3

REEFER REBELLION

Seeds of Change

J. Edgar Hoover, the pugnacious director of the Federal Bureau of Investigation (FBI), put it country-simple for a lay audience when he declared in a widely quoted 1961 speech: "The three biggest threats to America are the Communists, the Beatniks, and the Eggheads."

America's secret police chief with the bulldog visage was exaggerating when he fingered the reds, for he knew that the Communist Party USA by this time was largely a front for government spies masquerading as authentic members. As for the eggheads—Hoover never bothered to explain who they were or why they were dangerous. But he was right about the Beats, even though the full scope of their disruptive impact had yet to be felt.

The Beats actually did pose a threat to the status quo, though not in a conventional political sense. Convinced that any serious attempt to transform mainstream society was futile in the forlorn Fifties, the Beats did not advocate organized political engagement. Theirs was more a call to consciousness than a call to arms. The task of remodeling themselves by pursuing experiences outside the cultural norm took precedence over changing political institutions. Other than a commitment to radical individualism and personal freedom, the Beats did not share a unified political outlook: Ginsberg was a red diaper baby and a left-wing libertarian; Burroughs was a conservative anarchist and a bit of a gun nut; and Kerouac retained some of the reactionary political views of his French Canadian Catholic working-class parents. Yet, by helping to jump-start a cultural revolution, this trio of writers was arguably as influential in shaping American lives as the three branches of the U.S. government.

"Woe unto those who spit on the beat generation," Kerouac warned, "the

wind'll blow it back." As cultural expatriates, the Beats linked cannabis to a nascent groundswell of nonconformity that would develop into a mass rebellion in the years ahead. They were the key transmission belt for the spread of marijuana into mainstream America. A trickle of white, middle-class pot smokers, once confined to jazz clubs, would become a nationwide torrent during the social tumult loosely known as "the Sixties." By the end of the decade, FBI undercover agents would be smoking marijuana and hashish in an effort to burnish their counterculture credentials and infiltrate radical groups.

A devout enemy of the herb, J. Edgar Hoover maintained that a marijuana user "becomes a fiend with savage 'cave man' tendencies. His sex desires are aroused and some of the most horrible crimes result." The FBI had it in for Ginsberg, in particular, because of the pot-smoking poet's unabashed homosexuality. This was a touchy issue for Hoover, a closet queer obsessed with hoarding information about other peoples' sex lives for blackmail purposes. Hoover pegged Ginsberg "potentially dangerous" and the FBI opened a case file on him.

Imbued with the zeal of a crusader, Irwin Allen Ginsberg was the original culture warrior for cannabis, a one-man, anti-reefer-madness wrecking crew determined to shake the foundations of pot prohibition. On February 12, 1961, he sang the praises of marijuana during a live appearance on a televised talk show anchored and moderated by John Crosby. Ginsberg was joined by anthropologist Ashley Montagu and novelist Norman Mailer. The poet quickly steered the discussion toward cannabis. All the guests agreed that ganja was a relatively benign substance that should not be illegal. Even the host acknowledged that the laws against marijuana were far too severe. Ginsberg later described the show as a "lucid advertisement for pot." The controversial segment on "Hips and Beats" generated extensive press coverage. This was the first time that the virtues of marijuana had been extolled on national television.

The Federal Bureau of Narcotics responded with a seven-minute videotaped rebuttal, which aired the following month over the objections of Crosby, who wrote a syndicated newspaper column complaining about the U.S. government's heavy-handed interference. Crosby called the FBN's retort "a lot of alarmist nonsense concerning pot, about which our Narcotics Bureau knows very little."

In the early 1960s, few Americans were aware of the history of marijuana and how it came to be criminalized. Anslinger's rabid fictions still held sway among mass media. Young people were taught that pot was a deadly menace. Ginsberg stood the mainstream view of marijuana on its head, recasting Anslinger's killer weed as something positive, a source of enrichment, a valuable tool for introspection, something healthy, refreshing, and enjoyable. In an

effort to generate a serious discussion about drug policy, Ginsberg circulated copies of the La Guardia Report, the seminal study that roundly debunked the notion that marijuana was a dangerous substance. Ginsberg tried to persuade commercial publishers to reissue the neglected La Guardia Report, but there were no immediate takers.

