

## *In The Beginning There Was Madness . . .*

### THE TRUTH SEEKERS

In the spring of 1942 General William "Wild Bill" Donovan, chief of the Office of Strategic Services (OSS), the CIA's wartime predecessor, assembled a half-dozen prestigious American scientists and asked them to undertake a top-secret research program. Their mission, Donovan explained, was to develop a speech-inducing drug for use in intelligence interrogations. He insisted that the need for such a weapon was so acute as to warrant any and every attempt to find it.

The use of drugs by secret agents had long been a part of cloak-and-dagger folklore, but this would be the first concerted attempt on the part of an American espionage organization to modify human behavior through chemical means. "We were not afraid to try things that had never been done before," asserted Donovan, who was known for his freewheeling and unconventional approach to the spy trade. The OSS chief pressed his associates to come up with a substance that could break down the psychological defenses of enemy spies and POWs, thereby causing an uninhibited disclosure of classified information. Such a drug would also be useful for screening OSS personnel in order to identify German sympathizers, double agents, and potential misfits.

Dr. Windfred Overhulser, superintendent of Saint Elizabeth's Hospital in Washington, DC, was appointed chairman of the research committee. Other members included Dr. Edward Strecker, then president of the American Psychiatric Association, and Harry J. Anslinger, head of the Federal Bureau of Narcotics. The committee surveyed and rejected numerous drugs, including alcohol, barbiturates, and caffeine. Peyote and scopolamine were also tested, but the visions

produced by these substances interfered with the interrogation process. Eventually marijuana was chosen as the most likely candidate for a speech-inducing agent.

OSS scientists created a highly potent extract of cannabis, and through a process known as esterification a clear and viscous liquid was obtained. The final product had no color, odor, or taste. It would be nearly impossible to detect when administered surreptitiously, which is exactly what the spies intended to do. "There is no reason to believe that any other nation or group is familiar with the preparation of this particular drug," stated a once classified OSS document. Henceforth the OSS referred to the marijuana extract as "TD"—a rather transparent cover for "Truth Drug."

Various ways of administering TD were tried on witting and unwitting subjects. OSS operatives found that the medicated goo could "be injected into any type of food, such as mashed potatoes, butter, salad dressing, or in such things as candy." Another scheme relied on using facial tissues impregnated with the drug. But these methods had their drawbacks. What if someone had a particularly ravenous appetite? Too much TD could knock a subject out and render him useless for interrogation. The OSS eventually determined that the best approach involved the use of a hypodermic syringe to inject a diluted TD solution into a cigarette or cigar. After smoking such an item, the subject would get suitably stoned, at which point a skillful interrogator would move in and try to get him to spill the beans.

The effects of TD were described in an OSS report: "TD appears to relax all inhibitions and to deaden the areas of the brain which govern an individual's discretion and caution. It accentuates the senses and makes manifest any strong characteristics of the individual. Sexual inhibitions are lowered, and the sense of humor is accentuated to the point where any statement or situation can become extremely funny to the subject. On the other hand, a person's unpleasant characteristics may also be heightened. It may be stated that, generally speaking, the reaction will be one of great loquacity and hilarity."<sup>\*</sup>

After testing TD on themselves, their associates, and US military

<sup>\*</sup>This was a rather mild and playful assessment of the effects of marijuana compared to the public rantings of Harry Anslinger, the narcotics chief who orchestrated an unrelenting media campaign against "the killer weed."

personnel, OSS agents utilized the drug operationally, although on a limited basis. The results were mixed. In certain instances TD subjects felt a driving necessity "to discuss psychologically charged topics. Whatever the individual is trying to withhold will be forced to the top of his subconscious mind." But there were also those who experienced "toxic reactions"—better known in latter-day lingo as "bummers." One unwitting doer became irritable and threatening and complained of feeling like he was "two different people." The peculiar nature of his symptoms precluded any attempt to question him.

That was how it went, from one extreme to the other. At times TD seemed to stimulate "a rush of talk"; on other occasions people got paranoid and didn't say a word. The lack of consistency proved to be a major stumbling block, and "Donovan's dreamers," as his enthusiastic OSS staffers have been called, reluctantly weaned themselves from their reefer madness. A handwritten comment in the margins of an OSS document summed up their stoned escapades: "The drug defies all but the most expert and searching analysis, and for all practical purposes can be considered beyond analysis."

After the war, the CIA and the military picked up where the OSS had left off in the secret search for a truth serum. The navy took the lead when it initiated Project CHATTER in 1947, the same year the CIA was formed. Described as an "offensive" program, CHATTER was supposed to devise means of obtaining information from people independent of their volition but without physical duress. Toward this end Dr. Charles Savage conducted experiments with mescaline (a semi-synthetic extract of the peyote cactus that produces hallucinations similar to those caused by LSD) at the Naval Medical Research Institute in Bethesda, Maryland. But these studies, which involved animal as well as human subjects, did not yield an effective truth serum, and CHATTER was terminated in 1953.

The navy became interested in mescaline as an interrogation agent when American investigators learned of mind control experiments carried out by Nazi doctors at the Dachau concentration camp during World War II. After administering the hallucinogen to thirty prisoners, the Nazis concluded that it was "impossible to impose one's will on another person as in hypnosis even when the strongest dose of mescaline had been given." But the drug still afforded certain advantages to SS interrogators, who were consistently able to draw "even the most intimate secrets from the [subject] when questions

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were cleverly put." Not surprisingly, "sentiments of hatred and revenge were exposed in every case."

