

The Forgotten Drug Trips of the Nineteenth Century

Long before the hippies, a group of thinkers used substances like cocaine, hashish, and nitrous oxide to uncover the secrets of the mind.

By [Clare Bucknell](#) April 17, 2023

For the philosopher William James, inhaling nitrous oxide was critical research for his theory of consciousness. Photograph courtesy Houghton Library

More than fifty years before it was isolated as a drug, Samuel Taylor Coleridge dreamed up cocaine. In the early years of the nineteenth century, the poet was increasingly dependent on opium, a "*free-agency-annihilating Poison*," as he called it, which sapped his will and made him despondent. "A Gymnastic Medicine is wanting," he wrote in his notebook during the winter of 1808-09, "a system of forcing the Will & *motive faculties* into action." The medicine he envisaged would be a kind of anti-opium, a tonic to kick-start the nerves, restore the mind's athletic powers, and repair the broken link between volition and accomplishment. It would be a second, health-giving "poison" to work on the first.

Coleridge's hope was a characteristic expression of the drug

culture he belonged to. He was intimately acquainted with how drugs shaped his inner life, and his habit of self-interrogation, the minute attention he paid to his states of mind, was shared by his friends and collaborators. Thomas De Quincey, his former secretary, turned his own, unconquerable opium addiction into a wildly popular autobiography, "Confessions of an English Opium-Eater" (1821), in which he mapped the buried palaces of the mind. The young chemist Humphry Davy, whom Coleridge befriended, experimented with the psychoactive properties of nitrous oxide, administering it to willing subjects and logging their descriptions of heightened imaginative capacities. And Charles Lamb, the poet's former schoolmate, placed alcoholism under the microscope in "Confessions of a Drunkard" (1822), an essay in which he considered, under the guise of his alter ego, Elia, the perverse dependence of his reasoning abilities on intoxication. In each case, drugs figured not only as sensory agents, sources of pleasure or pain, but as a kind of education: tools you could think with, or try to think against.

Mind-altering substances were available in the West long before De Quincey's opium voyages or Davy's gas experiments. During the sixteenth century, the stimulants that arrived in Europe from other continents—coffee, tea, chocolate, tobacco—were valued chiefly for their physiological virtues: tea was believed to remove headaches,

coffee to help the circulation of fluids. (Not everyone was convinced: a London pamphlet published in 1674, purporting to speak for "several Thousands of Buxome Good-Women," complained that coffee, by "*Drying up the Radical Moisture*" of the body, had "*Eunucht*" their husbands.) But drugs were also known to affect the workings of the mind. In 1608, the philosopher Francis Bacon took purgative pills to address "a symptom of melancholy"; the scientist Robert Hooke, who, as the scholar Lisa Jardine has argued, developed a "regimen of regular drug-taking" to manage stress, observed in his diary how particular substances seemed to influence his intellect. ("Took Childs vomit [. . .] Slept little at night. My fantcy very cleer.") Drugs with psychoactive properties were part of a larger quest to fine-tune the human condition, making the business of living more pleasurable or more bearable.

In "*Psychonauts: Drugs and the Making of the Modern Mind*" (Yale), the cultural historian Mike Jay argues that the post-1800 use of mind-altering drugs was nonetheless qualitatively different from the experiments of previous centuries. What set someone like De Quincey apart, Jay writes, was that he used opium "as a device for exploring the hidden recesses of his mind," dosing not merely to self-medicate, or to escape the world, but to access mental spaces unreachable without it. De Quincey was a "psychonaut," plumbing the depths of his consciousness,

embarking on fantastic inner quests. His work, like Davy's, "marked the beginning of the modern understanding of the drug experience": a pattern of pioneering inquiry into novel states of mind and the limits of "objective" truth.

Jay is a leading expert on the history of Western drug use, and "Psychonauts" is the latest in a series of excellent studies in which he has investigated the roots of a kind of psychoactive exploration that we tend to associate with the nineteen-fifties and sixties. The upstarts of the counterculture, Jay notes in "Emperors of Dreams: Drugs in the Nineteenth Century" (2000), had their reasons for claiming to be "the first generation to discover drugs." But, in doing so, they obscured a culture of psychological, philosophical, and aesthetic experimentation that predated the emergence of "drugs" as a problematic category, and of the "drug addict" as a pathologized type. Recovering that culture requires venturing inside the worlds that each substance opened up. When a psychonaut breathed ether or injected cocaine, where was he hoping to travel?