Ginsberg believed that marijuana could play a major role in opening hearts and minds and sensitizing people to social injustice. This is what he intuited while high on grass: "It was the first time I ever had solid evidence in my own body that there was a difference between reality as I saw it myself and reality as it was described officially by the state, the government, the police and the media. And from then on I realized that marijuana was going to be an enormous political catalyst because anybody who got high would immediately see through the official hallucination that had been laid down and would begin questioning, 'What is this war? What is this military budget?'"

Ginsberg maintained that smoking marijuana could be an educational experience, especially for someone who is intellectually curious. "Grass should be used with mindful attentiveness, rather than just for kicks," he advised. He credited the herb with provoking a more deeply sensual awareness, an aesthetic kind of concentration. Ginsberg said that under the influence of cannabis he grasped the complex, inner structure of jazz and classical music compositions. Occasionally, he would smoke some "tea" and visit an art museum, where he gazed upon the works of Cézanne and other great painters. He became acutely aware of "awe and detail" while stoned, as he explained with poetic precision: "Marijuana consciousness is one that, ever so gently, shifts the center of attention *from* habitual shallow, purely verbal guidelines and repetitive secondhand ideological interpretations of experience to more direct, slower, more absorbing, occasionally microscopically minute engagement with sensing phenomena."

But Ginsberg—who grew up tormented by his mother's mental illness and her death in a psychiatric institution—found that cannabis could also amplify unpleasant experiences, ingrained insecurities, free-floating anxiety. (Latin Americans had a name for panic reactions under the influence of marijuana—*muerta blanca*, or "white death.") At various times in his life, Ginsberg abstained from smoking pot entirely because it seemed to exaggerate his paranoia, a difficulty he attributed in part to the climate of illegality and the very real fear of arrest that hexed pot smokers in the USA.

Ginsberg saw some of the best minds of his generation crippled by habitual drug use, and he was careful never to get hooked on anything. He felt that overindulgence could have negative consequences even with a substance as benign as grass. Unlike Kerouac, Ginsberg never got into a fifteen-reefers-a-day routine. (Even Cassady, whose middle name was not Moderation, criticized Kerouac's obsessive pot smoking in Mexico.) Ginsberg's interest in cannabis and other drugs was largely experimental, whereas several of his close, excess-prone friends became addicted to alcohol and opiates. Unable to cope with his own notoriety and the media-skewed trajectory of the Beat scene, Kerouac would slowly drink himself to death.

A few weeks after Kennedy was elected president of the United States by a narrow margin, Ginsberg and his partner, Peter Orlovsky, visited Harvard University, JFK's alma mater, to participate in a psilocybin experiment conducted by psychology professor Timothy Leary. Psilocybin, a hallucinogenic drug derived from magic mushrooms, triggered fantastic visions similar to lysergic acid diethylamide-25 (LSD), an even more potent, mind-altering fungoid compound that Leary would also administer to volunteer subjects. Like cannabis, LSD was well regarded among scientists for its medicinal potential long before it gained a reputation for recreational abuse. Grass and acid would both be instrumental in catalyzing the countercultural rebellion that erupted later in the decade. Initially, however, cannabis was frowned upon by Leary's circle in Cambridge, Massachusetts. "Instinctively, Leary stayed away from marijuana because it was illegal. He didn't want to get involved with it at all," recalls Ralph Metzner, Leary's Harvard collaborator. LSD, on the other hand, was still legal and would remain so for a few more years.

Discovered in 1943 by Dr. Albert Hofmann, a Swiss chemist with Sandoz Pharmaceuticals, LSD was odorless, colorless, tasteless, and extremely powerful—properties that stoked the interest of American spies and military strategists during the early years of the Cold War. While U.S. Army brass were smitten by the notion of using LSD to wage psychochemical warfare, the CIA wielded the hallucinogen as a cloak-and-dagger weapon to disorient people and elicit information from uncooperative targets. Ironically, around the same time, many reputable psychiatrists were touting LSD as an adjunct for psychotherapy, a promising healing modality that could help neurotic patients confront and overcome their problems. A tiny dose of LSD seemed to have an uncanny ability to make the subconscious conscious, to illuminate long-hidden sources of stress by bringing to the surface whatever might be lurking in the depths of the mind; hence the word *psychedelic*, which literally means "mind manifesting."