The mescaline experiments at Dachau were described in a lengthy report by the US Naval Technical Mission, which swept across Europe in search of every scrap of industrial material and scientific data that could be garnered from the fallen Reich. This mission set the stage for the wholesale importation of more than six hundred top Nazi scientists under the auspices of Project Paperclip, which the CIA supervised during the early years of the Cold War. Among those who emigrated to the US in such a fashion was Dr. Hubertus Strughold, the German scientist whose chief subordinates [Dr. Sigmund Ruff and Dr. Sigmund Rascher] were directly involved in "aviation medicine" experiments at Dachau, which included the mescaline studies.\* Despite recurring allegations that he sanctioned medical atrocities during the war, Strughold settled in Texas and became an important figure in America's space program. After Werner von Braun, he was the top Nazi scientist employed by the American government, and he was subsequently hailed by NASA as the "father of space medicine."

The CIA, meanwhile, had launched an intensive research effort geared toward developing "special" interrogation techniques. Two methods showed promise in the late 1940s. The first involved nar-

\*Strughold's subordinates injected Dachau inmates with gasoline, crushed them to death in high-altitude pressure chambers, shot them so that potential blood coagulants could be tested on their wounds, forced them to stand naked in subfreezing temperatures or immersed them in tubs of ice water to see how long it would take before they died. As Charles R. Allen, Jr., author of *From Hitler to Uncle Sam: How American Intelligence Used Nazi War Criminals*, stated in an article on Strughold, "There was a clear pattern to the various experiments with poison, gas, deliberate infestation of victims with malaria, typhus and other virulencies causing instant or prolonged anguishing to death. Whether the tests concerned high-altitude, freezing or the potability of sea water; or the shooting of 'volunteers' with gas bullets—the patent purpose of the entire body of tests conducted at Dachau was to enhance the effectiveness of Hitler's criminal warfare against humanity."

After the war an Allied tribunal convened at Nuremberg sentenced a number of Nazi doctors to death for their role in medical atrocities at Dachau and other concentration camps. The judges at Nuremberg subsequently put forward a code of ethics for scientific research, which stipulated that full voluntary consent must be obtained from all research subjects and experiments should yield positive results for the benefit of society that could not be obtained in any other way.

Although Dr. Strughold escaped prosecution, his name later appeared on a master list of "Reported Nazi War Criminals Residing in the United States" compiled by the Immigration and Naturalization Service. He currently lives in San Antonio, Texas.

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cohypnosis, in which a CIA psychiatrist attempted to induce a trance state after administering a mild sedative. A second technique involved a combination of two different drugs with contradictory effects. A heavy dose of barbiturates was given to knock the subject out, and then he received an injection of a stimulant, usually some type of amphetamine. As he started to come out of a somnambulant state, he would reach a certain ineffable point prior to becoming fully conscious. Described in CIA documents as "the twilight zone," this groggy condition was considered optimal for interrogation.

CIA doctors attempted to extend the stuporous limbo as long as possible. In order to maintain the delicate balance between consciousness and unconsciousness, an intravenous hookup was inserted in both the subject's arms. One set of works contained a downer, the other an upper (the classic "goofball" effect); with a mere flick of the finger an interrogator could regulate the flow of chemicals. The idea was to produce a "push"—a sudden outpouring of thoughts, emotions, confidences, and whatnot. Along this line various combinations were tested: Seconal and Dexedrine; Pentothal and Desoxyn; and depending on the whim of the spy in charge, some marijuana (the old OSS stand-by, which the CIA referred to as "sugar") might be thrown in for good measure.

The goofball approach was not a precision science. There were no strictly prescribed rules or operating procedures regarding what drugs should be employed in a given situation. The CIA interrogators were left to their own devices, and a certain degree of recklessness was perhaps inevitable. In one case, a group of CIA experts hastily drafted a memo after reviewing a report prepared by one of the Agency's special interrogation teams. The medical consultants pointed out that "the amounts of scopolamine administered were extremely heavy." They also noted that the best results were obtained when two or at most three different chemicals were used in a session. In this case, however, heavy dosages of scopolamine were administered along with thiamine, sodium luminal, atropine sulfate, sodium pentothal and caffeine sulfate. One of the CIA's professional consultants in "H" techniques also questioned why hypnosis was attempted "after a long and continuous use of chemicals, after the subject had vomited, and after apparently a maximum tolerance point had been reached with the chemicals." Everyone who read the interrogation report agreed that hypnosis was useless, if not impossible, under

such conditions. Nevertheless, the memo concluded by reaffirming that "no criticism is intended whatsoever" and that "the choice of operating weapons" must be left to the agents in the field.

Despite the potential hazards and tenuousness of the procedure as a whole, special interrogations were strongly endorsed by Agency officials. A CIA document dated November 26, 1951, announced, "We're now convinced that we can maintain a subject in a controlled state for a much longer period of time than we heretofore had believed possible. Furthermore, we feel that by use of certain chemicals or combinations, we can, in a very high percentage of cases, produce relevant information." Although these techniques were still considered experimental, the prevailing opinion among members of the special interrogation teams was that there had been enough experiments "to justify giving the green light to operational use of the techniques." "There will be many a failure," a CIA scientist acknowledged, but he was quick to stress that "every success with this method will be pure gravy."\*

\*Obtaining information was only one aspect of the interrogation process. Even when CIA officers were able to loosen a subject's tongue, other problems remained, such as how to insure that he would not remember the events that transpired during his stint in the twilight zone. "If by some means we could create a perfect and thoroughly controlled amnesia," a CIA agent declared, "the matter would be simplified, but amnesia is not certain and cannot be guaranteed."

Certain drugs were known to produce amnesia for a matter of hours or days, but this was not sufficient. The CIA also had access to chemicals capable of causing permanent brain damage, but long-term amnesia drugs that would be completely reversible over a twelve-to-eighteen-month period were not available.