The technology of nineteenth-century drug exploration, in both professional scientific circles and amateur intellectual ones, was the self-experiment. Since the seventeenth century, scientists had considered this the best method to understand substances that affected moods and perceptions: trying them on other human subjects was a

risk, and animal experiments could provide only external indications of mental changes. By the end of the eighteenth century, when Davy inhaled his first dose of nitrous oxide, the self-experiment was an established practice, with its own protocols and reporting conventions. Its Achilles' heel, for some, was the way it mixed competing kinds of observation. As the young Sigmund Freud, investigating cocaine as a medical student in the eighteen-eighties, realized, it involved a self-splitting, an impossible assertion of two types of truth at once—that of the researcher and that of the experimental subject.

This tension defined the psychonauts' project. Davy experimented under the aegis of Thomas Beddoes, a physician who believed that the new science of pneumatic chemistry—the study of gases—could supply a revolutionary cure for lung diseases such as tuberculosis. At Beddoes's Pneumatic Institution, in Bristol, the pair administered nitrous oxide to consumptives and palsy sufferers, assessing the miraculous way in which one patient, who had been unable to walk without crutches, responded to the surging "muscular pressure" that the drug seemed to supply. But their experiments soon took a less therapeutic turn. Davy's "highly pleasurable" experience of the gas, coupled with Beddoes's own—under its influence, he felt "bathed all over with a bucket of good humour"—indicated that it might benefit healthy subjects as much as ill ones. It produced

ecstatic sensations, but also seemed to stimulate the intellect and the imagination.

The team began to study healthy volunteers, among them Coleridge and the poet Robert Southey, who described their intoxications in a richly metaphorical style: a "language of feeling," as Davy put it. One subject, a local doctor, compared the gas's revelations to "reading a sublime passage in poetry when circumstances contribute to awaken the finest sympathies of the soul." Davy himself enjoyed walking alone beside the river on summer nights, "sipping away" at a bag of nitrous oxide and occasionally losing consciousness. In late 1799, having exposed himself to huge quantities of the gas in an airtight chamber, he reported that he "lost all connection with external things," which had ceased to possess their own reality. "Nothing exists but thoughts!" he blurted out, coming down from his high. In the chamber, for a brief moment, the gas had transported him to a place that was constructed entirely by his individual consciousness.

Such revelations, impossible to communicate, were easily mockable. In the early decades of the nineteenth century, Davy and his circle were satirized as a bunch of dreamy, self-important metaphysicians, "blown up" with their own pomposity. By mid-century, the mind-altering properties of nitrous oxide had been mostly forgotten; along with ether, a

volatile compound with similar effects, it was firmly entrenched in the sphere of medicine, as a path to painless surgeries. Meanwhile, a fresh generation of scientists had begun to challenge the practice of self-experimentation, which they considered an unreliable, romantic approach to the study of the mind. "Subjective experience was being pushed to the margins," Jay writes: the new, "objectivist" science distrusted personal observation. A true study of drugs, its exponents believed, would require precision instruments, stress the analysis of external data—dosage, symptoms, times of onset—and record the results exclusively in notebooks, not essays or poems. It would thereby avoid "introspection," which, as Jay writes, risked shaping "mental phenomena into narratives pleasing to the self-observer." Such creativity might inspire great art, but it produced bad science.

To a stubborn handful of psychonauts, though, the most "objective" data about drugs were precisely those culled from experience. Jay foregrounds Jacques-Joseph Moreau, a mid-nineteenth-century French psychiatrist who encountered hashish—the concentrated, hallucinogenic extract of the cannabis plant—while travelling in the Middle East. Hashish was then known to Westerners mostly secondhand, its effects filtered through the lens of fictions such as "The Arabian Nights." When Moreau took a strong dose in 1840, however, he found that it was uniquely

educative in the psychiatric context. Each of the effects he experienced could be read as a symptom of mental illness: the nervous excitement, the distortion of space and time, the hallucinatory perceptions. Hashish took him to a place that looked and felt like insanity, then led him, temporarily, inside it. It allowed him to understand his patients with greater nuance: he could now recognize what "the ravings of a madman" were like, having "raved himself." "Personal experience," he wrote, "is the criterion of truth here."

"It's totally pointless—that's what makes it art."

