervais, *Traditional Knowledge & Intellectual Property: A TRIPS-Compatible Approach*, 2005 MICH. ST. L. REV. 137 (2005).

³³ *Id.*

³⁴ *Id.*

thousand years.³⁵ Intellectual property is largely shaped by Western expectations and valuations,³⁶ which results in a capitalistic, exploitative, and inherently colonialist use of psychedelic mushrooms.

Some argue that without Wasson's article, the psychedelic counterculture would have never come to fruition.³⁷ Others predict that psychedelic mushrooms could fundamentally transform mental health, illness, and addiction as we know it.³⁸ Indeed, Psychiatrist Stanislav Grof³⁹ once said "psychedelics, used responsibly and with proper caution, would be for psychiatry what the microscope is for biology and medicine or the telescope is for astronomy."⁴⁰ Given recent breakthroughs in psilocybin therapy, there is a preponderance of evidence indicating that the world is on the precipice of a mental health renaissance; for the first time ever, there is confirmation of treatment that can potentially cure some of society's worst mental illnesses.⁴¹ However, it is in danger of being the latest "cash crop" for big pharma.⁴² For hundreds of years, indigenous communities faced backlash for their beliefs. Now, their practices are being stolen, exploited, reclassified from plants to chemicals, and packaged to serve Western medicine's needs.

The mass production of plant medicine by the West is another form of colonialism, and if such plants are to be legalized and mass-produced, they should include an indigenous reciprocity component. The benefits of plant

³⁵ McArdle, *supra* note 30. See also Tony Greenberg, *Psychedelics Could Become Extractive Capitalism—Unless We Hold Stakeholders Accountable*, DOUBLE BLIND MAG. (Nov. 11, 2021), <https://doubleblindmag.com/psychedelics-could-become-extractive-capitalism/> (quoting Dr. Barsuglia, "Often murdered for centuries for their practices, driving them deeper into the jungle, now all of a sudden the colonizers want their secrets, seek to commodify their plants, and cut them and their ecosystems out of the equation.").

³⁶ Asterios Tsioumanis et al., *Is Policy Towards Intellectual Property Rights Addressing The Real Problems? The Case of Unauthorized Appropriation of Genetic Resources*, 16 J. OF AGRIC. & ENV'T ETHICS 605–616 (2003) (explaining "[i]n a great number of cases, the interests of the commercial users of the system dominate in the evolution of intellectual property rights' policy. Thus 'policy tends to be determined more by the interests of a few, than by an impartial conception of the greater public good'").

³⁷ High Times Greats: R. Gordon Wasson, *supra* note 24.

³⁸ See Daniella Schlosser & Thomas R. Insel, *A Renaissance for Psychedelics Could Fill a Long-Standing Treatment Gap for Psychiatric Disorders*, SCI. AMERICAN (Sept. 14, 2021), <https://www.scientificamerican.com/article/a-renaissance-for-psychedelics-could-fill-a-long-standing-treatment-gap-for-psychiatric-disorders/>.

³⁹ Dr. Stanislav Grof, <https://www.stangrof.com/> (last visited Oct. 17, 2022) (identifying Grof as "a psychiatrist with over sixty years of experience in research of non-ordinary states of consciousness and one of the founders and chief theoreticians of transpersonal psychology").

⁴⁰ Stanislav Grof, *LSD Psychotherapy (4th Edition): The Healing Potential of Psychedelic Medicine*, (April 1, 2008), 12.

⁴¹ See Psilocybin Treatment for Major Depression Effective for Up to a Year for Most Patients, Study Shows, *supra* note 27 (explaining how "Compared to standard antidepressants, which must be taken for long stretches of time, psilocybin has the potential to enduringly relieve the symptoms of depression with one or two treatments.").

⁴² See Bill Peters, *First Psychedelic Drug Stock Hits \$1 Billion In Debut After Upsized IPO*, INVESTOR'S BUSINESS DAILY (Sept. 18, 2020, 4:19PM), <https://www.investors.com/news/compass-pathways-sees-544-million-valuation-first-psychedelic-drugs-ipo/>.

medicine should not be gatekept, especially if they truly hold the key to transforming the lives of those plagued by anxiety, depression, PTSD, and various other mental illnesses. Nevertheless, in the quest to legalize and implement psilocybin therapy, corporations should not forget where such practices originated, who championed their uses, and who colonialism has fought to silence for thousands of years. As an infinitesimal burden for a colossal industry, though indigenous reciprocity does not maximize economic efficiency, it remains a crucial marker driving the line between conscientious healthcare and pharmaceutical gluttony.⁴³

Through a critical indigenous lens,⁴⁴ this article will explore the following: how primary sources in psychedelic literature uphold Western individualism; how Western culture encourages and is complicit in colonialism; how the United States can move forward ethically through possible solutions identified by scholars within the psychedelic field; the Convention on Biological Diversity and Nagoya Protocol's potential to address the various issues that arise in commercializing psychedelics; and why indigenous reciprocity is necessary despite its lack of economic viability.

II. HOW PRIMARY SOURCES IN PSYCHEDELIC LITERATURE UPHOLD WESTERN IDEOLOGIES AND NARRATIVES

A crucial turning point in psychedelic literature, while not in reference to Psilocybe genus mushrooms, was Aldous Huxley's work recounting his mescaline experience.⁴⁵ *Doors of Perception* was one of the earliest "primary sources" of psychedelic text, most notable for reflecting on the philosophical and psychological implications that mescaline has on one's ego and sense of existence.⁴⁶ Note that "primary sources" here is in quotations because it is in reference to how Western academia and its works are cited. It is not referring to the actual primary sources of topic here—the hundreds of years' worth of

⁴³ See Gerber et al., *supra* note 21 (discussing "When the intellectual 'property' derived from naturally occurring compounds is the prior art of indigenous people, we are obliged to explore the ethics of shareholders reaping the financial benefit from these compounds").

⁴⁴ See Andrea Ens, *Silencing indigenous pasts: critical Indigenous theory and the history of psychedelics*, 34 INTERNATIONAL JOURNAL OF QUALITATIVE STUDIES IN EDUCATION at 904, 904–14 (2021), <https://www.tandfonline.com/doi/pdf/10.1080/09518398.2021.1942297?needAccess=true> (discussing how applying critical indigenous theory to the field of psychedelic study reveals that "[psychedelic research] often center[s] . . . on the experiences of white male researchers, clinicians, politicians, and countercultural leaders. These colonizing narratives exoticize, marginalize, and/or misinterpret Indigenous histories of these substances.").