This was quite an inconvenience as far as the national security experts were concerned. The question of what to do with subjects of special interrogation sessions—the "disposal problem"—provoked a heated debate inside the Company. The immediate objective was to find a way of holding them "in maximum custody until either operations have progressed to the point where their knowledge is no longer highly sensitive, or the knowledge they possess in general will be of no use to the enemy."

One possibility suggested in CIA documents was to render a person incoherent through psychological and/or pharmacological attack and then have him placed in a mental institution. An unspecified number of subjects were committed involuntarily to insane asylums, including some who were described in CIA memoranda as mentally sound. (This practice, which began in the early 1950s and continued at least until the mid-1960s, invites obvious comparisons to the incarceration of Russian dissidents in psychiatric hospitals because of their political views.) Another option involved "termination with extreme prejudice" (CIA lingo for assassination), but this was hardly an ideal solution in all situations.

In one CIA document the question of disposal was discussed under the heading "LOBOTOMY and Related Operations." A number of individuals who were fully

In an effort to expand its research program the CIA contacted academics and other outside experts who specialized in areas of mutual interest. Liaison was established with the research sections of police departments and criminology laboratories; medical practitioners, professional hypnotists, and psychiatrists were brought on as paid consultants, and various branches of the military provided assistance. Oftentimes these arrangements involved a cover to conceal the CIA's interest in behavior modification. With the bureaucratic apparatus already in place, the CIA's mind control efforts were integrated into a single project under the code name BLUEBIRD. Due to the extreme sensitivity of the project, the usual channels of authorization were bypassed, instead of going through the Projects Review Committee, the proposal for BLUEBIRD was submitted di-

cognizant of the disposal problem suggested that lobotomy "might be the answer or at least a partial solution." They argued that "lobotomy would create a person 'who no longer cared,' who had lost all initiative and drive, whose allegiance to ideal or motivating factors no longer existed, and who would probably have, if not complete amnesia, at least a fuzzy or spotty memory for recent and past events." They also pointed out "that certain lobotomy types of operations were simple, quickly performed and not too dangerous."

Along this line a group of CIA scientists entertained the possibility of using an "icepick" lobotomy to render an individual harmless "from a security point of view." A memo dated February 7, 1952, notes that on numerous occasions after using electroshock to produce anesthesia, an unidentified surgeon in the Washington, DC, area performed an operation that involved destroying brain tissue by piercing the skull just above the eye with a fine surgical icepick. This type of psychosurgery had certain advantages, in that it resulted in "nervous confusional and amnesia effects" without leaving a "tell-tale scar." The CIA also experimented with brain surgery via UHF sound waves and at one point during the early 1950s attempted to create a microwave "amnesia beam" that would destroy memory neurons.

Not all CIA officials, however, favored using lobotomy as a disposal technique. Potential drawbacks were cited: surgical risk was great, brain damage could be extensive, and such an operation, if faulty, could produce a "vegetable." Moreover, if the enemy discovered that the CIA was mutilating people's brains for the sake of national security, this information could be exploited as a propaganda weapon.

Other CIA officials opposed lobotomy because it was blatantly inhumane and violated "all concepts of 'fair-play' and the American way of life and [thus] it could never be officially [emphasis added] sanctioned or supported." A CIA document dated March 3, 1952, states that while "the USSR and its satellites are capable of any conceivable atrocity against human beings to attain what they think are their ends, we should not—with our high regard for human life—use these techniques unless by using them we save the lives of our own people and the situation is highly critical to the nation's safety."

In the early 1950s, at least \$100,000 was designated for a proposed research project geared toward developing "neuro-surgical techniques for Agency interest." It is not known whether this research was ever carried out.

rectly to CIA director Roscoe Hillenkoetter, who authorized the use of unvouchered funds to finance the hush-hush undertaking. With this seal of approval the CIA's first major drug testing program was officially hatched. BLUEBIRD was to remain a carefully guarded secret, for if word of the program leaked out it would have been a great embarrassment and a detriment to American intelligence. As one CIA document put it, BLUEBIRD material was "not fit for public consumption."

From the outset the CIA's mind control program had an explicit domestic angle. A memo dated July 13, 1951, described the Agency's mind-bending efforts as "broad and comprehensive, involving both domestic and overseas activities, and taking into consideration the programs and objectives of other departments, principally the military services." BLUEBIRD activities were designed to create an "exploitable alteration of personality" in selected individuals; specific targets included "potential agents, defectors, refugees, POWs," and a vague category of "others." A number of units within the CIA participated in this endeavor, including the Inspection and Security Staff (the forerunner of the Office of Security), which assumed overall responsibility for running the program and dispatching the special interrogation teams. Colonel Sheffield Edwards, the chairman of the BLUEBIRD steering committee, consistently pushed for a more reliable speech-inducing substance. By the time BLUEBIRD evolved into Operation ARTICHOKE (the formal change in code names occurred in August 1951), Security officials were still searching for the magic technique—the *deus ex machina*—that would guarantee surefire results.

The whole concept of a truth drug was a bit farfetched to begin with. It presupposed that there was a way to chemically bypass the mind's censor and turn the psyche inside out, unleashing a profusion of buried secrets, and that surely some approximation of "truth" would emerge amidst all the personal debris. In this respect the CIA's quest resembled a skewed version of a familiar mythological theme from which such images as the Philosopher's Stone and the Fountain of Youth derive—that through touching or ingesting something one can acquire wisdom, immortality, or eternal peace. It is more than a bit ironic that the biblical inscription on the marble wall of the main lobby at CIA headquarters in Langley, Virginia, reads, "And ye shall know the Truth and the Truth shall set you free."

