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A BRIEF EXPLORATION OF
Psilocybin-
Containing
Mushrooms

FROM THE 1950S TO TODAY

Gordon Wasson 1957
Life Magazine cover.

AVERY STEMPEL

Psilocybin-containing mushrooms have been making headlines for all the right reasons. From BBC World News and CNN, to small local newspapers like the Albany-area Times Union, reporters are introducing the general population to the world of fungi through flashy headlines and introspective thought pieces.

Here is a brief history of the modern world's exploration of psilocybin-containing mushrooms for those who are curious about how we got where we are today.

Prior to Western culture's attention over the last 80 years, various people around the world had incorporated psilocybin-containing mushrooms in their rites of passage, healing rituals and important ceremonies for hundreds, if not thousands, of years. In 1927, Russian-American ethnomycologist Valentina Pavlovna Wasson introduced her husband R. Gordon Wasson to the world of fungi. Their interest led them to Mexico, where they encountered Maria Sabina, a Mazatec Shaman, who agreed to allow R. Gordon to partake in a ceremony. In 1957 Wasson published an article in *Life Magazine* that introduced popular culture to the mind altering effects of *Psilocybe mexicana*. Mr. Wasson provided spores to chemist Albert Hoffman, who isolated the active compounds psilocybin and psilocin. An explosion of interest in the mind-altering effects of psilocybin-containing mushrooms occurred among researchers seeking to understand how humans think and feel and in the growing counterculture interested in directly experiencing altered states of consciousness.

In 1970, President Nixon signed the Controlled Substances Act into Federal Law. This new act listed psilocybin as a Schedule I drug with “no known medicinal benefits.” All active research into the impact of psilocybin on mental well being in the United States was effectively ended. Personal consumption was made illegal and pushed underground. This action also isolated any mycologist advocating for the study of psilocybin-containing mushrooms and stigmatized their mention in academic circles.



Psilocybe ovoideocystidiata in situ.

Throughout the 1970s and 80s, very few and very limited studies focusing on psilocybin were allowed. During the 1990s, a resurgence of interest began to occur and more studies were approved across the United States. In 2000, Johns Hopkins

University received the first federal approval to study the effects of psilocybin in healthy individuals since the Controlled Substances Act was passed. According to www.clinicaltrials.gov, as of August 20, 2023 there are 127 studies currently approved across the world to study the effects of psilocybin. Researchers are proposing studies meant to investigate the impact of psilocybin on conditions ranging from concussion headaches [1] to mood and cognitive effects in healthy individuals [2]. There is now an active phase-3 study underway looking into the efficacy of psilocybin to ease the symptoms of treatment-resistant depression [3]. Completed studies carried out at NYU, Yale University, John Hopkins, Imperial College of London and other research universities in the last few years have sought to investigate psilocybin's effects on conditions such as depression [4, 5, 6, 7], suicidality [8], PTSD [9, 10], alcohol use disorder, [11, 12], addiction cessation for tobacco and opioids [13, 14], eating disorders [15, 16], end-of-life depression and anxiety [17, 18], frontline healthcare workers experiencing COVID-related burnout [19], debilitating migraines [20], and cluster headaches [21, 22]. Again and again, the efficacy of psilocybin to positively impact mental well being, aid in addiction cessation and foster relief from depression, anxiety, and other cognitive disorders has been proven. In May of 2023 the American Medical Association approved a Current Procedural Terminology code that would allow doctors and therapists to seek insurance reimbursement for providing psychedelic therapies [23]. In June of 2023, the FDA issued official guidelines on creating clinical trials using psychedelic medicines including psilocybin-containing mushrooms [24]. The FDA has also declared that psilocybin is a “breakthrough therapy” in treating major depressive disorder.

Today, a wave of interest in creating a safe system for regulated consumption has swept the world. On July 1st, 2023, Australia became the first country to legalize the compound psilocybin on a federal level for a very limited number of cases. Author Michael Pollan's book *How to Change your Mind* was turned into a Netflix documentary. *Fantastic Fungi*, a film in part about the medicinal impact of mushrooms, has also seen critical acclaim. Lawmakers across North America are proposing bills that would grant legal access to psilocybin in various ways.

Mexican Senator Alejandra Lagunes has introduced a bill to legalize and regulate psilocybin nationwide as an alternative treatment option [25]. In 2020, petition e-2534 to the House of Commons in Canada called for amendments to federal law that would allow adults to grow, possess, and share psilocybin-

containing mushrooms; the Minister of Justice and Attorney General of Canada responded that no changes would be forthcoming as relates to the Controlled Drugs and Substances Act. However, many exemptions for clinical trials and personal medicinal use have been granted [26] and in areas that have regionally decriminalized psilocybin-containing mushrooms, shops have opened and operate with impunity. As of August 20, 2023, there are 12 mushroom dispensaries open in Vancouver alone. At the federal level in the United States, Texas Republican Representative Dan Crenshaw, Michigan Republican Representative Jack Bergman, New York Democratic Representative Alexandria Ocasio-Cortez, and California Democratic Representative Lou Correa have introduced a provision to the National Defense Authorisation Act that would allow psychedelic therapy as a method of treatment for veterans and active-duty military personnel. Senators Cory Booker (Democrat - New Jersey) and Rand Paul (Republican - Kentucky) introduced the *Breakthrough Therapies Act* that would reschedule psilocybin down to a Schedule II substance [27].

In the United States, state by state and often municipality by municipality, laws are changing. Dedicated people are seeking to create systems for consumption of psilocybin-containing mushrooms that will not result in legal persecution. Groups such as New Yorkers for Mental Health Alternatives, Capitol Psychedelic Coalition in Maryland, Baystaters in Massachusetts, CT Cannawarriors in Connecticut, Psilocybin San Francisco in California, the Colorado Psychedelic Community, Psilocybin Assisted Therapy Association in Oregon, multistate organizations like Cluster Busters and the Psychedelics & Pain Association, and many more [28, 29] have been meeting with lawmakers at every level of government. New York has had multiple bills including psilocybin accessibility proposed during the 2022 and 2023 legislative sessions. In Massachusetts, 5 cities have passed referendums deprioritizing psilocybin: Somerville, Cambridge, Easthampton, Northampton and Salem. Bills have been proposed or passed in Arizona, New Jersey, Texas,



Psilocybe ovoideocystidiata in situ,
East Coast of North America.

Connecticut, Rhode Island, Massachusetts, California, Washington, Montana, Utah, Nevada, New Mexico, Kansas, Oklahoma, Minnesota, Iowa, Missouri, Hawaii, Illinois, Michigan, Kentucky, Ohio, West Virginia, Virginia, North Carolina, Georgia, Florida, Maryland, Pennsylvania, New Hampshire and Maine. Colorado and Oregon have passed decriminalization and regulation statutes. There are only 15 states that have not had any psilocybin-related legislation proposed [30]. Advocates, researchers, and politicians everywhere are gathering together to foster the blossoming perception of psilocybin's many benefits, disentangle the misperceptions created in the 1970s and destigmatize this group of fungi. A time is quickly approaching when psilocybin-containing mushrooms are a legally accessible option. 📌

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