⁴⁵ See ALDOUS HUXLEY, *THE DOORS OF PERCEPTION; AND, HEAVEN AND HELL* (1st Perennial Classics ed. 2004) (1954).

⁴⁶ *Id.* See also Ens, *supra* note 44 at 906 (explaining how "Huxley himself relied on the findings of a non-Indigenous peyote ceremony participant in order to understand the sacrament... *Doors of Perception* thus advanced incorrect assumptions about Indigenous peyote consumption due to its singular reliance on non-Indigenous source materials").

traditional knowledge that is incompatible with the academic framework of the West.⁴⁷

To understand traditional peyote use, it is necessary to understand the context in which it has been utilized by various indigenous groups. One key group are the Wixárika, better known as the Huichol, an Indigenous group from central northwest Mexico who practice with peyote.⁴⁸ Most significant to note is the persistence of their pre-Christian, pre-colonial religion (with only minimal accommodation to the practice of Catholicism).⁴⁹ The cactus is the soul of Huichol culture and religion.⁵⁰ Pedro Medellín, a government researcher on peyote population in Huichol sacred areas, expressed, “[i]f peyote disappears, then their whole culture disappears.”⁵¹ The Wixárika conduct an annual “peyote hunt” or pilgrimage of 300 miles, on foot to Wirikuta.⁵² This journey symbolizes a “desire to return to the source of all life and heal oneself.”⁵³ Once arriving at their destination, they collect and consume peyote with a shaman who communicates with the gods to safeguard the rebirth of the pilgrims' souls.⁵⁴ During this, peyote acts as a conduit, linking the shaman to the gods.⁵⁵

The Native American Church regards peyote as a sacred gift of God that can heal both body and soul.⁵⁶ Members refer to peyote as medicine with different Native languages reinforcing this narrative.⁵⁷ Church services, peyote meetings, and prayer meetings are used interchangeably in the Native American Church, with the most common purpose of holding a peyote meeting being for healing.⁵⁸ One woman within the Azee Bee Nahagha of Diné Nation (formally known as the Native American Church of Navajoland), described how

⁴⁷ Rather, it is referencing what dominant narrative considers to be “primary”—the colonialist interpretation of it.

⁴⁸ *Huichol*, CULTURAL SURVIVAL (Mar. 5, 2010), <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/huichol#:~:text=The%20primary%20event%20in%20Huichol,Ancient%20Ones%20of%20the%20tribe>.

⁴⁹ STACY B. SCHAEFER & PETER T. FURST, *PEOPLE OF THE PEYOTE: HUICHOL INDIAN HISTORY, RELIGION, AND SURVIVAL* 52–53 (1997).

⁵⁰ *Id.*

⁵¹ Lulu Garcia-Navarro, *Mexico's Peyote Endangered by 'Drug Tourists'*, NATIONAL PUBLIC RADIO (last visited XXX, XX, 2023, XX:XXAM/PM) <https://www.npr.org/2007/09/03/14064806/mexicos-peyote-endangered-by-drug-tourists>.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.*

⁵⁶ Thomas C. Maroukis, *The Peyote Road: Religious Freedom and the Native American Church*, Native Am. Times, May 14, 2010, at 9.

⁵⁷ *Id.* (highlighting “Peyote is called pejuta, the word for ‘medicine.’ In Navajo, Peyote is ‘azee,’ also the word for medicine. These indigenous names for Peyote indicate that it is a medicine that acts spiritually, psychologically, and physiologically.”).

⁵⁸ *Id.* at 9-10.

a peyote meeting following the passing of her father to COVID-19 helped her family move forward and properly reconcile.⁵⁹ Prior to Huxley's work, the Native American Church had faced criticism from various magazines and journals for their ritual peyote use.⁶⁰

The average Westerner's knowledge of psychedelic mushrooms and their psycho-active components came to fruition largely due to Wasson's article *Seeking the Magic Mushroom* and his subsequent commitment to its research and development.⁶¹ Hand in hand with Huxley's work, Wasson's article launched psychedelics into counterculture stardom. Wasson, like Huxley, posited his personal experience with this traditional plant as central to his message concerning mushrooms. Understanding just how significantly Wasson's account differs from the historical consumptions and practices of psychedelic mushrooms requires a brief dive into their history. In the years following the Catholic Church's denunciation and persecution of mushroom related practices, *teonanácatl* practices went underground for hundreds of years.⁶² In the Mexican countryside, far and few quietly passed down and built upon the ceremonies of their ancestors, virtually unknown to the West until Wasson's article.⁶³

In 1955, when Wasson and company arrived to the remote Mazatec village of Huautla de Jimenez in Oaxaca, they were introduced to *curandera* (medicine woman) María Sabina who, after some hesitation, allowed them to participate in a mushroom ritual.⁶⁴ Sabina had been performing *velada* ceremonies for over thirty years prior to Wasson's arrival.⁶⁵ She could neither read nor write, yet composed dozens of poems, sung and spoken, during her *veladas*.⁶⁶ Sabina did not take credit for this poetry; instead she described how the mushrooms, her *niños santos* (holy or saint children), spoke through her.⁶⁷ During the ceremony, participants ingested mushrooms, with Sabina ingesting twice as much in order to contact the spirits, who would in turn show Sabina the cause of one's

⁵⁹ Rocky Mountain PBS, *Native Lens: Healing Through Peyote*, YouTube ([Feb. 14, 2022](https://www.youtube.com/watch?v=Q7gR5oXARII)), <https://www.youtube.com/watch?v=Q7gR5oXARII>.

⁶⁰ Stephen Siff, *R. Gordon Wasson and the Publicity Campaign to Introduce Magic Mushrooms to Mid-Century America*, 156 *REVUE FRANCAISE D'ETUDES AMERICAINES* 91(2018).

⁶¹ *Id.*; Wasson fit the mold for a stereotypical Westerner of his time. He studied at Columbia University Graduate School of Journalism and the London School of Economics. *Id.* at 94; He was fluent in English, French, and Spanish and left the field of journalism to ultimately become Vice-President of J.P. Morgan & Company in 1943 until his retirement in 1963. *Id.*

⁶² Metzner, *supra* note 19.

⁶³ *Id.*

⁶⁴ Siff, *supra* note 60.