When Leary launched his research project at Harvard in 1960, psychedelic drugs were one of the hottest topics of study in psychiatry. Although he was hardly a pacesetter in this regard, Leary became an instant convert. He was convinced that LSD held the key to unlocking the prison of personality. Leary and Ginsberg agreed that psychedelics could dissolve the old conditioned self

and stretch the mind to hitherto unknown limits, allowing a radical new being to emerge. In their messianic enthusiasm, they projected the therapeutic potential of LSD onto the social landscape. Leary began to trumpet acid as a cure-all for a sick society, a species-catalyst capable of catapulting humanity to the next evolutionary level. This was a tad too much for Harvard authorities, who fired Leary and his research associate, Richard Alpert, in May 1963 amid rumors of LSD-laced sugar cubes circulating among impressionable undergraduates. Undaunted, Leary embraced the role of Pied Piper with relish, brandishing his trademark grin and a knack for memorable one-liners. "Turn on, tune in, and drop out" was his well-publicized clarion call. Exiled from academia, he threw caution to the winds and promoted LSD as a miracle drug for seekers of everything from personal fulfillment and spiritual truth to better orgasms.

Ginsberg was traveling in Asia when Leary got his walking papers from Harvard. The poet's metaphoric and geographical journey to the East included a fifteen-month stay in India, where Ginsberg smoked hashish with naked *sadhus* (ascetics) near burning funeral pyres on the banks of the Ganges. "*Bom Bom Mahadev!*" the yogis shouted while raising the ganja pipe to their brows before inhaling. Dubbed "the leaf of heroes" and "the joy-giver," the resinous plant was central to everyday religious and social life in India and had been for many centuries. The Sanskrit root word for ganja meant "knowledge."

Ginsberg came to India hoping to learn from a culture with a living spiritual tradition. In addition to smoking a lot of ganja and drinking bhang, the ubiquitous cannabinated beverage, he studied meditation, mantra chanting, and other nondrug techniques of altering consciousness. He toured ashrams (religious communities) and various pilgrimage sites, joining two million devotees at the mind-boggling Kumbh Mela festival in Haridwar, held once every twelve years. The lessons Ginsberg brought back to the United States—and his subsequent Buddhist practice—would influence legions of Western youth who came of age in the 1960s hungry for alternatives to Judeo-Christian canon.

The zeitgeist was beginning to shift in the United States. JFK declared that a torch had been "passed to a new generation." A charismatic commander-in-chief and an elegant first lady—it seemed like a fresh start for America after the insipid Eisenhower era. What passed for change in Camelot, however, was often more style than substance and did not include the jettisoning of fundamental Cold War assumptions. But there were signs that the Kennedy administration was serious about revamping federal drug-control policy.

In a long-overdue move, JFK sacked Harry Anslinger in 1962. Kennedy wasn't enamored of Anslinger's roughneck cop mentality and his organization's chronic disregard for constitutional rights. With Anslinger forcibly

retired, top FBN officials engaged in rancorous infighting. Corruption was rampant among FBN agents in New York, Miami, and other cities; several narcotics officers were later shown to be actively colluding with heroin traffickers and street pushers. The Federal Narcotics Bureau, the most notoriously compromised department of the federal government, was a scandal waiting to blow wide open.*

It was time to set a new course. Kennedy authorized a committee to study America's narcotics problem. In 1963, the White House Conference on Narcotics and Drug Abuse concluded that the hazards of smoking marijuana were "exaggerated" and that harsh criminal penalties (which in Georgia, for example, included the death penalty for selling pot to a minor) were "in poor social perspective." For a country punch-drunk on antimarijuana hysteria, it was a momentary jolt of sobriety.

Kennedy was in no rush to affix his Hancock to the United Nations Single Convention on Narcotic Drugs, which Anslinger had vociferously championed. The 1961 Single Convention Treaty required all signatory countries to adopt and maintain domestic legislation and penal measures against cannabis and other drugs. Drafting and lobbying for the Single Convention's section on marijuana was Anslinger's last hurrah as FBN chief, the coup de grâce that would make it impossible for the U.S. government to relax its marijuana policies, or so he believed. "We've got it locked up so tightly now they'll never change the law," Anslinger exulted. But caveats in the text exempted hemp's medicinal and industrial applications from the new international treaty, which was formally ratified by the United States in 1968.†

After JFK was assassinated, there were whispers alleging that Kennedy had smoked pot in the White House with various female friends. Some claimed

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* In 1968, it became known that a number of federal narcotics agents in the New York office were in the business of selling narcotics or protecting dope dealers. FBN agents stole money, seized drugs (and did not turn them in), and looted apartments they raided. According to the Wurms Report, the FBN itself had been the major source of supply and protection of heroin in the United States. Several FBN agents were indicted, and eventually nearly every agent in the New York office was fired, forced to resign, or transferred. The Knapp Commission subsequently investigated and documented mass corruption in the NYPD (Epstein, *Agency of Fear*, pp. 105, 246; Ball, *Allen Verbatim*, pp. 63–65).