The freewheeling atmosphere that prevailed during the CIA's early years encouraged an "anything goes" attitude among researchers associated with the mind control program. This was before the Agency's bureaucratic arteries began to harden, and those who participated in Operation ARTICHOKE were intent on leaving no stone unturned in an effort to deliver the ultimate truth drug. A number of agents were sent on fact-finding missions to all corners of the globe to procure samples of rare herbs and botanicals. The results of one such trip were recorded in a heavily deleted document entitled "Exploration of Potential Plant Resources in the Caribbean Region." Among the numerous items mentioned in this report, a few were particularly intriguing. A plant called a "stupid bush," characterized by the CIA as a psychogenic agent and a pernicious weed, was said to proliferate in Puerto Rico and Saint Thomas. Its effects were shrouded in mystery. An "information bush" was also discovered. This shrub stumped CIA experts, who were at a loss to pin down its properties. The "information bush" was listed as a psychogenic agent followed by a lingering question mark. What type of information—prophetic or mundane—might be evoked by this unusual herb was unclear. Nor was it known whether the "information bush" could be used as an antidote to the "stupid bush" or vice versa.

The CIA studied a veritable pharmacopoeia of drugs with the hope of achieving a breakthrough. At one point during the early 1950s Uncle Sam's secret agents viewed cocaine as a potential truth serum. "Cocaine's general effects have been somewhat neglected," noted an astute researcher. Whereupon tests were conducted that enabled the CIA to determine that the precious powder "will produce elation, talkativeness, etc." when administered by injection. "Larger doses," according to a previously classified document, "may cause fearfulness and alarming hallucinations." The document goes on to report that cocaine "counteracts... the catatonia of catatonic schizophrenics" and concludes with the recommendation that the drug be studied further.

A number of cocaine derivatives were also investigated from an interrogation standpoint. Procaine, a synthetic analogue, was tested on mental patients and the results were intriguing. When injected into the frontal lobes of the brain through trephine holes in the skull, the drug "produced free and spontaneous speech within two days in mute schizophrenics." This procedure was rejected as "too

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surgical for our use." Nevertheless, according to a CIA pharmacologist, "it is possible that such a drug could be gotten into the general circulation of subject without surgery, hypodermic or feeding." He suggested a method known as iontophoresis, which involves using an electric current to transfer the ions of a chosen medicament into the tissues of the body.

The CIA's infatuation with cocaine was short-lived. It may have titillated the nostrils of more than a few spies and produced some heady speculation, but after the initial inspiration it was back to square one. Perhaps their expectations were too high for any drug to accommodate. Or maybe a new approach to the problem was required.

The search for an effective interrogation technique eventually led to heroin. Not the heroin that ex-Nazi pilots under CIA contract smuggled out of the Golden Triangle in Southeast Asia on CIA proprietary airlines during the late 1940s and early 1950s; nor the heroin that was pumped into America's black and brown ghettos after passing through contraband networks controlled by mobsters who moonlighted as CIA hitmen. The Agency's involvement in worldwide heroin traffic, which has been well documented in *The Politics of Heroin in Southeast Asia* by Alfred McCoy, went far beyond the scope of Operation ARTICHOKE, which was primarily concerned with eliciting information from recalcitrant subjects. However, ARTICHOKE scientists did see possible advantages in heroin as a mind control drug. According to a CIA document dated April 26, 1952, heroin was "frequently used by police and intelligence officers on a routine basis [emphasis added]." The cold turkey theory of interrogation: CIA operatives determined that heroin and other habit-forming substances "can be useful in reverse because of the stresses produced when they are withdrawn from those who are addicted to their use."

#### Enter LSD

It was with the hope of finding the long-sought miracle drug that CIA investigators first began to dabble with LSD-25 in the early 1950s. At the time very little was known about the hallucinogen, even in scientific circles. Dr. Werner Stoll, the son of Sandoz president Arthur Stoll and a colleague of Albert Hofmann's, was the first person to investigate the psychological properties of LSD. The re-

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sults of his study were presented in the *Swiss Archives of Neurology* in 1947. Stoll reported that LSD produced disturbances in perception, hallucinations, and acceleration in thinking; moreover, the drug was found to blunt the usual suspiciousness of schizophrenic patients. No unfavorable aftereffects were described. Two years later in the same journal Stoll contributed a second report entitled "A New Hallucinatory Agent, Active in Very Small Amounts."

The fact that LSD caused hallucinations should not have been a total surprise to the scientific community. Sandoz first became interested in ergot, the natural source of lysergic acid, because of numerous stories passed down through the ages. The rye fungus had a mysterious and contradictory reputation. In China and parts of the Mideast it was thought to possess medicinal qualities, and certain scholars believe that it may have been used in sacred rites in ancient Greece. In other parts of Europe, however, the same fungus was associated with the horrible malady known as St. Anthony's Fire, which struck periodically like the plague. Medieval chronicles tell of villages and towns where nearly everyone went mad for a few days after ergot-diseased rye was unknowingly milled into flour and baked as bread. Men were afflicted with gangrenous limbs that looked like blackened stumps, and pregnant women miscarried. Even in modern times there have been reports of ergot-related epidemics.\*

The CIA inherited this ambiguous legacy when it embraced LSD as a mind control drug. An ARTICHOKE document dated October 21, 1951, indicates that acid was tested initially as part of a pilot study of the effects of various chemicals "on the conscious suppression of experimental or non-threat secrets." In addition to lysergic acid this particular survey covered a wide range of substances, including morphine, ether, Benzedrine, ethyl alcohol, and mescaline. "There is no question," noted the author of this report, "that drugs are already on hand (and new ones are being produced) that can destroy integrity and make indiscreet the most dependable individual." The report concluded by recommending that LSD be critically

\*In 1951 hundreds of respectable citizens in Pont-Saint-Esprit, a small French village, went completely berserk one evening. Some of the town's leading citizens jumped from windows into the Rhone. Others ran through the streets screaming about being chased by lions, tigers, and "bandits with donkey ears." Many died, and those who survived suffered strange aftereffects for weeks. In his book *The Day of St. Anthony's Fire*, John C. Fuller attributes this bizarre outbreak to rye flour contaminated with ergot.

tested "under threat conditions beyond the scope of civilian experimentation." POWs, federal prisoners, and Security officers were mentioned as possible candidates for these field experiments.