⁶⁵ Ahmed Kabil, *This Mexican medicine woman hipped America to magic mushrooms, with the help of a bank executive*, *TIMELINE* (Jan. 4, 2017), <https://timeline.com/with-the-help-of-a-bank-executive-this-mexican-medicine-woman-hipped-america-to-magic-mushrooms-c41f866bbf37> ([last visited Nov. 16 2023](#)).

⁶⁶ Chloe Aridjis, *On María Sabina, One of Mexico's Greatest Poets*, *BRITISH COUNSEL* (Mar. 30, 2015, 20:20 PM), <https://www.britishcouncil.org/voices-magazine/Maria-sabina-one-of-mexicos-greatest-poets>.

⁶⁷ *Id.*; See also MARÍA SABINA, *MARÍA SABINA: SELECTIONS (POETS FOR THE MILLENIUM)* 22 (Jerome Rothenberg ed., 2003).

injuries—physical or spiritual—and how to address it.⁶⁸ Sabina’s reluctance to include the Westerners in her ceremony was not because of their status as foreigners, but rather due to their lack of illness.⁶⁹ Sabina was equally a healer and a shaman, with her professions working hand in hand in her conduction of *veladas*. The goal of the mushrooms ceremonies was always to heal those who were sick.⁷⁰

It was here that Wasson and photographer Allan Richardson allegedly became “the first white men in recorded history to eat the divine mushrooms.”⁷¹ Following the ceremony, María Sabina made a small request of the Westerners she had guided through their spiritual journey.⁷² She asked them to please refrain from showing the photographs captured to anyone excluding the most trusted of friends.⁷³ Naturally, these requests were futile.

Due to their novelty, *Seeking the Magic Mushroom* and *The Doors of Perception* were relentlessly referenced and referred to by a multitude of researchers and scholars that sought to explore the impact of psychedelic mushrooms. Not only were many, if not a majority, of the authors who based their work off of Wasson and Huxley white researchers, but there was a consistent trend of exoticizing, omitting, misunderstanding, and/or downplaying “the importance of Indigenous people in their own historical moment.”⁷⁴ When analyzing popular literature on the anthropological⁷⁵ function of mushrooms in traditional settings, it becomes evident that the views, opinions, and role of psychedelics have become skewed to uphold and serve a colonialist, capitalist, and Western agenda. This is critical to the current understanding and perception of psychedelics because a majority of research stems from these primary sources and is in turn, warped in its perception of Indigenous people. Through a critical indigenous framework, historian Andrea Ens reflects upon the silencing of indigenous experiences:

[T]he problem in many of these primary sources is that ‘epistemologically racist interpretations, analyses, and conclusions result when privileged and dominant group researchers’ experiences and identities diverge greatly from those individuals and groups they research—but exclude the indigenous meaning fully from the overall research process’ . . .
White people relying on predominately white sources for

⁶⁸ Kabil, *supra* note 65.

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ Wasson, *supra* note 20, at 101; *See also* Siff, *supra* note 60.

⁷² Siff, *supra* note 60.

⁷³ *Id.*

⁷⁴ Ens, *supra* note 44, at 906.

⁷⁵ *Anthropology*, MERRIAN-WEBSTER, <https://www.merriam-webster.com/dictionary/anthropological> (last visited Sept. 28, 2023) (defining anthropology as “the study of human beings and their ancestors through time and space and in relation to physical character, environmental and social relations, and culture” and describing anthropological as the adjective form of anthropology).

*information about Indigenous people's histories is therefore problematic because these sources were not meant to be accountable to Indigenous people themselves.*⁷⁶

Neither Wasson nor Huxley's works were accountable⁷⁷ to indigenous people in the way Ens describes. While ground-breaking for its first-hand account of the exploration of the human consciousness⁷⁸ and its connection to hallucinogenic drugs, *The Doors of Perception* is as problematic as it is brilliant.⁷⁹ Huxley's work is controversial because the author depicts peyote consumption as a personal experience, rather than centering it around the historical and ceremonial context in which has been consumed for thousands of years.⁸⁰ Here, Huxley posits psychedelics as tools and building blocks that may be utilized to achieve "a spiritual and philosophical experience of insurmountable value, not only for psychiatrists but also for artists, intellectuals, mystics, and anyone interested in exploring the secrets of existence."⁸¹ In contrast, peyote use within the Wixárika and various branches of the Native American Church centers around spirituality and healing. Within these groups, there is something inherently *communal* about peyote use.

Seeking the Magic Mushroom resulted in a similar tragedy. Wasson used his wealth and status to publicize his experiences and personal theories about the role of mushrooms in ancient societies.⁸² Sabina lamented about how the influx of Westerners seeking *veladas* transformed how the mushrooms communicated with her, "[f]rom the moment the foreigners arrived to search for God, the saint children lost their purity," she said.⁸³ "They lost their force; the foreigners

⁷⁶ Ens, *supra* note 44, at 907 (emphasis added).

⁷⁷ The Arthur W. Page Center for Integrity in Public Communications, *Ethical Principles of Responsibility and Accountability*, PA STATE COLLEGE OF COMM'N, <https://pagecentertraining.psu.edu/public-relations-ethics/ethics-in-crisis-management/lesson-1-prominent-ethical-issues-in-crisis-situations/ethical-principles-of-responsibility-and-accountability/#:~:text=%E2%80%9CIt%20is%20a%20readiness%20to,associated%20with%20a%20role%2C%20accountability> (last visited Sept. 28, 2023) (defining accountability as "a readiness to have one's actions judged by others and, where appropriate, accept responsibility for errors, misjudgments and negligence and recognition for competence, conscientiousness, excellence and wisdom").

⁷⁸ Huxley, *supra* note 45 (describing the mescaline experience as "[t]o be shaken out of the ruts of ordinary perception, to be shown for a few timeless hours, the outer and inner world, not as they appear to an animal obsessed with survival or to a human being obsessed with words and notions, but as they are apprehended directly and unconditionally by Mind at Large—this is an experience of inestimable value to everyone and especially to the intellectual").

⁷⁹ It is crucial to note that a discussion on whether a work can be both brilliant *and* problematic—that is, whether one can separate the art from the artist—is too nuanced and varied a focus to be deliberated here.

⁸⁰ Bruhn et al., *supra* note 5.

