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STAMETS

Psilocybin Mushrooms of the World

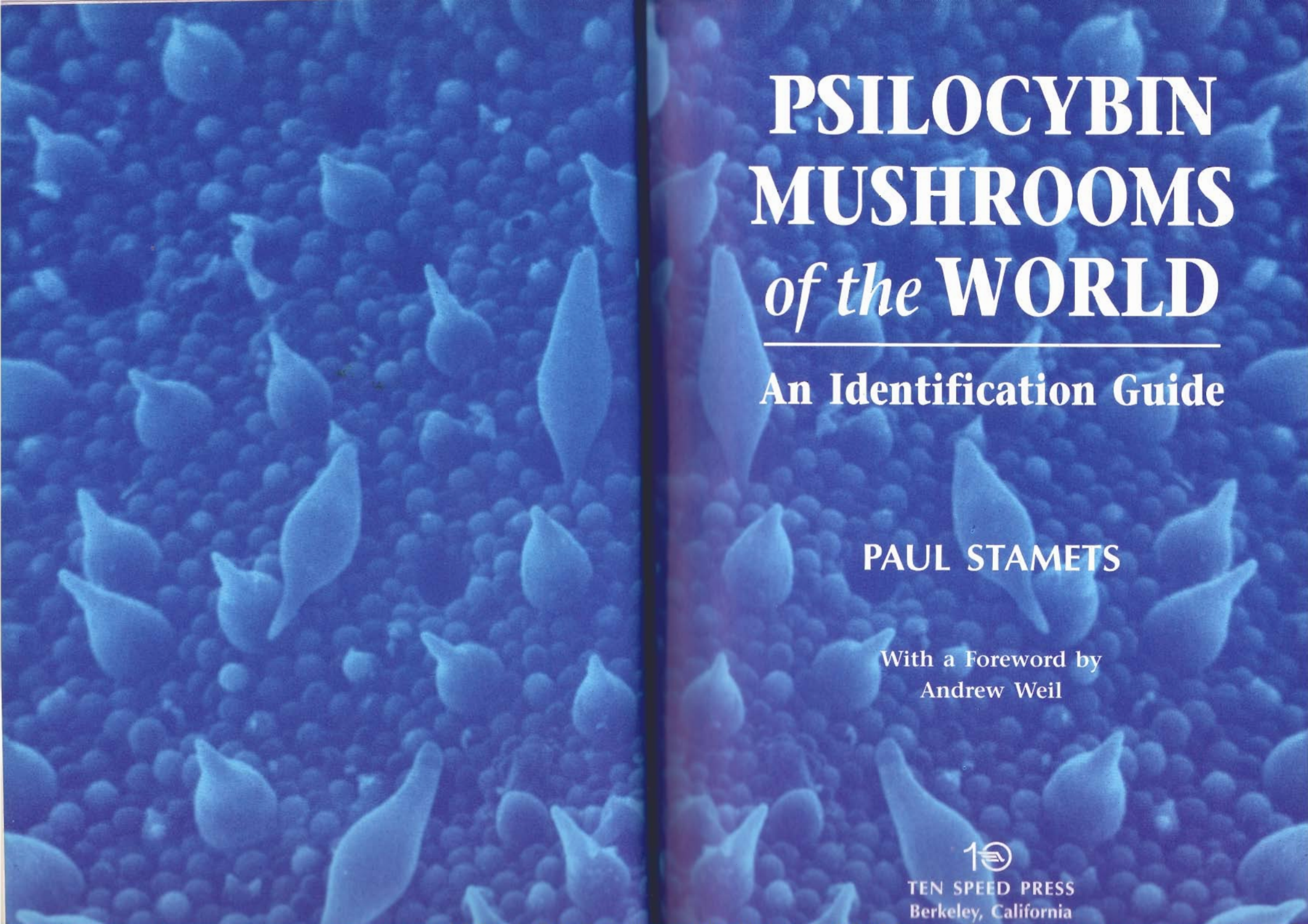
An Identification Guide

# PSILOCYBIN MUSHROOMS of the WORLD



PAUL STAMETS

With a foreword by Andrew Weil

The background of the entire cover is a high-magnification, blue-tinted micrograph of mushroom spores. The spores are densely packed and vary in shape, including many that are elongated and pointed at one end, characteristic of certain psilocybin mushrooms. The lighting creates a sense of depth and texture across the field of spores.