† Article 46 of the 1961 U.N. Single Convention Treaty stipulated that any signatory country can withdraw from the Treaty, and if enough countries choose to do so it shall cease to exist. The Treaty also asserts: "The medical use of narcotic drugs continues to be indispensable for relief of pain and suffering and . . . adequate provisions must be made to ensure the availability of narcotic drugs for such purposes . . ."

the president used the herb to soothe his back pain. Such rumors, though not implausible, remain unsubstantiated. But this much can be confirmed: During the Kennedy presidency, marijuana smoking increased exponentially among white middle-class youth, including some of America's best and brightest college students. And now that the genie was out of the bottle there was no way to put it back in.

In 1963, Caucasians for the first time comprised more than half of those arrested for marijuana violations in California, a bellwether state. Contrary to the usual scare stories, most people weren't tricked into puffing by a devious pusher. In ever-increasing numbers, American youth were introduced to cannabis by their friends. That fateful first joint or pipeful did not lead to ruin. It didn't turn them into miserable addicts or psychos or couch potatoes. More often than not, it relaxed them and gave them the munchies and the giggles. And it also set their skeptical minds in motion: If government authorities habitually lie about marijuana, what else do they lie about? If pot prohibition is based on blatant falsehoods, are other laws just as arbitrary, capricious, and groundless?

Once they tried marijuana, many Americans wondered if they could trust the government to tell the truth about anything. Not surprisingly, pot smokers in the early 1960s tended to harbor antiestablishment attitudes. It wasn't the chemical composition of cannabis that engendered a general skepticism toward authority—it was the chasm between lived experience and official antimarijuana mythology enshrined in federal legislation that mandated five years in prison for possessing a single stick of grass.

As more Americans discovered the gentle euphoria and the angst-assuaging effects of cannabis, grassroots user networks reached a critical mass and became visible as distinct countercommunities in major cities and college towns. The seeds of change planted by Ginsberg and Kerouac were sprouting across the country in dozens of small-scale bohemian enclaves, where students, artists, marijuana smokers, bongo bangers, folk singers, jazz buffs, leftist intellectuals, and other coffeehouse patrons discussed the burning issues of the day—civil rights, the death penalty, the recent Cuban revolution, and the threat of nuclear war.

Born and raised in Duluth, Minnesota, Robert Zimmerman took up the guitar as a teenager and started hanging out in Dinkytown, the Twin Cities' bohemian district. Situated near the University of Minnesota, it offered a congenial environment for young malcontents who were seeking their own generational identity and looking to cop some weed. This is where Zimmerman first came into contact with marijuana in 1959. Beat literature also made a big impression on him during this period. "It was Ginsberg and Kerouac who inspired me at first," he acknowledged. Soon he changed his name to Bob Dylan and moved to New York City to pursue his dream of becoming a folk singer.

Dylan was nineteen when he arrived in Greenwich Village, the cradle of the folk music revival. Unpolished and ambitious, he sang in a nasal twang that challenged conventional tastes while tapping into a rich vein of youthful alienation. Folk music was antiestablishment music that supported desegregation, labor unions, nuclear disarmament, and social justice. En route to becoming the foremost singer-songwriter of his era, Dylan initially rode the coattails of Joan Baez, the reigning queen of folk, whose talented sister, Mimi, was married to Dylan's close friend Richard Farina.* They were quite a foursome, according to David Hajdu, who reports that Richard and Bob shared a "fondness for marijuana," though Dylan seemed "far more interested in the literal effects of the drug than in its social cache."

A society that seemed so humdrum and predictable just a few years earlier was undergoing a series of convulsions. As the timidity of the 1950s mind-set began to abate, it dawned on an entire generation of Americans that they had the power, in the words of Thomas Paine, "to begin the world over again." Driven by moral outrage and the conviction that their country was more democratic in name than fact, scores of Americans from all walks of life took part in a civil rights movement that included dangerous voter-registration campaigns in the Deep South, where police savaged nonviolent protestors with billy clubs, attack dogs, and water cannon. Dylan went to Mississippi to support the "Freedom Summer" voting rights drive and his song "Blowin' in the Wind" became both a Top Ten hit (sung by Peter, Paul, and Mary) and an anthem for the civil rights movement. Dylan performed this song with Joan Baez for 200,000 people at the legendary rally in Washington, D.C., where Rev. Martin Luther King, Jr., delivered his stirring "I have a dream" speech on August 28, 1963.