⁸¹ Ido Hartogsohn, *When Aldous Huxley Opened the Doors of Perception*, THE MIT PRESS READER (Dec. 20, 2021), <https://thereader.mitpress.mit.edu/when-aldots-huxley-opened-the-doors-of-perception/>.

⁸² Siff, *supra* note 60.

⁸³ FRANCES E. KARTTUNEN, BETWEEN WORLDS: INTERPRETERS, GUIDES, AND SURVIVORS 240 (1994).

spoiled them. From now on they won't be any good. There's no remedy for it."⁸⁴ Mushrooms, as peyote, were used by *curanderas* like Sabina for the purpose of healing.⁸⁵ Yet they were dishonored by many of the outsiders who arrived at Huautla de Jimenez in order to seek a mystical experience.⁸⁶

There is certain danger in referencing the work of an outsider to advance research and theories within the field of psychedelics, especially when these works explore the use of biological resources that intersect so deeply within the culture and traditions of various indigenous groups. Andrea Ens addressed this ignorance within academia, aptly arguing:

When white historians . . . bury Indigenous histories in their footnotes without making any attempt to address their historical existence or agency, they asterisk—or, rather, footnote—Indigenous individuals and communities. This move to innocence furthers colonial perspectives, prioritizes settler agency, and disregards the importance of Indigenous histories in understanding psychedelics over the course of the twentieth century.⁸⁷

III. WESTERN CULTURE ENCOURAGES AND IS COMPLICIT IN COLONIALISM

A. *The CBD and Nagoya Protocol*

A cursory inspection of how international bodies of law view and treat indigenous knowledge reveals a plethora of frameworks that budding psychedelic companies may utilize to hone and practice reciprocity. The United Nations Convention for Biological Diversity (CBD) was signed by 150 government and world leaders in 1992 at the Rio Earth Summit.⁸⁸ The CBD has three main objectives: 1) the conservation of biological diversity, 2) the sustainable use of the components of biological diversity and 3) the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.⁸⁹ The CBD directs governing bodies through national legislation to “respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity . . . [and] encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices.”⁹⁰

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ Ens, *supra* note 44.

⁸⁸ Gerber et al., *supra* note 21.

⁸⁹ *Convention on Biological Diversity*, SECRETARIAT FOR THE CONVENTION ON BIOLOGICAL DIVERSITY (1992), <https://www.cbd.int/doc/legal/cbd-en.pdf>.

⁹⁰ Gerber et al., *supra* note 21, at 574.

More recently, the CBD was followed in 2010 by the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya Protocol or the Protocol).⁹¹ The Nagoya Protocol is a supplementary agreement to the CBD and provides a “transparent legal framework for the effective implementation of one of the three objectives of the CBD: the fair and equitable sharing of benefits arising out of the utilization of genetic resources.”⁹² The agreement promotes the process of sustainable reinvestment in biodiversity conservation.⁹³ It also emphasizes the significance of equitable relationships regarding the use of associated traditional knowledge held by indigenous peoples and local communities.⁹⁴

The conservation of biological diversity is not limited to the physical environment. Anthropologist and legal scholar Rosemary J. Croombe stresses the importance of recognizing that biodiversity and traditional knowledge are not a stagnant collection of species, traits, resources, data, or information, arguing, “Biodiversity is created through the interaction between human communities and local ecosystems; it is the dynamism of this nexus that needs to be preserved, not a static body of knowledge or a single group of species, or the amount of interspecies variation that exists at any given moment.”⁹⁵ She emphasized how it society’s responsibility to shape the conditions under which biological diversity can be fostered and nurtured, in which indigenous communities who have traditionally cultivated and created biological diversity to continue to do so.⁹⁶ The CBD and Nagoya Protocol’s mere existence implies that traditional knowledge is not an “open access unregulated market.”⁹⁷ Indigenous people simultaneously have the right to and should profit from advances based on their immaterial cultural heritage, including their spiritual practices.⁹⁸ As of today, the Protocol has been ratified by 132 Parties to the Convention on Biological Diversity.⁹⁹

⁹¹ Convention on Biological Diversity, *The Nagoya Protocol on Access and Benefit-Sharing* (June 9, 2015), <https://www.cbd.int/abs/about/>.

⁹² *Id.*

⁹³ Press Release, Convention on Biological Diversity, *In lead-up to adoption of post-2020 global biodiversity framework at COP-15, the Nagoya Protocol on Access and Benefit-sharing remains more relevant than ever* (Oct. 29, 2021) <https://www.cbd.int/doc/press/2021/pr-2021-10-29-np-en.pdf>.

⁹⁴ *Id.*

⁹⁵ Rosemary J. Coombe, *The Recognition of Indigenous Peoples' and Community Traditional Knowledge in International Law*, 14 ST. THOMAS L. REV. 275, 279 (2001).

⁹⁶ *See id.*

⁹⁷ Gerber et al., *supra* note 21 at 574.

⁹⁸ *Id.*

⁹⁹ *Id.*

Ratification of the CBD and Nagoya Protocol require a two-thirds Senate majority, which Republican lawmakers have continuously blocked.¹⁰⁰ Despite such opposition, environmental and policy experts agree that the United States' failure to join the CBD significantly hampers global conservation efforts.¹⁰¹ Psychedelic pharmaceutical companies should not be deterred by their government's failure to act on behalf of the Earth's interests, however. Being an equitable psychedelic company should not hinge on the bare minimum standards set by governing bodies—especially when such a government had a first-hand role in systemically eliminating, criminalizing, and incarcerating individuals for practicing with such psychedelics. Rather, companies should strive to “reflect the values of the researchers, advocates, and Indigenous peoples who built the industry.”¹⁰²

B. Neoliberalism's Budding Effects

The preservation and employment of dominant, Western ideologies—namely, neoliberalism—is quite prominent within psychedelic literature.¹⁰³ The emphasis on competition and self-interest, in particular, can be seen in a number of recent projects undertaken by major organizations who are pursuing psilocybin research and major media outlets who are keen to disseminate the progress of such institutions.