Cartoon by David Sipress

The science of private experience inspired explorations beyond hashish. Benjamin Paul Blood, an American philosopher and mystic, observed that the revelations he received while on ether were impossible to achieve in the "normal sanity" of the mind. Like Moreau's heightened grasp of mental illness, their profundity depended on a certain derangement. The Harvard philosopher William James, who read Blood's work, was prompted to self-experiment with nitrous oxide in 1882, recording an "intense metaphysical illumination" akin to Blood's own. The truth of this illumination, James believed, lay in its incommunicability. Like the mystical states of mind he described in his landmark study "The Varieties of Religious Experience" (1902), it had to be "directly experienced," and this was what made it significant. That the rational mind could not access it proved

that human consciousness was not singular but shifting, multiple, many-layered. "Rational consciousness is but one special type of consciousness, whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different," James wrote. He called this vision of reality the "multiverse."

Moreau was careful to clarify that hashish, by generating the symptoms of mental illness, had not really driven him mad. During his intoxication, he had remained aware of himself and where he was, finding that he could "observe calmly," Jay writes, "as a procession of impossible phenomena marched through his mind." Other hashish users reported a similar feeling of self-splitting, of being both absorbed in the drug's visions and conscious of their unreality. In his Middle Eastern travelogue "The Lands of the Saracen" (1855), the American writer Bayard Taylor recounted being transported, in his imagination, to the Great Pyramid of Cheops, which was constructed of "huge, square plugs of Cavendish tobacco." Even at the height of the drug's influence, Taylor wrote, he knew he was "really" in a Damascus hotel. Moreau called this form of double consciousness an *état mixte*, a strange commingling of waking life and dream. Using hashish to treat his mentally ill patients, he theorized that it might enable a form of constructive therapy, in which hallucinations could be understood in the light of reason.

This idea helped reframe the psychonaut as a rational, composed observer, not merely exploring new worlds but ferrying some benefit home. Later in the century, those associated with the occult revival sought to instrumentalize drug use in a different way. In 1855, the French mystic Louis-Alphonse Cahagnet, who maintained that hashish could act as a portal to parallel worlds, passed his secrets to a travelling American, Paschal Beverly Randolph: a "Black Rosicrucian sex magician," Jay writes, who specialized in "marital problems," and who found in hashish his "defining magical aid." "Cahagnet, myself, and others, have been enabled to pass through eternal doors, forever closed to the embodied man save by this celestial key," Randolph enthused. He believed that the drug's *état mixte* allowed for insights that would "leap the world's barriers." He also believed that such insights could be bottled and sold. In 1862, when he returned to the U.S., he created a range of hashish-based elixirs promising clairvoyant powers, which he priced at four dollars each.

Spiritualists saw other possibilities in a drug-induced double consciousness. The London-based Society for Psychical Research, with which James was affiliated, was founded in 1882 to study questions "outside the boundaries of recognised science": apparitions, mystical experiences, life after death. Two of its members, Edmund Gurney and Frederick Myers, developed theories of multiple

consciousness related to James's, proposing the existence of the "secondary self," or "subliminal self"—buried strata of being that could be harnessed via hypnosis, séance, or drugs. Their fellow-spiritualist George Wyld, a physician, described inhaling chloroform for pain relief, only to see his soul, "clothed," "standing about two yards" away. Wyld theorized that anesthetics eliminated pain by literally expelling the soul from the body. (In H. G. Wells's short story "Under the Knife," from 1896, a chloroformed patient feels his spirit drawn upward and outward, soaring into the stratosphere.) Maud Gonne, who undertook occult experiments with the poet W. B. Yeats, sought similar effects in hashish, hoping to free her spirit and have it travel, "quick as thought," into astral dimensions.

Gonne, at the start of one trip, visualized a "tall shadow" at the foot of her bed. The apparition instructed her to go where she wished, but to remember the way back: "You must always keep the thought of your body as a thread by which to return." Among psychonauts, getting back—holding on to the thread that connected them to the world—mattered because it was what separated the voluntary hallucinations of drug use from the involuntary ones of madness. The British poet Arthur Symons, a prodigious hashish user, published his major critical work, "The Symbolist Movement in Literature," in 1899. Five of the French poets he discussed—Gérard de Nerval, Théophile

Gautier, Charles Baudelaire, Arthur Rimbaud, and Paul Verlaine—were *hashishins*, and he used their work to sketch a vision of literature as numinous, immaterial, gesturing toward an “unseen reality apprehended by the consciousness.” De Nerval had eventually lapsed into madness, and Symons argued that this was because he had let go of the thread that anchored him: “Leaving the concrete world on these brief voyages, the fear is that we may not have the strength to return, or that we may lose the way back.”