In another study designed to ascertain optimal dosage levels for interrogation sessions, a CIA psychiatrist administered LSD to "at least twelve human subjects of *not too high mentality*." At the outset the subjects were "told only that a new drug was being tested and promised that nothing serious or dangerous would happen to them.... During the intoxication they realized something was happening, but were never told exactly what." A dosage range of 100 to 150 micrograms was finally selected, and the Agency proceeded to test the drug in mock interrogation trials.

Initial reports seemed promising. In one instance LSD was given to an officer who had been instructed not to reveal "a significant military secret." When questioned, however, "he gave all the details of the secret... and after the effects of the LSD had worn off, the officer had no knowledge of revealing the information (complete amnesia)." Favorable reports kept coming in, and when this phase of experimentation was completed, the CIA's Office of Scientific Intelligence (OSI) prepared a lengthy memorandum entitled "Potential New Agent for Unconventional Warfare." LSD was said to be useful "for eliciting true and accurate statements from subjects under its influence during interrogation." Moreover, the data on hand suggested that LSD might help in reviving memories of past experiences.

It almost seemed too good to be true—a drug that unearthed secrets buried deep in the unconscious mind but also caused amnesia during the effective period. The implications were downright astounding. Soon the entire CIA hierarchy was head over heels as news of what appeared to be a major breakthrough sent shock waves rippling through headquarters. (C. P. Snow once said, "The euphoria of secrecy goes to the head.") For years they had searched, and now they were on the verge of finding the Holy Grail of the cloak-and-dagger trade. As one CIA officer recalled, "We had thought at first that this was the secret that was going to unlock the universe."

But the sense of elation did not last long. As the secret research progressed, the CIA ran into problems. Eventually they came to recognize that LSD was not really a truth serum in the classical sense. Accurate information could not always be obtained from peo-

ple under the influence of LSD because it induced a "marked anxiety and loss of reality contact." Those who received unwitting doses experienced an intense distortion of time, place, and body image, frequently culminating in full-blown paranoid reactions. The bizarre hallucinations caused by the drug often proved more of a hindrance than an aid to the interrogation process. There was always the risk, for example, that an enemy spy who started to trip out would realize he'd been drugged. This could make him overly suspicious and taciturn to the point of clamping up entirely.

There were other pitfalls that made the situation even more precarious from an interrogation standpoint. While anxiety was the predominant characteristic displayed during LSD sessions, some people experienced delusions of grandeur and omnipotence. An entire operation might backfire if someone had an ecstatic or transcendental experience and became convinced that he could defy his interrogators indefinitely. And then there was the question of amnesia, which was not as cut-and-dried as first supposed. Everyone agreed that a person would probably have a difficult time recalling exactly what happened while he was high on LSD, but that didn't mean his mind would be completely blank. While the drug might distort memory to some degree, it did not destroy it.

When CIA scientists tested a drug for speech-inducing purposes and found that it didn't work, they usually put it aside and tried something else. But such was not the case with LSD. Although early reports proved overoptimistic, the Agency was not about to discard such a powerful and unusual substance simply because it did not live up to its original expectations. They had to shift gears. A reassessment of the strategic implications of LSD was necessary. If, strictly speaking, LSD was not a reliable truth drug, then how else could it be used?

CIA researchers were intrigued by this new chemical, but they didn't quite know what to make of it. LSD was significantly different from anything else they knew about. "The most fascinating thing about it," a CIA psychologist recalled, "was that such minute quantities had such a terrific effect." Mere micrograms could create "serious mental confusion... and render the mind temporarily susceptible to suggestion." Moreover, the drug was colorless, odorless, and tasteless, and therefore easily concealed in food and beverage. But it was hard to predict the response to LSD. On certain

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occasions acid seemed to cause an uninhibited disclosure of information, but oftentimes the overwhelming anxiety experienced by the subject obstructed the interrogation process. And there were unexplainable mood swings—from total panic to boundless bliss-out. How could one drug produce such extreme and contradictory reactions? It didn't make sense.

As research continued, the situation became even more perplexing. At one point a group of Security officers did an about-face and suggested that acid might best be employed as an anti-interrogation substance: "Since information obtained from a person in a psychotic state would be unrealistic, bizarre, and extremely difficult to assess, the *self-administration* of LSD-25, which is effective in minute doses, might in special circumstances offer an operative temporary protection against interrogation [emphasis added]."

This proposal was somewhat akin to a suicide pill scenario. Secret agents would be equipped with micro-pellets of LSD to take on dangerous assignments. If they fell into enemy hands and were about to be interrogated, they could pop a tab of acid as a preventive measure and babble gibberish. Obviously this idea was impractical, but it showed just how confused the CIA's top scientists were about LSD. First they thought it was a truth serum, then a lie serum, and for a while they didn't know what to think.

To make matters worse, there was a great deal of concern within the Agency that the Soviets and the Red Chinese might also have designs on LSD as an espionage weapon. A survey conducted by the Office of Scientific Intelligence noted that ergot was a commercial product in numerous Eastern Bloc countries. The enigmatic fungus also flourished in the Soviet Union, but Russian ergot had not yet appeared in foreign markets. Could this mean the Soviets were hoarding their supplies? Since information on the chemical structure of LSD was available in scientific journals as early as 1947, the Russians might have been stockpiling raw ergot in order to convert it into a mind control weapon. "Although no Soviet data are available on LSD-25," the OSI study concluded, "it must be assumed that the scientists of the USSR are thoroughly cognizant of the strategic importance of this powerful new drug and are capable of producing it at any time."