# PSILOCYBIN MUSHROOMS *of the* **WORLD**

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**An Identification Guide**

**PAUL STAMETS**

With a Foreword by  
Andrew Weil



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Berkeley, California

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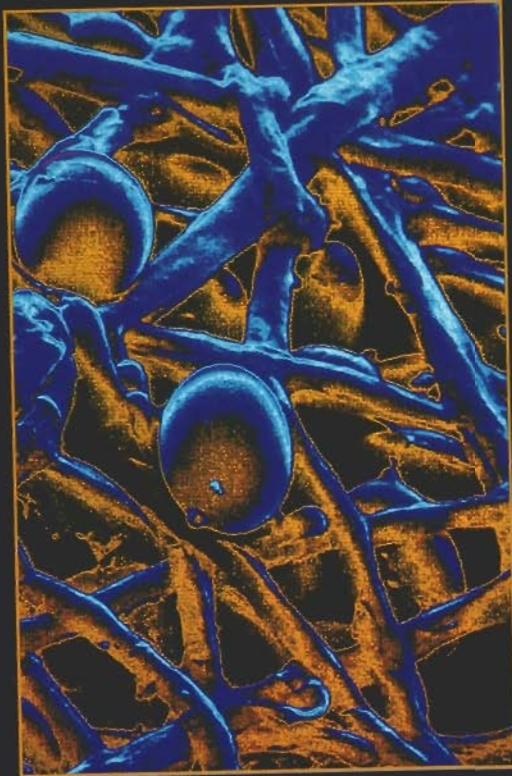
*To Cruz  
my wife and partner*

# Contents

*Ten Speed Press hopes this book will further public understanding and debate about psychoactive mushrooms and their possible benefits and risks. Possession of certain species of mushrooms described in this book may be restricted by law due to their chemical content. Ten Speed Press does not advocate violating any such law or using psychoactive mushrooms, and bears no responsibility for anyone's decision to do so.*

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Foreword . . . . .	ix
Introduction . . . . .	1
<b>1: Psilocybes from a Historical Perspective . . . . .</b>	<b>11</b>
<b>2: Global Ecologies and the World Distribution of Psilocybin Mushrooms . . . . .</b>	<b>16</b>
<b>3: Targeting Six Classic Habitats . . . . .</b>	<b>22</b>
<b>4: The Dangers of Mistaken Identification . . . . .</b>	<b>30</b>
<b>5: Good Tips for Great Trips . . . . .</b>	<b>34</b>
<b>6: Field Collection Techniques . . . . .</b>	<b>46</b>
<b>7: How to Identify Psilocybin Mushrooms . . . . .</b>	<b>53</b>
<b>8: The Major Psilocybin Genera . . . . .</b>	<b>67</b>
The genus <i>Panaeolus</i> . . . . .	67
The genus <i>Psilocybe</i> . . . . .	84
<b>9: The Minor Psilocybin Genera. . . . .</b>	<b>175</b>
The genus <i>Conocybe</i> . . . . .	175
The genus <i>Gymnopilus</i> . . . . .	178
The genus <i>Inocybe</i> . . . . .	185
The genus <i>Pluteus</i> . . . . .	190
<b>10: The Deadly Look-alikes. . . . .</b>	<b>192</b>
Glossary . . . . .	203
Recommended Reading and Resources . . . . .	215
Works Cited . . . . .	218
Acknowledgments . . . . .	231
Index . . . . .	233
About the Author . . . . .	245