In the last decades of the century, using mind-altering drugs wasn't always about trying to escape the world. Sometimes it was a matter of adaptation, calibrating the brain to cope better with reality's demands. Freud's experiments with cocaine in the eighteen-eighties—first on himself, then on volunteers—centered on the possibility of a cure for neurasthenia, an increasingly diagnosed condition whose symptoms included headaches, anxiety, brain fog, and chronic fatigue. According to the disease's first theorist, the American neurologist George Miller Beard, neurasthenia was a distinctively modern ailment, its effects caused by civilization itself: the rapid growth of business and industry, the punctuality demanded by pocket watches and train timetables.

Freud, who self-diagnosed as a neurasthenic, had been

struck by the medical literature on coca, the South American plant from which cocaine had been isolated, in 1860. Early reports suggested that it might boost the nervous system's energetic capacity; Paolo Mantegazza, an Italian neurologist who had consumed the drug, noted a sense of being "drenche[d]" in a "new strength," "as a sponge soaks itself with water." Freud began to take small doses, and reported feeling "more vigorous and capable of work." (The tone of his accounts, Jay writes, flitted between fervid reflection and restrained appraisal: a "carefully modulated solution to the paradoxes of self-experiment.") Cocaine, Freud thought, was a miracle drug that would help the mind keep pace with the world's accelerations. Under its influence, neurasthenics might continue being neurasthenic, working harder and faster than was healthy, but with fewer obvious symptoms of breakdown.

And yet breakdown was increasingly apparent. Cocaine was soon available in pharmacies, and new, more efficient methods of consumption, such as subcutaneous injection, led to high-profile reports of wild behavior, excess, and dangerous metamorphosis. In 1887, the American neurologist William Hammond described injecting himself with a large dose of cocaine, "becoming an irresponsible agent," and waking up to find his library trashed. (The year before, Robert Louis Stevenson had published "The Strange Case of Dr. Jekyll and Mr. Hyde," in which a mysterious white

powder prompts a monstrous transformation.) In 1884, Freud prescribed a cocaine regimen to Ernst von Fleischl-Marxow, one of his senior colleagues at the Institute of Physiology in Vienna. Fleischl-Marxow was in the grip of an advanced morphine addiction; Freud hoped that the new drug would act as an antidote, lessening withdrawal symptoms. Within weeks, Fleischl-Marxow had a cocaine addiction to match his morphine one, developing insomnia and paranoia. He began using the drug self-destructively, lying to his friends, trying to hide his habit. It was as if, Jay writes, he "had been taken over by a second self, an alien or demonic force."

The process by which drugs were stigmatized, at the end of the nineteenth century, is the subject of Jay's final chapters. In his telling, it is a story of loss. In the eighteen-eighties, when Fleischl-Marxow was suffering, drug addiction was a new concept. The Society for the Study and Cure of Inebriety, led by members of the British medical profession, was founded in 1884; in 1885, cocaine addiction was identified as a novel condition. Gradually, even milder psychoactives were placed under the now ominous category of "drugs," and assumptions about the people who used them hardened into orthodoxy. Drugs were reconceived as antisocial—a means by which egotists avoided shared responsibilities—or as the preserve of those believed to lack self-control: the poor, the "mentally unfit," the criminal

classes. Between 1914 and 1916, new laws were passed in the U.S., Britain, and France to ban or restrict the drug trade, turning psychonauts into delinquents, voyagers beyond the bounds of civil society.

If their work endures, it's because it had less to do with substances than with the self. In the nineteen-fifties and sixties, the rediscovery of psychoactive experimentation involved new drugs and techniques, but it drew on older stories about human consciousness. William Burroughs praised the British engineer James Lee's writings on morphine and cocaine, describing them as "conjured from the unpolluted air of the nineteenth century." Both Aldous Huxley (experimenting with mescaline) and Robert Graves (mushrooms) quoted Wordsworth's poetry to convey the tenor of their experiences. In one sense, their imitative approach echoed their predecessors'. Psychonauting, from Davy's science of the sublime to Symons's numinous readings, had always been referential, metaphorically framed. The quest was for narratives of self-actualization, rather than for scientific models. "From fountain to fountain I danced in graceful mazes with inimitable hours, whose foreheads were bound with fillets of jasmine," the twenty-one-year-old American Fitz Hugh Ludlow wrote in 1857, weaving his hashish dreams into the familiar tapestry of "The Arabian Nights." Telling their stories was partly what brought the psychonauts back down to earth. ♦