A recent example comes from the Petrie-Flom Center for Health Law Policy, Biotechnology, and Bioethics at Harvard Law School's latest initiative—the Project on Psychedelics Law and Regulation (POPLAR).¹⁰⁴ POPLAR's home page describes the development as “a three-year initiative to examine the ethical, legal, and social implications of psychedelics research, commerce, and therapeutics.”¹⁰⁵ The home page also boasts POPLAR as “the first academic initiative focused on psychedelics law and policy, positioned to be a global leader

¹⁰⁰ Benji Jones, Why the US Won't Join the Single Most Important Treaty to Protect Nature, VOX (May 20, 2021), <https://www.vox.com/22434172/us-cbd-treaty-biological-diversity-nature-conservation> (explaining how Republican lawmakers have “argued that CBD would infringe on American sovereignty, put commercial interests at risk, and impose a financial burden, claims that environmental experts say have no support.”). Unfortunately, the audience of this note will not be privy to an interlude that attempts to dissect the reasons behind such anti-conservation efforts.

¹⁰¹ *Id.*

¹⁰² Gregoire, *supra* note 163.

¹⁰³ See AIHWA ONG, NEOLIBERALISM AS EXCEPTION: MUTATIONS IN CITIZENSHIP AND SOVEREIGNTY, in DUKE UNIV. PRESS 1, 1 (2006) (remarking “Neoliberalism seems to mean many different things depending on one's vantage point”); For this paper, neoliberalism and its adjectivization refers to “a mode of governance that embraces the idea of the self-regulating free market, with its associated values of competition and self-interest, as the model for effective and efficient government.” MANFRED B. STEGER & RAVI K. ROY, NEOLIBERALISM: A VERY SHORT INTRODUCTION. OXFORD UNIV. PRESS 12 (Steger & Roy eds., 2010).

¹⁰⁴ McArdle, *supra* note 30.

¹⁰⁵ *The Project on Psychedelics Law and Regulation (POPLAR)*, PETRIE-FLOM CENTER FOR HEALTH L. POL., BIOTECHNOLOGY, AND BIOETHICS AT HARV. L. SCH., <https://petrieflom.law.harvard.edu/research/the-project-on-psychedelics-law-and-regulation-poplar> (last visited Nov. 16, 2023).

for research and education in this space.”¹⁰⁶ POPLAR’s page cites the projected U.S. market for psychedelics (an estimated \$6.85 billion by 2027) and emphasizes how POPLAR will focus on equity in psychedelic research.¹⁰⁷ The home page also lists both a background section and a number of goals for the project, but was completely void regarding the role that Indigenous knowledge played in its research.¹⁰⁸ It makes no mention of Indigenous people or how the intertwining of ethnicity and culture factor into the ethical conversation.¹⁰⁹ It also makes no mention of whether or not Indigenous researchers and perspectives will be contributing in any meaningful way to the outputs of POPLAR.¹¹⁰

One article published in the Harvard Law Bulletin dives deeper into POPLAR’s quest as “the first of its kind in the world,” highlighting POPLAR’s goal to “examine the way legal choices will have huge social implications.”¹¹¹ How Indigenous people factor into psychedelic research is briefly mentioned here, posing important questions: “[m]any members of this community feel it is a form of biopiracy to take that knowledge without compensation or acknowledgment. . . . How to address that through the legal system is a big question.”¹¹² It is unclear whether the social and ethical considerations that are being researched by POPLAR posit the well-beings and livelihoods of native traditions and people at the center of their examinations, or if such effects are merely an afterthought or “asterisk-ing”¹¹³ of Indigenous existence. The persistent emphasis on the novelty of POPLAR and Harvard’s role in spearheading this new form of research embodies the individualist agenda to which most Western well-intended projects fall victim. McArdle’s article mentioned Indigenous traditions, biopiracy, and intellectual property concerns for traditional knowledge, yet these affairs were tangents that diverted from the main focus of the article: the role of Harvard and POPLAR in psychedelic ethics, legality, and academia.¹¹⁴

Another major example of the preservation and embodiment of neoliberalism in Western culture can be seen with how major media outlets, and the general public, view Wasson. In 2021, the New Yorker highlighted the love story behind Wasson and his wife Valentina, and how their romance contributed to their pseudo-discovery of psilocybic mushrooms.¹¹⁵ *Magic Mushrooms, a Love Story* recounts how the couple met and how Valentina’s love for mushrooms and

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ McArdle, *supra* note 30.

¹¹² *Id.*

¹¹³ Ens, *supra* note 44, at 908–09.

¹¹⁴ McArdle, *supra* note 30.

¹¹⁵ Françoise Mouly & Genevieve Bormes, *Magic Mushrooms, a Love Story*, THE NEW YORKER (Nov. 12, 2021), <https://www.newyorker.com/culture/culture-desk/magic-mushrooms-a-love-story>.

Wasson's love for his wife contributed to his later fascination and commitment to them.¹¹⁶ The purpose behind the piece was to shed light on an upcoming graphic novel about Wasson and Valentina's relationship along with their commitment to the fungi.¹¹⁷ Brian Blomerth, the mind behind the graphic novel, authors numerous comics about various psychedelics, altered states, and the people behind them.¹¹⁸ Only as a side note was María Sabina mentioned, with the article concluding with how Blomerth's book was a celebration of another altered state: "love and the irrevocable effect one person can have on another's interests, career, and life."¹¹⁹

One cannot deny how *good* it feels to read an article that humanizes well-known figures. It softens the chronicle of the white man who entered a foreign country, took advantage of local generosity, and then exploited and capitalized upon his experiences at the expense of indigenous folk. Articles like *Magic Mushrooms, a Love Story* trap readers into a warm net of feel-good familiarity and understanding. They posit the colonizer as a regular man, as a neighbor who loves his wife, and a man whose love contributed to the world's "discovery" of such an incredible substance in the process. Such is the danger of Western neoliberalism. By highlighting the individual—his highs and his lows, his humanness, and his contributions—it detracts from the most central of concerns—how such a narrative conditions its audience into viewing the colonizer as his friend.

The legacy of María Sabina is perhaps the utmost of tragedies to emerge from Wasson's article. Born into poverty, the *curandera* had spent her entire life in the small, mountain village of Huautla de Jimenez, working the land in order to pay for beer and cigarettes.¹²⁰ It was in between her first and second marriage that Sabina learned of her destiny within shamanistic healing.¹²¹ Her sister, Marí Ann, had fallen sick with little hope of recovery, and in a bout of desperation, Sabina gave her three pairs of mushrooms, eating about thirty or so herself.¹²² What followed was a vision with whom Sabina calls the Principal Ones¹²³ gifting her the Book of Wisdom and Language.¹²⁴ In her oral

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ Aridjis, *supra* note 66.