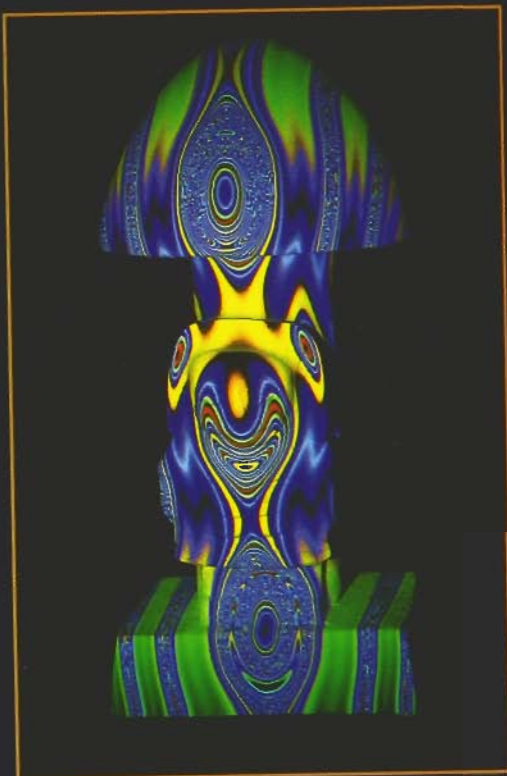
## Foreword

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THIS GUIDE IS A UNIQUE ADDITION to the literature on mushrooms in general and psychoactive mushrooms in particular. Paul Stamets has brought together a mass of accurate information, both textual and graphic, on mushrooms that contain psilocybin—far more species throughout the world than have ever been presented in this format, including several species new to science. Anyone interested in these distinctive products of nature will find this book an invaluable reference, whether from the point of view of the collector, the scholar, or the prospective user.

Most psilocybin mushrooms are small, dull-colored fungi that never attracted much notice in our culture until R. Gordon Wasson brought the traditional ceremonial use of magic mushrooms in Mexico to world attention in 1957. For some time thereafter, large numbers of Americans and Europeans streamed to remote areas of Oaxaca in search of them, unaware that equally potent species grew in their own countries, sometimes literally in their own backyards. This guide makes clear that psilocybin mushrooms are ubiquitous, and, as more people search for them, they will probably be found in almost every place on earth.

Psilocybin resembles melatonin, serotonin, and other neuroregulators in its chemical structure. Its effects on human consciousness are profound. What is it doing in so many mushrooms? Certainly, today the presence of this compound is an evolutionary advantage because many humans find it attractive, thereby helping to propagate those species containing it. But what about in the past? Perhaps all that one can say is that psilocybin mushrooms are an illustration of the interconnectedness of all life and consciousness in ways that are more wonderful and strange than our intellects can explain.



## Introduction

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I WAS NINETEEN YEARS OLD WHEN I embarked on my first book, *Psilocybe Mushrooms & Their Allies*. I was living in a mountain cabin near Darrington, Washington, and progress was slow and frustrating, in part because I was pounding away on a vintage Underwood typewriter whose keys required perpetual cleaning with toothbrushes. And yet, the project became a window into another dimension. Twenty years later, I am still collecting photographs and data on the subject. This book is an accumulation of research, both my own and my colleagues, through generations of experiences.

When my family first moved from a small town in Ohio to Seattle, I was mesmerized by my new horizons, marked by jagged, snow-capped mountains—a stark contrast to the bland scenery of the Midwest. On weekends, I would hike the trails of the North Cascades. I loved the rainforest—its smell, stillness, and sense of life quietly emerging all about me. Hiking up basalt-slotted canyons, fording over thundering waterfalls, or traversing ravines that led deep into the heart of dormant volcanoes, I found mushrooms everywhere. They lined the trails, bordered high alpine lakes, and dotted pristine meadows. Their shapes, sizes, and colors boggled the imagination, demanding recognition. An awakening began within me, one undoubtedly repeated for millennia. Mushrooms symbolized the bridge between life and death, between myself and the woodlands in which I lived. I sensed they were guardians of the sacred forests—conscious and watchful of my presence. Mushroom spirits soon enveloped my daily life, convincing me that they could be vehicles for greater good. I felt I had found my place within a continuum, and shared a sacred bond that spanned from the first paleolithic mycologists through the present, and to generations yet to come.

Against this backdrop of natural wonder, I worked as a logger, setting

chokers for a living. The pay was good, and the dangers satisfied a primal instinct. My long hair set me apart from the die-hard, tobacco-chewing men who tried to outdo each other with demonstrations of bravery and stupidity. The job kept me in the woods, strengthened my resolve for self-reliance, was aerobically unbeatable, and provided an escape from the only other source of employment: dusty lumber mills, which I detested. During this tenure as a logger, I was introduced to the startling array of mushrooms that many of my logger friends collected and ate. Their excitement upon discovering each new mushroom patch was infectious. Soon, my mind became a sponge for information about fungi. The subject seemed to have no boundaries—the more I studied, the more I realized how little I knew. My path had been set on a course that continues to this day.