Were the Russians really into acid? "I'm sure they were," asserted John Gittlinger, one of the CIA's leading psychologists during the

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Cold War, "but if you ask me to prove it, I've never seen any direct proof of it."\* While hard evidence of a Soviet LSD connection was lacking, the CIA wasn't about to take any chances. What would happen, for example, if an American spy was caught and dosed by the Commies? The CIA realized that an adversary intelligence service could employ LSD "to produce anxiety or terror in medically unsophisticated subjects unable to distinguish drug-induced psychosis from actual insanity." The only way to be sure that an operative would not freak out under such circumstances would be to give him a taste of LSD (a mind control vaccine?) before he was sent on a sensitive overseas mission. Such a person would know that the effects of the drug were transitory and would therefore be in a better position to handle the experience. CIA documents actually refer to agents who were familiar with LSD as "enlightened operatives."

Along this line, Security officials proposed that LSD be administered to CIA trainee volunteers. Such a procedure would clearly demonstrate to select individuals the effects of hallucinogenic substances upon themselves and their associates. Furthermore, it would provide an opportunity to screen Agency personnel for "anxiety proneness"; those who couldn't pass the acid test would be excluded from certain critical assignments. This suggestion was well received by the ARTICHOKE steering committee, although the representative from the CIA's Medical Office felt that the test should not be "confined merely to male volunteer trainee personnel, but that it should be broadened to include all components of the Agency." According to a CIA document dated November 19, 1953, the Project Committee "verbally concurred in this recommendation."

During the next few years numerous CIA agents tried LSD. Some used the drug on repeated occasions. How did their firsthand experience with acid affect their personalities? How did it affect their attitude toward their work—particularly those who were directly

\*Internal CIA memoranda dispute the oft-repeated allegation that the Soviet Union and her satellites, including Red China, were engaged in unorthodox methods of altering human behavior. According to a CIA document dated January 14, 1953, "Apparently their major emphasis is on the development of specially-trained teams for obtaining information *without* the use of narcotics, hypnosis, or special mechanical devices [emphasis added]." A memo issued the next day by the Ad Hoc Medical Study Group admitted that "the present state of knowledge indicates little, if any, threat to National Security through 'special interrogation' techniques or agents."



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involved in mind control research? What impact did it have on the program as a whole?\*

At the outset of the CIA's behavior control endeavors the main emphasis was on speech-inducing drugs. But when acid entered the scene, the entire program assumed a more aggressive posture. The CIA's turned-on strategists came to believe that mind control techniques could be applied to a wide range of operations above and beyond the strict category of "special interrogation." It was almost as if LSD blew the Agency's collective mind-set—or was it mind-rut? With acid acting as a catalyst, the whole idea of what could be done with a drug, or drugs in general, was suddenly transformed.

\*At the very least, one suspects that a firsthand encounter with LSD would have made the clandestine mentality more receptive to the possibility of ESP, subliminal perception, and other phenomena associated with altered states. The CIA's interest in parapsychology dates back to the late 1940s. A handwritten memo of the period suggests that "hypnotists and telepathists" be contacted as professional consultants on an exploratory basis, but this proposal was initially rejected. It was not until 1952, after the CIA got heavily involved with LSD, that the Agency began funding ESP research.

While parapsychology has long been ridiculed by the scientific establishment, the CIA seriously entertained the notion that such phenomena might be highly significant for the spy trade. The Agency hypothesized that if a number of people in the US were found to have a high ESP capacity, their talent could be assigned to specific intelligence problems. In 1952 the CIA initiated an extensive program involving "the search for and development of exceptionally gifted individuals who can approximate perfect success in ESP performance." The Office of Security, which ran the ARTI-CHOKE project, was urged to follow "all leads on individuals reported to have true clairvoyant powers" so as to be able to subject their claims to "rigorous scientific investigation."

Along this line the CIA began infiltrating séances and occult gatherings. A memo dated April 9, 1953, refers to a domestic—and therefore illegal—operation that required the "planting of a very specialized observer" at a séance in order to obtain "a broad surveillance of all individuals attending the meetings."

The CIA also sought to develop techniques whereby the ESP powers of a group of psychics could be used "to produce factual information that could not be obtained in any other way." If it were possible "to identify the thought of another person several hundred miles away," a CIA scientist explained, "the adaptation to the practical requirements for obtaining secret information should not give serious difficulty." Moreover, "everything that adds anything to our understanding of what is taking place in ESP is likely to give us advantage in the problem of use and control."

In a rather bizarre twist, during the late 1960s the CIA experimented with mediums in an effort to contact (and debrief!) dead agents. These attempts, according to Victor Marchetti, a former high-ranking CIA official, were part of a larger effort to harness psychic powers for various intelligence-related missions that included utilizing clairvoyants to divine the intentions of the Kremlin leadership. Secret ESP research is still being conducted, although CIA spokesmen refuse to comment on the nature of these experiments.

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Soon a perfect compound was envisioned for every conceivable circumstance: there would be smart shots, memory erasers, "antivitamin," knock-out drops, "aphrodisiacs for operational use," drugs that caused "headache clusters" or uncontrollable twitching, drugs that could induce cancer, a stroke or a heart attack without leaving a trace as to the source of the ailment. There were chemicals to make a drunk man sober and a sober man as drunk as a fish. Even a "recruitment pill" was contemplated. What's more, according to a document dated May 5, 1955, the CIA placed a high priority on the development of a drug "which will produce 'pure euphoria' with no subsequent letdown."