Exactly one year later to the day, Bob Dylan ascended the elevator of the Delmonico Hotel on Park Avenue in Manhattan for a momentous first meeting with the Beatles, who were touring the United States. Beatlemania was then at its peak, and twenty police stood guard in the corridor as Dylan entered the Beatles' sixth-floor hotel suite.

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* Farina, a folk musician and an author, died in a motorcycle accident in 1966, shortly after his first novel was published. A cult classic among counterculture buffs, *Been Down So Long It Looks Like Up to Me*, describes the travails of Gnossos Pappadopoulos, the archetypical student outcast who rejects approved avenues of advancement as too narrow, too compromised, or simply too dull to abide, while indulging in a complete collegiate pharmacopeia—grass, hash, peyote, paregoric-soaked cigarettes, and whatever else he could find.

After an exchange of courtesies, Dylan suggested that they all smoke some grass. He was surprised to learn that the Beatles were marijuana virgins. Dylan had a bag of weed with him and he rolled a sloppy joint. Blinds were drawn and towels carefully placed before locked doors to hide the smell. Dylan sparked a reefer and a few minutes later everyone was laughing uproariously.

"We were kind of proud to have been introduced to pot by Dylan," Paul McCartney later remarked. "That was rather a coup."

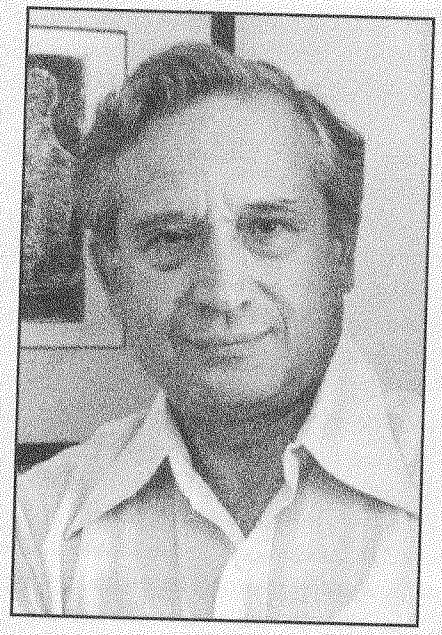
Cannabis was quite different from the purple hearts and other uppers that the Beatles had taken to keep pace with the rigors of the late-night club circuit. Marijuana eased them into a soft yet lively space, a cushioned reprieve from the bizarre fishbowl sensation—the hysterical fans, the constant media attention—that accompanied their vertiginous rise to rock stardom. From that day forward, the Beatles would consume cannabis on a regular basis. And whenever John Lennon felt like getting stoned, he would say, *"Let's 'ave a larf!"*

The Riddle of THC

On August 28, 1964, the day Dylan lit up and handed the Beatles their first joint in a New York City hotel room, Dr. Raphael Mechoulam was working intently in his laboratory at the Hebrew University in Jerusalem. The young Israeli chemist and his research partner, Yechiel Gaoni, would soon become the first scientists to fully isolate and synthesize delta-9-tetrahydrocannabinol, or THC, marijuana's principal psychoactive component.

Mechoulam's groundbreaking research was subsidized by the U.S. National Institutes of Health (NIH), which had suddenly become desirous of more objective information about the herb. As the use of marijuana soared among middle-class youth, officialdom started to get anxious, especially when the sons and daughters of prominent politicians were caught smoking it. Queried by members of Congress as to whether pot caused brain damage, the NIH scurried to gather basic scientific data. But hard science was hard to come by in large part due to the stubborn refusal of the Federal Bureau of Narcotics to sanction laboratory research. For a long time, the illegality of cannabis acted as a deterrent to research in the United States.

From a scientific perspective, the riddle of THC was not easy to unravel. The small number of researchers who studied cannabis over the years found the herb difficult to work with because many of its 421 distinct compounds are "lipophilic" (soluble in fat but not in water), which means they can't be separated and scrutinized without sophisticated equipment. Scientists would



Israeli scientist Raphael Mechoulam first synthesized THC, marijuana's principal psychoactive ingredient, in 1964. In the early 1990s, Mechoulam's team discovered endogenous cannabinoid compounds in the mammalian brain and body that protect neurons, stimulate adult stem-cell growth, and regulate the immune system, glucose metabolism, and other crucial physiological processes.
(Courtesy of The Hebrew University in Jerusalem)

eventually ascertain that at least a hundred of these lipophilic compounds—known as "cannabinoids"—are unique to the marijuana plant.* In addition to the cannabinoids, a term coined by Mechoulam, marijuana contains various alkaloids, flavonoids, and terpenoids (essential aromatic oils).