That the psilocybin-containing varieties would be absent from such a mycological paradise seemed impossible. I began searching in university libraries for information on the psilocybin mushrooms, but soon learned that very few books even had *Psilocybe* listed in their indexes. Those that did had one peculiarity in common: all descriptions, photographs, and otherwise useful information had been torn out, leaving a gaping and depressing testimonial to the eagerness with which others had sought the same information. At this time, the mid seventies, most people seeking *Psilocybes* would make long treks to Mexico. Few realized that these “magic mushrooms” were commonplace in regions of North America and Europe. The few books available, I soon discovered, had misleading if not outright false information. Many of the authors lacked field experience and simply copied the mistakes of their predecessors.

During the course of my research, I was surprised to discover that active *Psilocybes* are rarely found in the woods of the Pacific Northwest. Curiously, the potent *Psilocybes* are scarce in the wild but prolific and secure in their niche in the cities. The woodland *Psilocybe*, *P. pelliculosa*, is the one exception—it thrives in wild but disturbed grounds such as trails, abandoned forest roads, and other similar habitats. In twenty years, I have found only one specimen of *P. pelliculosa* deep within a natural forest. I am continually amazed that the majority of wood-decomposing *Psilocybes* thrive not in the depths of the wilds but in the disturbed habitats of densely populated areas, such as landscaping around buildings. As the use of decorative wood chips for landscaping

became more common, a certain little brown mushroom began appearing with increasing frequency—a phenomenon that caught many off guard. Unfortunately, some of the world’s most poisonous mushrooms also thrive in this habitat. Distinguishing between the groups is not difficult, but a simple mistake can have deadly ramifications.

While researching *Psilocybe*, I became accustomed to meeting great resistance from professional mycologists, many of whom had an instant distrust of anyone expressing a passion for *Psilocybe*. There were some mycologists who stated publicly that it would be better for people to die from mistakes in identification than to provide them with the tools for recognizing a *Psilocybe* mushroom. This bizarre attitude towards *Psilocybe* mushrooms and the people who used them reflected a chasm between generations.

Some physicians even seemed to take a perverse pleasure in the needless pumping of stomachs of patients who had consumed psilocybin mushrooms. One doctor told me he does so to “teach them a lesson.” Ill informed doctors, intoxicated with the power of their presumed authority, gave themselves license to espouse anti-mushroom rhetoric that strayed far from the truth. Later, I discovered that the reactions of these doctors and mycologists were often simply a result of ignorance. Since the majority of the psilocybin mushrooms—unlike the common edibles—are rare in conifer forests, most mycologists seldom encountered them during their sojourns. These were the same mycologists whose expertise was relied upon by attending physicians.

Beginning in the mid seventies, a new subculture evolved from the fabric of the counterculture movement of the sixties. In the northwestern and southeastern United States, hunting for *Psilocybes* approached the status of a national sport. In certain pastures, dozens of mushroom hunters could be seen on a daily basis—stooping, squatting, slowly and methodically walking under the gaze of stupefied cows and sometimes hostile farmers. I once estimated that each day during the fall, several thousand people were hunting *Psilocybes* in the fields of western Washington. The wave of interest soon became an invasion—a pandemic and a cause célèbre for an entire generation.

Jeopardizing and illegal-possession cases clogged the courtrooms. Hospitals saw more accidental poisonings and overdoses than ever before. Law enforcement officials, weary of the onslaught, typically prosecuted

violators for misdemeanor trespassing rather than felony possession. I attended one packed court hearing where thirty individuals, including a friend, all pleaded guilty to trespassing. Each paid a fifty dollar fine. The entire court proceeding was clouded with a circuslike atmosphere; to be prosecuted for mushroom picking was of course totally absurd.

Ironically, each one of those pickers—knowingly or not—became agents for dispersing spores into more and more habitats. To this day, the grounds around the county courthouse and sheriff's department remain one of my favorite places to find *Psilocybe cyanescens* and *Psilocybe stuntzii*. Other favored sites include college campuses, utility substations, hospitals, office complexes, and ornamental gardens.