This is not to suggest that the CIA had given up on LSD. On the contrary, after grappling with the drug for a number of years, the Agency devised new methods of interrogation based on the "far-out" possibilities of this mind-altering substance. When employed as a third-degree tactic, acid enabled the CIA to approach a hostile subject with a great deal of leverage. CIA operatives realized that intense mental confusion could be produced by deliberately attacking a person along psychological lines. Of all the chemicals that caused mental derangement, none was as powerful as LSD. Acid not only made people extremely anxious, it also broke down the character defenses for handling anxiety. A skillful interrogator could exploit this vulnerability by threatening to keep an unwitting subject in a tripped-out state indefinitely unless he spilled the beans. This tactic often proved successful where others had failed. CIA documents indicate that LSD was employed as an aid to interrogation on an operational basis from the mid-1950s through the early 1960s.

#### Laboratories of the State

When the CIA first became interested in LSD, only a handful of scientists in the United States were engaged in hallucinogenic drug research. At the time there was little private or public support for this relatively new field of experimental psychiatry, and no one had undertaken a systematic investigation of LSD. The CIA's mind control specialists sensed a golden opportunity in the making. With a sizable treasure chest at their disposal they were in a position to boost the careers of scientists whose skill and expertise would be of maximum benefit to the CIA. Almost overnight a whole new market for grants in LSD research sprang into existence as money

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started pouring through CIA-linked conduits or "cutouts" such as the Geschickter Fund for Medical Research, the Society for the Study of Human Ecology, and the Josiah Macy, Jr. Foundation.

Among those who benefited from the CIA's largesse was Dr. Max Rinkel, the first person to bring LSD to the United States. In 1949 Rinkel, a research psychiatrist, obtained a supply of LSD from Sandoz Pharmaceuticals in Switzerland and gave the drug to his partner, Dr. Robert Hyde, who took the first acid trip in the Western Hemisphere. Rinkel and Hyde went on to organize an LSD study at the Boston Psychopathic Institute, a pioneering mental health clinic affiliated with Harvard University. They tested the drug on one hundred volunteers and reported the initial findings in May 1950 (nearly three years before the CIA began funding their work) at the annual meeting of the American Psychiatric Association. Rinkel announced that LSD produced "a transitory psychotic disturbance" in normal subjects. This was highly significant, for it raised the possibility that mental disorders could be studied objectively in a controlled experimental setting.

Rinkel's hypothesis was supported and expanded upon during the same forum by Dr. Paul Hoch, a prominent psychiatrist who would also proffer his services to the CIA in the years ahead. Hoch reported that the symptoms produced by LSD, mescaline and related drugs were similar to those of schizophrenia: intensity of color perception, hallucinations, depersonalization, intense anxiety, paranoia, and in some cases catatonic manifestations. As Hoch put it, "LSD and Mescaline disorganize the psychic integration of the individual." He believed that the medical profession was fortunate to have access to these substances, for now it would be possible to reconstruct temporary or "model" psychoses in the laboratory. LSD was considered an exceptional research tool in that the subject could provide a detailed description of his experience while he was under the influence of the drug. It was hoped that careful analysis of these data would shed new light on schizophrenia and other enigmatic mental diseases.

Hoch's landmark thesis—that LSD was a "psychotomimetic" or "madness-mimicking" agent—caused a sensation in scientific circles and led to several important and stimulating theories regarding the biochemical basis of schizophrenia. This in turn sparked an upsurge of interest in brain chemistry and opened new vistas in the field of experimental psychiatry. In light of the extremely high po-

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tency of LSD, it seemed completely plausible that infinitesimal traces of a psychoactive substance produced through metabolic dysfunction by the human organism might cause psychotic disturbances. Conversely, attempts to alleviate a "lysergic psychosis" might point the way toward curing schizophrenia and other forms of mental illness.\*

As it turned out, the model psychosis concept dovetailed particularly well with the secret schemes of the CIA, which also viewed LSD in terms of its ability to blow minds and make people crazy. Thus it is not surprising that the CIA chose to invest in men like Rinkel and Hoch. Most scientists were flattered by the government's interest in their research, and they were eager to assist the CIA in its attempt to unravel the riddle of LSD. This was, after all, the Cold War, and one did not have to be a blue-ribbon hawk or a hard-liner to work in tandem with American intelligence.

In the early 1950s the CIA approached Dr. Nick Bercel, a psychiatrist who maintained a private practice in Los Angeles. Bercel was one of the first people in the United States to work with LSD, and the CIA asked him to consider a haunting proposition. What would happen if the Russians put LSD in the water supply of a large American city? A skillful saboteur could carry enough acid in his coat pocket to turn an entire metropolis into a loony bin, assuming he found a way to distribute it equally. In light of this frightening prospect, would Bercel render a patriotic service by calculating exactly how much LSD would be required to contaminate the water supply of Los Angeles? Bercel consented, and that evening he dissolved a tiny amount of acid in a glass of tap water, only to discover that the chlorine neutralized the drug. "Don't worry," he told his CIA contact, "it won't work."

The Agency took this as a mandate, and another version of LSD was eventually concocted to overcome this drawback. A CIA document states accordingly, "If the concept of contaminating a city's water supply seems, or in actual fact, is found to be far-fetched (this is by no means certain), there is still the possibility of contaminating, say, the water supply of a bomber base or, more easily still, that of a battleship.... Our current work contains the strong

\* While the miracle cure never panned out, it is worth noting that Thorazine was found to mollify an LSD reaction and subsequently became a standard drug for controlling patients in mental asylums and prisons.

suggestion that LSD-25 will produce hysteria (unaccountable laughing, anxiety, terror). . . . It requires little imagination to realize what the consequences might be if a battleship's crew were so affected."