¹²¹ Benjamin Feinberg, *Three Mazatec Wise Ones and Their Books*, 17(4) CRITIQUE ANTHROPOLOGY 411, 430 (1997).

¹²² *Id.*

¹²³ Aridjis, *supra* note 66 (describing the Principal Ones as "tutelary gods, the lords of the rivers and mountains, ancient invisible presences in nature").

¹²⁴ *Id.*

autobiography, translated from Mazatec to English,¹²⁵ Sabina reflected on how this journey shaped her fate:

Then I realized that I was reading the Sacred Book of Language. My Book. The Book of the Principal Ones . . . Language makes the dying return to life. The sick recover their health whenever they hear the words taught by the *saint children*. There is no mortal who can teach this Language.¹²⁶

Marí Ann made a full recovery, and the word began to spread about Sabina's powers.¹²⁷

Seeking the Magic Mushroom was the catalyst to Sabina's immortalization, directing masses of enlightenment-seeking spiritual tourists unto the Oaxacan village. Nowadays, her face and name can be found adorning t-shirts, posters (specifically one of her smoking a cigarette which counter-culture fanatics believed to be a joint, making her an even bigger icon among drug-user culture).¹²⁸ Not even death can spare Sabina from the commodification of her existence, permanently enshrined on the sides of restaurants, gift shops, and taxicabs.¹²⁹

C. The IP Framework's Contributions

The repackaging, repurposing, and patenting of indigenous knowledge by outside investors seeking to capitalize is not a novel phenomenon.¹³⁰ The heart of these practices lies within the blatant incompatibility of the IP system with traditional knowledge.¹³¹ The U.S. patent system permits and encourages broad patents on minor modifications, syntheses, and purifications. In doing so, it inherently enables appropriation of indigenous knowledge to serve a capitalist centered economy.¹³² Daniel Gervais, an IP Professor at Vanderbilt Law School, emphasizes the importance of rethinking the U.S. IP system in the face of biopiracy:

In the absence of adequate mechanisms to provide protection for such efforts, proper incentives are not yet available to encourage

¹²⁵ MARÍA SABINA, MARÍA SABINA AND HER MAZATEC MUSHROOM VELADA, [COMPILED BY] R. GORDON WASSON [AND OTHERS] XIII (1974) (describing “. . . Alvaro Estrada. A Mazatec speaker and fellow townsman, Estrada engaged her in a series of recorded conversations, which he translated into Spanish and made the basis of her "oral autobiography").

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *María Sabina: Magic Mushrooms and Silencing the Saint Children*, THE MEX FILES (Apr. 14, 2010), <https://mexfiles.net/2010/04/14/María-sabina/>.

¹²⁹ *Id.*

¹³⁰ See Tsioumanis et al., *supra* note 36; see also Rosemary J. Coombe, *The Recognition of Indigenous Peoples' and Community Traditional Knowledge in International Law*, 14 ST. THOMAS L. REV. 275 (2001); see also Gerber et al., *supra* note 21.

¹³¹ Daniel Gervais, *Traditional Knowledge & (and) Intellectual Property: A TRIPS-Compatible Approach*, 2005 MICH. ST. L. REV. 137 (2005).

¹³² See Coombe, *supra* note 127.

more people to pursue such innovations. The ultimate test of any incentive system is whether it can nurture and augment the spirit of experimentation, exploration and sharing, so evident in traditional communities over the years. *We need to find ways of ensuring that the value system of many of these communities does not become a reason for their remaining poor, and thus, ultimately, eroding their vitally important knowledge and resource base.*¹³³

Patent systems that only recognize the contributions of some and not of others are both unjust and unstable, with an unsustainable future ahead.¹³⁴ Intellectual property concerns aside, maximizing the social impact in healthcare should be prioritized in the psychedelic medicine space. Tony Greenberg, a bio-investor and entrepreneur, cautions of the dangers in extractive capitalism within psilocybin focused companies:

Reciprocity is a natural and moral law. Among the shamans of the Peruvian Andes, they have a word, ‘ayni, translated as ‘sacred reciprocity.’ Ayni is not about scorekeeping, but about keeping track. Ayni says we should partner. Give without knowing how we’ll benefit. Psychedelic companies should practice ‘ayni.’ If we take without giving, ayni teaches, we hurt ourselves and can become sick. If we find balance, we can become healthy.¹³⁵

Indeed, “[w]hen the intellectual “property” derived from naturally occurring compounds is the prior art of indigenous people, we are obliged to explore the ethics of shareholders reaping the financial benefit from these compounds.”¹³⁶

IV. DIFFERENT WAYS THE UNITED STATES CAN MOVE FORWARD ETHICALLY

A number of cities—Ann Arbor, Denver, Oakland, and Seattle to name a few—have already passed measures decriminalizing psychedelic mushrooms.¹³⁷ Following the results of several clinical trials¹³⁸ and psilocybin’s “breakthrough” status labeling by the FDA,¹³⁹ the Biden administration announced plans

¹³³ Gervais, *supra* note 128 (emphasis added).

¹³⁴ CARY FOWLER, *BIOTECHNOLOGY, PATENTS AND THE THIRD WORLD*, IN *BIOPOLITICS: A FEMINIST AND ECOLOGICAL READER ON BIOTECHNOLOGY* 215 (V. Shiva & I. Moser eds., 1995).

¹³⁵ Greenberg, *supra* note 35.

¹³⁶ Gerber et al., *supra* note 21.

¹³⁷ Michael Ollove, *More States May Legalize Psychedelic Mushrooms*, THE PEW CHARITABLE TRUSTS (Jul. 15, 2022), <https://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2022/07/15/more-states-may-legalize-psychedelic-mushrooms>.

¹³⁸ See *Psilocybin Treatment for Major Depression Effective for Up to a Year for Most Patients, Study Shows*, *supra* note 27.

¹³⁹ Saplakoglu, *supra* note 25.

preparing to legalize psilocybin by 2024.¹⁴⁰ It is imperative to hold stakeholders accountable in what is projected to be a multi-billion dollar industry.¹⁴¹ As the United States moves toward the direction of legalization, companies engaging in the research and patenting of psychedelic mushrooms for medicinal uses should incorporate indigenous reciprocity into their business models.