By the mid eighties, whole cities were overrun with *Psilocybes*—from Vancouver, B.C., to San Francisco. The growth of suburbia was expanding the zones of colonization. In particular, the marketing of wood chips (beauty bark) for landscaping continues to drive the *Psilocybe* revolution. Guerrilla inoculations became commonplace. Legions of Johnny Appleseed types traveled throughout the land carrying cardboard boxes filled with white, rosy mushroom mycelium. Grateful Dead concerts became favorite sites for distributing *Psilocybe* cultures. Private patches proliferated, as well as “mushrooms-for-the-people” beds in public parks, arboretums, nurseries, zoos...virtually anyplace where sawdust was used. Public domain beds—planted or natural—attracted new enlistees and they, in turn, created satellite colonies. The result is a continually unfolding, exponential wave of mycelial mass. The yearly splitting and expanding of mushroom beds has created mycelial footprints from Washington to New York, from Arizona to Canada. Similar trends in Europe soon followed. Many of the people I've met tell me they are on a vision quest; they believe that the world will become a more spiritual and peaceful place with each new mushroom patch. Many feel a deep, ecologically awakened attachment to the Earth, and believe that they are crusaders saving the planet. At any rate, they are succeeding in expanding the domain of psilocybin mushrooms.

In the past twenty years, the once-rare *Psilocybes* of the Pacific Northwest have come to dominate the populations of mushrooms found in wood chips. Their prevalence is a testimony to evolutionary success. *Psilocybes* cannot be eliminated from urban habitats. I don't know of any means for getting rid of them that wouldn't result in an ecological

catastrophe. Mushrooms will be present as long as there are plants. They are a direct index of a healthy and biodynamic ecosystem.

During the winter of 1975, my life was changed by an event that challenged my concepts of time and space, and called into question my notion of reality. A relative, after years of collecting mushrooms in Mexico and Colombia, was now attending school in Seattle and was on the lookout for *Psilocybes*. At that time, we knew of several yet-to-be-named species that were growing around the University of Washington campus. One mid-November night he telephoned me in great excitement. “I found them!” he shouted. I warned him that it is difficult and unwise to identify mushrooms over the phone, but I also knew that he is mycologically astute, having a good understanding of features critical for identification, so I said I would give it a try.

We went down the checklist. I asked what color the spore print was. Dark purple-brown to nearly black, he replied. Was there a bruising reaction? Yes, the veil and base of the stem turned bluish when damaged. Was the cap covered with a translucent skin that could be pulled off? Yes, he could peel it off by slowly breaking the cap apart. I was cautiously optimistic. From his description, it sounded as if he had found a *Psilocybe*—probably a new species soon to be identified in the literature as *P. stuntzii*, in honor of Dr. Daniel Stuntz, professor emeritus at the University of Washington. “How many did you find?” I asked. “You wouldn't believe it,” he replied, teasingly. That was all I needed to hear. Early the next morning, I drove to Seattle. Sure enough, when I arrived at his house, beautiful clusters of *P. stuntzii* were laid out on the kitchen table. His roommates huddled nearby as I confirmed identification. “Where did you find them?” “Come with me,” he responded, barely concealing his excitement.

We embarked down University Avenue, equipped with a dozen paper grocery sacks. Near a busy intersection, we parked our car beside a power substation, which was landscaped with wood chips. “We're here!” he announced. I looked around. There seemed to be more pavement than open ground. I was perplexed, not realizing what “here” meant. Then, out of the corner of my eye, I saw the patch. He had good reason to be excited.

The mother lode must have numbered into the tens of thousands. There were so many mushrooms that the caps tightly touched, creating

an elevated plateau four inches off the ground. The force of the fruiting was so great that sticks, leaves, *everything*, was lifted up over a contiguous fifty-by-fifty-foot area....Since the patch was located directly across from a busy Seattle police station, we began filling the paper sacks in great haste. Several students, noting our distinctive posture, stopped to join in the foray. In a matter of minutes, all had been picked. To this day, I have never seen another outdoor patch with such a concentrated eruption of mushrooms.