The isolation and synthesis of THC would prove to be a highly significant event in the history of psychopharmacology. Mechoulam, then thirty-four, an-

* Plant cannabinoids have twenty-one carbon atoms in ring structures, with hydrogen and oxygen molecules attached at different points.

nounced his discovery in a letter to the editor of the *Journal of the American Chemical Society* on July 20, 1965. Although he didn't realize it at the time, Mechoulam had lit a slow-burning fuse that would detonate a revolution in medical science.

Scientists noted that THC had two asymmetrical centers and existed in both left- and right-handed forms. (The molecular structure of THC has a "double" quality in keeping with the twin spirit of cannabis.) Mechoulam and his Hebrew University colleagues proceeded to isolate and elucidate the chemical structure of dozens of other cannabinoids, which composed a new class of compounds different from any other drugs. Mechoulam understood that marijuana had a therapeutic history dating back thousands of years, and he believed that the cannabinoids were "a medicinal treasure trove" waiting to be tapped. Much of his early research was devoted to exploring the healing potential of THC, which caused the psychoactive buzz sought by pot smokers. When smoked, THC is absorbed into the bloodstream via the lungs and nasal passages and quickly crosses the blood-brain barrier.

The variability of THC became evident to Mechoulam when he administered the compound to a group of people in a social setting. Everyone "had a different reaction," Mechoulam recalled after his first and only THC experience. "I think I enjoyed it. I was just sitting there and feeling above everything else. One person became a little anxious; another became a little aggressive." A member of the Knesset (the Israeli parliament) who ingested THC talked a blue streak for several hours.*

Mechoulam and his associates conducted clinical studies with THC at a hospital in Jerusalem, and found that it showed promise for treating a wide range of conditions, including neuropathic pain, Tourette's syndrome, hypertension, and chronic hiccups (which can wreak havoc on a person's health). Israeli physicians also gave THC to children undergoing cancer chemotherapy in order to alleviate nausea and prevent them from vomiting; it worked in every case.

During this period, the U.S. Army was also very interested in THC—but not for therapeutic purposes. "We weren't looking for medical benefits," re-

* In a 1970 article in *Science* magazine, Mechoulam speculated (incorrectly, it turned out) that the body metabolized THC into another chemical, which acted on a molecular level to cause the marijuana high. Later Mechoulam found a THC metabolite—a compound generated by the breakdown of THC—in mammalian urine. But this metabolite was not psychoactive. Nevertheless, Mechoulam's discovery laid the basis for today's urinalysis industry because the presence of this THC metabolite in urine meant that marijuana had been consumed. To his everlasting regret, Mechoulam neglected to patent his discovery.

Edgewood Arsenal, Maryland, where the U.S. Army Chemical Corps tested potent THC-like molecules on GI volunteers
(Courtesy of James Ketchum)

called Dr. James S. Ketchum, a retired colonel. "We were trying to subdue people." Ketchum was referring to his work at Edgewood Arsenal, headquarters of the Army Chemical Corps, in the 1960s, when American national security strategists were high on the possibility of developing a so-called humane weapon that could knock people out without necessarily killing them. Top military officers hyped the notion of "war without death," conjuring visions of aircraft swooping over enemy territory releasing clouds of "madness gas" that would disorient the bad guys and dissolve their will to resist, while specially equipped U.S. soldiers moved in and took over.

"Paradoxical as it may seem, one can use chemical weapons to spare lives, rather than extinguish them," contends Ketchum, who oversaw a secret research program at Edgewood (located twenty-five miles northeast of Baltimore), where an array of mind-bending drugs were tested on American soldiers, including an exceptionally potent synthetic marijuana derivative. Obtained from major pharmaceutical corporations and other sources, most of these drugs had no medical names, just "experimental agent" (EA) numbers designated by army officers.