Several scholars have identified possible solutions to the blight of bioprospecting which include prior informed consent¹⁴² of the communities involved and benefit sharing.¹⁴³ Others have gone so far as to suggest a total reconceptualization or restructuring of the IP system to incorporate benefit-sharing systems that address its history of inequity and inequality.¹⁴⁴ Companies can also look to efforts within the state of California to redress the harm on low-income and marginalized groups following the War on Drugs for inspiration.¹⁴⁵ In 2022, California funneled more than \$35 million in marijuana taxes into a grant program to “support economic and social development in communities disproportionately impacted by the war on drugs.”¹⁴⁶ Destructive and racially profiled policies “led to the mass incarceration of people of color, decreased access to social services, loss of educational attainment due to diminished federal financial aid eligibility, prohibitions on the use of public housing and other public assistance, and the separation of families.”¹⁴⁷ The grants support job placement efforts, mental health and substance use disorder treatment, legal services, and linkages to medical care among other social programs.¹⁴⁸ California’s efforts at rectifying the damage is notable in part for its explicit acknowledgement of the racial and social harms that many families fell victim too. Such an effort embodies the proper spirit of ayni.

There are a number of psychedelic research companies, including American ones, that have already adopted the Nagoya Protocol into their business models.

¹⁴⁰ Mattha Busby, *Biden Administration Prepares for Legalization of MDMA and Psilocybin Within Two Years*, DOUBLE BLIND MAGAZINE (Aug. 17, 2022), https://doubleblindmag.com/biden-legalization-mdma-psilocybin/?utm_campaign=8%2F20%20Editorial%20Email%20%28TUF86J%29&utm_medium=email&utm_source=Engaged%20Segment%20%286%20Months%29&_kx=UM894mclu0PyOKsVQyDwcVIFktzAyL1weA48e6OmCtc%3D.WLzrRC_.

¹⁴¹ The Project on Psychedelics Law and Regulation (POPLAR), *supra* note 90.

¹⁴² PIC, MAT, MIA Guides, LEARN NAGOYA, <https://learnnagoya.com/guides/> (defining prior informed consent as “The permission given by the competent national authority of a provider country to a user prior to accessing genetic resources, in line with an appropriate national legal and institutional framework. . . PICs should typically be obtained from regional and cultural authorities, with local authorities, and with participants.”).

¹⁴³ Gerber et al., *supra* note 21.

¹⁴⁴ Tsioumanis et al., *supra* note 36.

¹⁴⁵ See, Kyle Jaeger, *California Awards \$35.5 Million In Marijuana Tax-Funded Grants To Repair Harms Of War On Drugs*, MARIJUANA MOMENT (June 3, 2022), <https://www.marijuanamoment.net/california-awards-35-5-million-in-marijuana-tax-funded-grants-to-repair-harms-of-war-on-drugs/>.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

One example is Washington based biotechnology company, Panacea Plant Sciences, who has patented technology to increase yields on cannabinoids, terpenes and other metabolites in plants.¹⁴⁹ They are a for-profit company that has already begun to cultivate a large patent library to leverage on the journey to drug approval and profitability.¹⁵⁰ Most notable, however, is the company's commitment to indigenous reciprocity. Panacea Plant Sciences details their reciprocity plan on their home page, dividing their proposal into four separate components: 1) compliance with the Nagoya Protocol, 2) equity distribution, 3) patent assignment, and 4) partnership. A significant portion of the equity of Panacea Plant Sciences (32%) may only be owned by Indigenous Groups and 401c3 organizations related to them or related environmental groups.¹⁵¹ In addition, the company has agreed to assign certain patents to indigenous groups and to help these groups develop patents to protect their sacred medicine.¹⁵² They are also working in conjunction with a variety of indigenous groups, such as the Sia, to promote and protect biodiversity and practice ayni.¹⁵³

Another company that has incorporated indigenous reciprocity and the Nagoya Protocol into its business model is psychedelic pharmaceutical company Journey Collab.¹⁵⁴ Central to its structure is an inclusive stakeholder stewardship model within the stakeholder-run Journey Reciprocity Trust.¹⁵⁵ Ten percent of the company's equity is pledged to Journey Reciprocity Trust in order to increase equitable access to mental healthcare within Indigenous communities and the ecological and cultural conservation of peyote.¹⁵⁶

These social-justice centered approaches¹⁵⁷ to the emerging field of psychedelics as a business venture beg the question of what it truly means to be an equitable psychedelic company. In addition to compliance with Nagoya, prior informed consent, reciprocity, and benefit sharing, Greenberg suggests some key performance indicators would be "donations to nonprofits; diversity on their staffs; environmental responsibility for manufacturers; accessibility for patients,

¹⁴⁹ Josh Crossney, *A Closer Look at the Rise of Psychedelic Medicine and Panacea Plant Sciences*, MJH LIFE sciences (Sept. 20, 2021), <https://www.cannabissciencetech.com/view/a-closer-look-at-the-rise-of-psychedelic-medicine-and-panacea-plant-sciences>.

¹⁵⁰ *Id.*

¹⁵¹ Reilly Capps, *Will Psychedelic Companies Embrace Indigenous Reciprocity?*, LUCID NEWS (Oct. 8, 2021), <https://www.lucid.news/will-psychedelic-companies-embrace-indigenous-reciprocity/>.

¹⁵² *Id.*

¹⁵³ *Id.*

¹⁵⁴ *Journey Collab*, PSYCHEDELIC SCI. REV., <https://psychedelicreview.com/organization/journey-collab/> (last visited Sept. 28, 2023).

¹⁵⁵ *Id.*

¹⁵⁶ Greenberg, *supra* note 35.

¹⁵⁷ Ta7taliya Michelle Nahanee, *An Introduction To Decolonizing And Reconciling Entrepreneurship*, SMALL BUS. BC, <https://smallbusinessbc.ca/article/an-introduction-to-decolonizing-and-reconciling-entrepreneurship/#:~:text=Decolonizing%20means%20taking%20out%20the,the%20only%20metric%20for%20success> (last visited Sept. 28, 2023) (Showing a social justice centered approach focuses on decolonization and stating "Decolonizing means taking out the dominant narratives of entrepreneurship as financial gain as the only metric for success.")

like having a sliding scale; client care, like whether clinical companies are taking care of trippers through preparation, screening, and integration.”¹⁵⁸ Going even further, Greenberg recommends that psychedelic companies publish internal reports on “how well they’re doing on their missions to benefit the public . . . The reports would be reviewed and rated by an outside party and given a score. After a few years, companies would compete for the highest scores.”¹⁵⁹