Upon returning to the house, we were faced with the daunting task of separating, cleaning, and drying our collection of a lifetime. We started making mushroom smoothies: yogurt, bananas, and mushrooms, which formed a thick, mudlike concoction with a very unpleasant flavor. Since our research had already determined that *P. stuntzii* was not a potent *Psilocybe* compared to *P. cyanescens* or *P. baeocystis*, I gave the best advice I could. "Try thirty to fifty mushrooms," I suggested, with some bravado. My estimate was buoyed by the fact that these were all experienced trippers, all Yale graduates, good friends, and for the most part emotionally strong enough for a high dose—should I have slightly overestimated.

In twenty minutes we started to experience the first stages of liftoff. The first hour is often the most unsettling part of the experience; later stages bring a familiar reassurance. Two hours into the experience, we could sense a slowing of intensity, and at three hours we plateaued. The dose was strong and richly rewarding. Unfolding geometric patterns surged towards me in wave after wave of beauty and complexity. My thoughts centered on God, evolution, the living earth, the infinite universe, the forces of good and evil, the mystery of death, and the paradox of time. We carefully stepped through the thousands of *Psilocybes* surrounding us on newspapers, covering virtually every available square foot of floor space except for narrow walkways. The enormity of our discovery humbled us. Awestruck, we christened our find The Great Boat Street Patch.

An hour or two past midnight, about six hours from the first mushroom smoothie, I went to bed. Geometric patterns continued to light up my field of vision as I descended into sleep. Several hours later, in the twilight between sleep and wakefulness, a peculiar and strangely real dream enveloped me.

I was at college, desperately trying to return to my mountain cabin as if my life depended upon it. This sense of urgency preempted all

other priorities. *Go back*. Go back quickly. In dream state, I drove hurriedly into the mountains. Then, turning a corner on a country road, I came into a broad river valley lit up with a cold, clear light. The valley had flooded. Floating, dead, and bloated in the frigid sunlight were hundreds and hundreds of cows. The dream abruptly ended and I awoke in a cold sweat, struck with a fear of impending disaster.