The Chemical Corps's marijuana research began several years before

Raphael Mechoulam succeeded in isolating and synthesizing pure THC. In the late 1950s, the army tested "EA-1476"—a potent cannabis concentrate hitherto known as "Red Oil" in scientific circles—on U.S. soldiers at Edgewood Arsenal. When asked to perform routine numbers and spatial reasoning tests, the stoned GIs couldn't stop laughing. But Red Oil was not an ideal chemical-warfare candidate. For starters, it was a "crude" plant extract that contained many hard-to-separate components besides psychoactive THC. Army scientists surmised that pure THC would weigh much less than Red Oil and would therefore be better suited as a chemical weapon. They were intrigued by the possibility of amplifying the active ingredient of marijuana, tweaking the mother molecule, as it were, to enhance her psychogenic effects. So the Chemical Corps set its sights on developing a synthetic variant of THC that could clobber people without killing them.

Enter Harry Pars, a scientist working with Arthur D. Little, Inc., based in Cambridge, Massachusetts, one of several pharmaceutical companies that conducted chemical-warfare research for the U.S. Army. A frequent visitor to Edgewood Arsenal, Pars synthesized a new cannabinoid compound, dubbed "EA 2233," which was significantly stronger than Red Oil.

The U.S. Army Chemical Corps began clinical testing of EA 2233 on GI volunteers in 1961, the year Ketchum began his military career as a staff psychiatrist at Edgewood. "There was no doubt in my mind that working in this strange atmosphere was just the sort of thing that would satisfy my appetite for novelty," he later recounted. Ketchum rose swiftly in rank and became chief of clinical research at the army's hub for chemical-warfare studies. Although the Geneva Convention had banned the use of chemical weapons, the U.S. government never agreed to this provision, and Washington poured money into the search for a nonlethal incapacitant.

Colonel Ketchum found that EA 2233, when ingested at sufficient dosage levels, lasted up to thirty hours, far longer than the typical marijuana buzz. In a videotaped interview seven hours after he had been given EA 2233, a GI volunteer described feeling numb in his arms and unable to raise them, precluding any possibility that he could defend himself if attacked. "Everything seems comical . . . I just feel like laughing," he told his interlocutor, Dr. Ketchum.

Q: Does the time seem to pass slower or faster or any different than usual?
A: No different than usual. Just—just that I mostly lose track of it. I don't know if it's early or late . . .
Q: Suppose you have to get up and go to work now. How would you do?
A: I don't think I'd even care.

Q: Well, suppose the place were on fire?
A: It would seem funny.
Q: It would seem funny? Do you think you'd have the sense to get up and run out or do you think you'd just enjoy it?
A: I don't know. Fire doesn't seem to present any danger to me right now . . . Everything just seems funny in the army. Seems like everything somebody says, it sounds a little bit funny . . .
Q: Is it like when you're in a good mood and you can laugh at anything?
A: Right . . . It's like being out with a bunch of people and everybody's laughing. They're just—
Q: Having a ball?
A: Yeah. And everything just seems funny.
Q: Would you do this again? Take this test again?
A: Yeah. Yeah. It wouldn't bother me at all.

EA 2233 was actually a mixture of eight stereoisomers of THC. (An isomer is a rearrangement of the same atoms within a given molecule; a stereoisomer entails different spatial configurations of these atoms.) Eventually, Edgewood scientists would separate the eight stereoisomers and investigate the relative potency of each of them individually in an effort to separate the psychoactive wheat from the chaff and reduce the amount of material needed to get the desired effect for chemical warfare.

Only two of the stereoisomers proved to be of interest; the others didn't have much of a knockdown effect. When administered intravenously, low doses of these two synthetic cousins of tetrahydrocannabinol triggered a dramatic drop in blood pressure to the point where test subjects could barely move. Standing up without assistance was impossible. Cautious army doctors construed this as a warning sign—a sudden plunge in blood pressure could be dangerous—and human experiments with single THC stereoisomers were suspended.

Looking back on these studies, Colonel Ketchum wonders whether his colleagues made the right decision. "This hypotensive [blood pressure reducing] property, in an otherwise nonlethal compound, might be an ideal way to produce a temporary inability to fight, or do much else, without toxicological danger to life," Ketchum stated in a 2007 interview. Given the high safety margin of THC—no one has ever died from an overdose—and the likelihood that the stereoisomers would display a similar safety profile, Ketchum believes the army may have spurned a couple of worthy prospects that were capable of filling the knock-'em-out-but-don't-kill-'em niche in America's chemical-warfare armory.