A decolonized business venture approach will allow emerging psychedelic pharmaceutical companies to succeed in their goals of combating a global mental health crisis all while honoring and restoring relationships with the indigenous peoples who pioneered such practices.¹⁶⁰

V. CONCLUDING REMARKS: WHY RECIPROCITY IS NECESSARY EVEN IF IT IS NOT ECONOMICALLY VIABLE

María Sabina retains a saintly status among psychedelic culture and counter-culture enthusiasts today. Literary writer and psychedelic explorer, Bett Williams, aptly summed up the issue with the enshrinement of Sabina within mushroom devotees, reflecting:

She was, after all, just one of many practitioners in a very old tradition. What a strange lottery, and how American, to pluck a single practitioner from the many and portray her as though she was in possession of rare idiosyncratic genius. The fetishization of María Sabina as holy martyr is a problematic trope that infuses her with the spirit of Western individualism, while her role among the Mazatec people becomes a side note.¹⁶¹

Reducing Sabina to nothing more than the woman who connected Wasson to his “discovery” of mushrooms is both very neoliberalist and very American. Western culture encourages and is complicit in colonialism so much so that even the tools used to remember Sabina by were constructed by the very man who exploited her.¹⁶² Erasing and rewriting indigenous people into narratives that center white men as the founders of psychedelics exemplifies the tired old saying of, “history is written by the victors.” The neoliberal ideologies that permeate the motivations of leading institutions like Harvard Law School to internationally renowned magazines like *The New Yorker* result in the layman’s knowledge and perception of psychedelics to hinge on the experiences of white men and their personal understandings rather than thousands of years’ worth

¹⁵⁸ Greenberg, *supra* note 35.

¹⁵⁹ *Id.*

¹⁶⁰ See generally Carolyn Gregoire, *Inside The Movement To Decolonize Psychedelic Pharma*, *PROTO.LIFE* (OCT 29, 2020), <https://proto.life/2020/10/inside-the-movement-to-decolonize-psychedelic-pharma/>.

¹⁶¹ Bett Williams, *What Made María Sabina Unique*, *DOUBLEBLIND MAGAZINE* (Oct. 12, 2022), <https://doubleblindmag.com/maria-sabina-psychedelics/>.

¹⁶² See MARÍA SABINA, MARÍA SABINA AND HER MAZATEC MUSHROOM VELADA (1974); see also Wasson, *supra* note 20.

of traditional knowledge. But for these indigenous practices, the West would not have the widespread knowledge that exists today about the functions and healing properties of these plants. For some groups, like Wixárika and Native American church, it is antithetical to remove the culture from the plant because they are one in the same. There cannot be one without the other because their connections have been intertwined for over a millennia, with ceremonies passed down, built upon, and transformed as the population progressed. Capitalizing off such knowledge will lead to the continuous asterisking of indigenous stories, perspectives, and livelihoods for the sake of capitalistic exploits.

Such danger is further illustrated by the immediate aftermath of Wasson's article. The influx of superficial attention following the publication of *Seeking the Magic Mushroom* brewed resentment among many of the villagers in Huautla de Jimenez.¹⁶³ Wasson's publicization of his exploits resulted in Sabina's ostracization from the only community she had ever known. She was briefly jailed, her home was burned down and her son, the same one depicted in the photographs of Wasson's article, was killed.¹⁶⁴ In 1970, a musical inspired by Sabina debuted at Carnegie Hall.¹⁶⁵ The same year, an anthropologist found her impoverished and living in rags.¹⁶⁶

Mexican-American novelist and writer, Chloe Aridjis, who had met Sabina as a child, reflected on the life and death of the *curandera*, "[h]er final years were marred by poverty, illness and misfortune. . . Death was approaching, she was aware of her suffering; she was born poor and would die poor."¹⁶⁷

In 1985, María Sabina died in a hospital in Oaxaca from old age exacerbated by bronchitis, malnutrition, and pneumonia.¹⁶⁸ It is but a cruel twist of fate that forty years later, psychedelic mushrooms are being utilized "in a manner much closer to what María Sabina considered to be their true purpose: to heal the sick."¹⁶⁹

Economic and social incentives do not always align, but positive goals are not necessarily fiscal goals. Western complicity is never more prominent than when taking into account the original impacts of colonialism on Mesoamerica coupled with the new wave of colonization brought on by Wasson's article. Both the primary sources in psychedelic literature and Western culture serve to uphold generations of purposeful ignorance when it comes to how the West has detrimentally affected indigenous cultural property and knowledge. Following an interminably long history of violence and opposition, the acts of benefit

¹⁶³ María Sabina, *supra* note 128.

¹⁶⁴ Siff, *supra* note 60; *See also* Wasson, *supra* note 20.

¹⁶⁵ Allen Hughes, *Mexican Cult of 'María Sabina' Is a Poetic Premiere at Carnegie*, THE NEW YORK TIMES (April 18, 1970), <https://www.nytimes.com/1970/04/18/archives/mexican-cult-of-María-sabina-is-a-poetic-premiere-at-carnegie.html>.

¹⁶⁶ *See* Siff, *supra* note 60.

¹⁶⁷ Aridjis, *supra* note 66.

¹⁶⁸ *See* KARTTUNEN, *supra* note 83.

¹⁶⁹ Kabil, *supra* note 65 at 15.

sharing, prior informed consent, centering indigenous voices, and embodying *ayni* are only some of the ways emerging psychedelic pharmaceutical companies may be able to proceed.

Constitutional law professor Konstantin Gerber warns of the industry's vulnerabilities and potential for exploitation, asking "Why is the so-called psychedelic renaissance, including commodification, almost exclusively benefiting nonindigenous Western businessmen?"¹⁷⁰ For psilocybin in particular, it is crucial to accentuate how intimately intertwined it is with Mazatec cultural heritage.¹⁷¹ It is equally important to remember how Western colonial forces ranging from Cortes and the Spanish to J.P. Morgan executive R. Gordon Wasson suppressed such practices. Gerber feels compelled to ask, given "[t]he motivations behind a highly profitable business selling psilocybin as a panacea for this century . . . will this treatment really be affordable to all social stratum, or only for a privileged part of society?"¹⁷² Perhaps just as importantly, we ought to inquire whether this new era of modern medicine will retain the traditional communal values under which it originally flourished.

¹⁷⁰ Gerber et al., *supra* note 21, at 576.

¹⁷¹ *Id.* at 576-77.

¹⁷² *Id.* at 577.