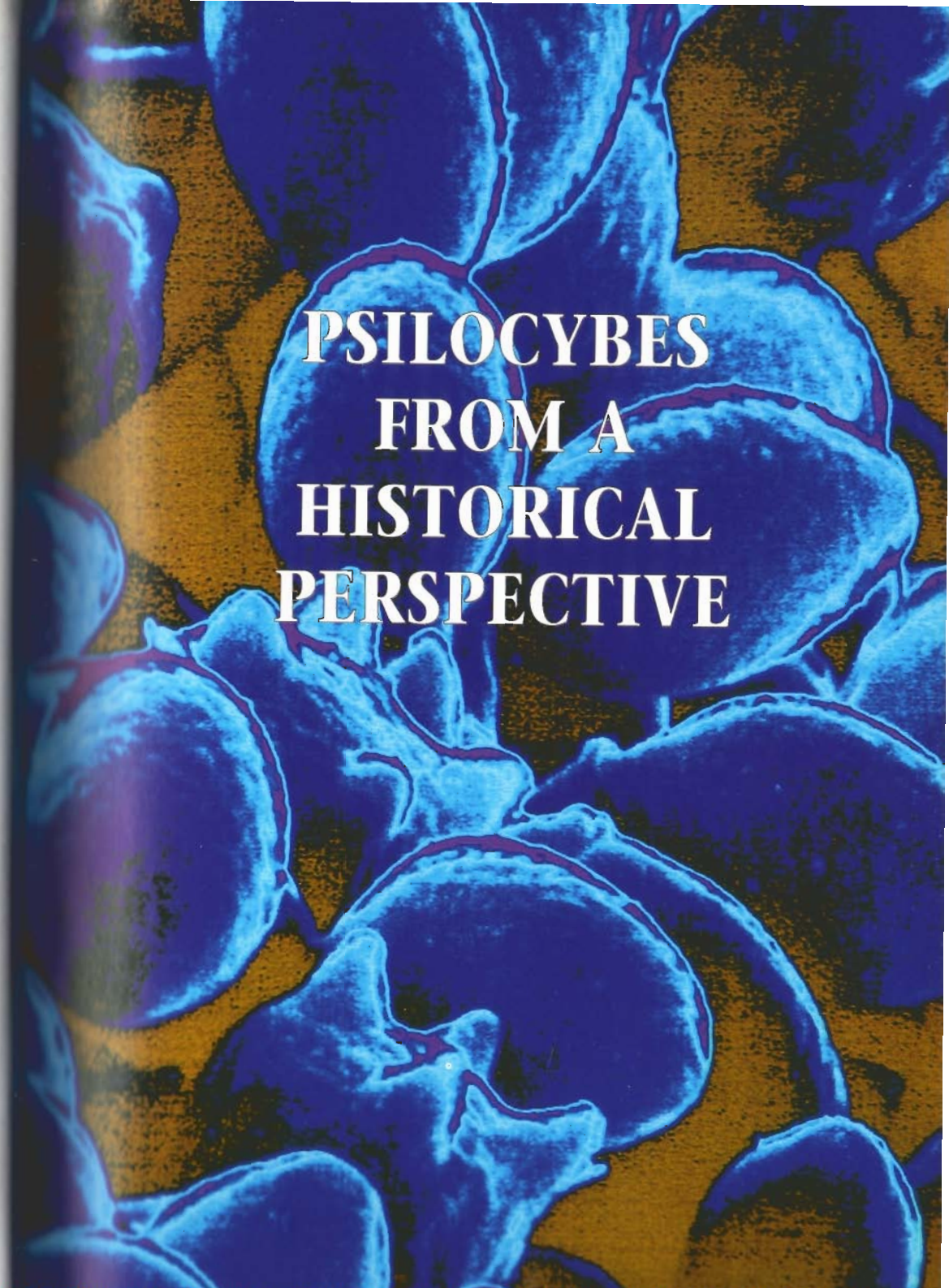
I went downstairs and told my friends. This was like no dream I had ever had; there was a particularly foreboding strangeness to it that struck to the very core of my being. I feared there would be something like a nuclear war...maybe the USSR would attack, the snow would melt from the heat of the nuclear fireballs, and cows would be killed from the ensuing floods! My friends, not taking me seriously, began to joke. However, one person was curious enough to ask when this catastrophe would strike. I told him it would happen soon....I did not know when, except that I knew it would be on a weekend. He pointed to a date on the calendar two weeks out, December 1, and I knew that was it. He wrote "Paul says Doomsday" on that date, and the conversation changed course.

Two weeks later, after torrential rains and nearly record-breaking snowfall in the Cascades, an unusual temperature inversion swept over western Washington. Temperatures soared in the mountains, and the sudden thaw turned brooks into raging rivers in a matter of hours. Trees, houses, and bridges were flooded. My cabin, located only twenty feet from a glacial creek, was in immediate jeopardy. I knew that if I could not return quickly, all could be lost—my reference books, my manuscripts, all my personal belongings. The next day, I drove back to Darlington only to meet closures at one bridge after another. Finally, I drove a circuitous route, adding nearly a hundred miles to my trek, to find that my cabin was still safe but now ten feet closer to the raging river. The next day, I packed everything and headed south to Olympia. As I entered the Snohomish Valley, I stared in disbelief at hundreds of cattle who, stranded by the rising waters, had drowned overnight. It was December 1, the exact day my dream had foretold. This single event shattered my concept of linear time. The future can be foreseen.

Now I knew what shamans have known for centuries: the psilocybin experience can facilitate precognition of the future—especially, as in my case, of an impending biological disaster. Now I understood why the Mazatecs and Aztecs affectionately referred to *Psilocybes* as divinatory mushrooms, genius mushrooms, and wondrous mushrooms. They

recognized that mushrooms are powerful sacraments and a significant evolutionary advantage for those sensitive enough to heed the call.

This book will be your guide to these sacred mushrooms, giving you the necessary tools for safely identifying psilocybin mushrooms throughout the world. The path is ancient, noble, and for many, holy. I sincerely hope that you will discover the capacity of mushrooms to lead to a new type of consciousness. Be careful, observant, respectful, and wise. The mushroom will be your teacher.



# PSILOCYBES FROM A HISTORICAL PERSPECTIVE