As for the two exemplary stereoisomers weaned from EA 2233, Ketchum speculates: "They probably would have been safe in terms of life-sparing activity . . . But a person who received them would have to lie down. If he tried to stand up and get his weapon, he would feel faint and lightheaded and he'd keel over. Essentially he would be immobilized for any military purpose until the effects wore off."

The colonel's assessment: "A safe drug that knocks people down—what more could you ask for?"

With THC isomers on the back burner, the U.S. Army Chemical Corps focused on several other compounds that were thought to have significant potential as nonlethal incapacitants: LSD, PCP, Ritalin (now widely prescribed in the USA for hyperactive children), and a delirium-inducing ass-kicker known as "BZ." By the time the clinical testing program had run its course, 6,700 volunteers experienced some bizarre states of consciousness at Edgewood. Sequestered in padded rooms, soldiers under the influence of powerful mind-altering drugs rode imaginary horses and ate invisible chickens. Other GIs took showers in full uniform while smoking phantom cigars. Some of their antics were so over the top that Ketchum had to admonish the nurses and other medical personnel not to laugh at the volunteers even though it was unlikely that they would remember such incidents once the drugs wore off.

One morning, Ketchum arrived at his office in Edgewood and found "a large black steel barrel, resembling an oil drum, parked in the corner of the room," as he recounted. Overcome by curiosity, he opened the barrel and examined its contents. There were a dozen tightly sealed glass canisters that looked like cookie jars; the labels on the canisters indicated that each contained about three pounds of EA 1729, the army's code number for LSD. By the end of the week, the forty pounds of government acid—enough to blow several hundred million minds—vanished as mysteriously as it had appeared. Ketchum never found out who put the LSD in his office or what became of it.

But this much he knew: Several officers at Edgewood were dipping into the army's stash for their own personal use. "Some of my colleagues took LSD more often than was necessary to appreciate its clinical effects," Ketchum admitted. "They must have liked it."

During the mid-1960s, when young Americans in large numbers were first turning on to reefer, the colonel occasionally got together with a few friends and smoked pot while on leave from Edgewood. "I enjoyed it," Ketchum conceded. "It was very sensuous. But I didn't use it very often. I didn't have any of my own."

After sixteen years in the service, the colonel retired and moved to California. When residents of the Golden State passed the 1996 ballot measure that legalized medical marijuana, Ketchum got a recommendation from his family physician to use the herb for insomnia. "I have personally found it helpful, especially for sleep," he divulged. "I've had problems with sleep for a long time. When I started smoking pot more often, my sleep improved. As a result, I no longer needed to take Valium regularly."

Colonel Ketchum, the man who tried to harness THC as a weapon of war, found solace in the healing qualities of cannabis. As a private citizen, he supported the efforts of drug-policy critics working inside and outside the system to end pot prohibition. "It's the refusal to look at the evidence that keeps cannabis illegal," the colonel asserted. "It's a much safer drug than many legal substances. They misrepresented marijuana as an evil weed."

Grass and Acid

Ken Kesey knew how to throw a party.

It all started when this burly, blue-eyed, ex–high school wrestling champ with a gift for gab heard about an experiment being conducted at the Veterans Hospital in Menlo Park, California. Volunteers were paid $75 to serve as guinea pigs in a U.S. government-sponsored study of hallucinogenic drugs. Kesey, then a graduate student in Stanford University's creative writing program, had smoked marijuana, but he had never tried LSD, a drug that was not yet generally available for public consumption. In the spring of 1960, Kesey took "acid" for the first time courtesy of Uncle Sam. It changed his life. And he changed America.

A few weeks after his initial shell-shattering trip to "Edge City"—Kesey's name for the outer limits of consciousness he experienced on LSD—he finagled a job at the Veterans Hospital. The young writer proceeded to help himself to a generous array of psychedelic compounds, which he shared with his adventurous friends in Perry Lane, the collegiate bohemia of Palo Alto. While working as a night attendant on the hospital's psychiatric ward, Kesey got the idea for his first novel, *One Flew over the Cuckoo's Nest*, about a group of mental patients who battled the repressive authority of the Big Nurse. The asylum inmates were depicted as less crazy than their keepers, an apt metaphor for America circa '62, when *Cuckoo's Nest* was published to great critical acclaim. That was the year of the Cuban missile crisis: The United States and the Soviet Union went eyeball to eyeball and the world held its breath. The turn of a key could have triggered nuclear war and the mass extinction of the human species. The whole thing seemed suicidal, completely insane, yet it was