The CIA never got in touch with Berzel again, but they monitored his research reports in various medical journals. When Berzel gave LSD to spiders, they spun perfectly symmetrical webs. Animal studies also showed that cats cringed before untreated mice, and fish that normally swam close to the bottom of a water tank hovered near the top. In another experiment Dr. Louis Joylon ("Jolly") West, chairman of the Department of Psychiatry at the University of Oklahoma, injected an elephant with a massive dose of 300,000 micrograms. Dr. West, a CIA contract employee and an avid believer in the notion that hallucinogens were psychotomimetic agents, was trying to duplicate the periodic "rut" madness that overtakes male elephants for about one week each year. But the animal did not experience a model elephant psychosis; it just keeled over and remained in a motionless stupor. In attempting to revive the elephant, West administered a combination of drugs that ended up killing the poor beast.

Research on human subjects showed that LSD lodged primarily in the liver, spleen, and kidneys. Only a tiny amount (.01%) of the original dose entered the brain, and it only remained there for twenty minutes. This was a most curious finding, as the effect of LSD was not evident until the drug had disappeared entirely from the central nervous system. Some scientists thought LSD might act as a trigger mechanism, releasing or inhibiting a naturally occurring substance in the brain, but no one could figure out exactly why the drug had such a dramatic effect on the mind.

Many other questions were in need of clarification. Could the drug be fatal? What was the maximum dose? Were the effects constant, or were there variations according to different personality types? Could the reaction be accentuated by combining LSD with other chemicals? Was there an antidote? Some of these questions overlapped with legitimate medical concerns, and researchers on CIA stipends published unclassified versions of their work in prestigious scientific periodicals. But these accounts omitted secret data given to the CIA on how LSD affected "operationally pertinent categories" such as disturbance of memory, alteration of sex patterns,

eliciting information, increasing suggestibility, and creating emotional dependence.

The CIA was particularly interested in psychiatric reports suggesting that LSD could break down familiar behavior patterns, for this raised the possibility of reprogramming or brainwashing. If LSD temporarily altered a person's view of the world and suspended his belief system, CIA doctors surmised, then perhaps Russian spies could be cajoled into switching loyalties while they were tripping. The brainwashing strategy was relatively simple: find the subject's weakest point (his "squeaky board") and bear down on it. Use any combination or synthesis which might "open the mind to the power of suggestion to a degree never hitherto dreamed possible." LSD would be employed to provoke a reality shift, to break someone down and tame him, to find a locus of anonymity and leave a mark there forever.

To explore the feasibility of this approach, the Agency turned to Dr. Ewen Cameron, a respected psychiatrist who served as president of the Canadian, the American, and the World Psychiatric Associations before his death in 1967. Cameron also directed the Allain Memorial Institute at Montreal's McGill University, where he developed a bizarre and unorthodox method for treating schizophrenia. With financial backing from the CIA he tested his method on fifty-three patients at Allain. The so-called treatment started with "sleep therapy," in which subjects were knocked out for months at a time. The next phase, "depatterning," entailed massive electroshock and frequent doses of LSD designed to wipe out past behavior patterns. Then Cameron tried to recondition the mind through a technique known as "psychic driving." The patients, once again heavily sedated, were confined to "sleep rooms" where tape-recorded messages played over and over from speakers under their pillows. Some heard the same message a quarter of a million times.

Cameron's methods were later discredited, and the CIA grudgingly gave up on the notion of LSD as a brainwashing technique. But that was little consolation to those who served as guinea pigs for the CIA's secret mind control projects. Nine of Cameron's former patients have sued the American government for \$1,000,000 each, claiming that they are still suffering from the trauma they went through at Allain. These people never agreed to participate in a scientific experiment—a fact which reflects little credit on the CIA,

even if Agency officials feared that the Soviets were spurting ahead in the mind control race. The CIA violated the Nuremberg Code for medical ethics by sponsoring experiments on unwitting subjects. Ironically, Dr. Cameron was a member of the Nuremberg tribunal that heard the case against Nazi war criminals who committed atrocities during World War II.

Like the Nazi doctors at Dachau, the CIA victimized certain groups of people who were unable to resist: prisoners, mental patients, foreigners, the terminally ill, sexual deviants, ethnic minorities. One project took place at the Addiction Research Center of the US Public Health Service Hospital in Lexington, Kentucky. Lexington was ostensibly a place where heroin addicts could go to shake a habit, and although it was officially a penitentiary, all the inmates were referred to as "patients." The patients had their own way of referring to the doctors—"hacks" or "croakers"—who patrolled the premises in military uniforms.

The patients at Lexington had no way of knowing that it was one of fifteen penal and mental institutions utilized by the CIA in its super-secret drug development program. To conceal its role the Agency enlisted the aid of the navy and the National Institutes of Mental Health (NIMH), which served as conduits for channeling money to Dr. Harris Isbell, a gung-ho research scientist who remained on the CIA payroll for over a decade. According to CIA documents the directors of NIMH and the National Institutes of Health were fully cognizant of the Agency's "interest" in Isbell's work and offered "full support and protection."

When the CIA came across a new drug (usually supplied by American pharmaceutical firms) that needed testing, they frequently sent it over to their chief doctor at Lexington, where an ample supply of captive guinea pigs was readily available. Over eight hundred compounds were farmed out to Isbell, including LSD and a variety of hallucinogens. It became an open secret among street junkies that if the supply got tight, you could always commit yourself to Lexington, where heroin and morphine were doled out as payment if you volunteered for Isbell's wacky drug experiments. (Small wonder that Lexington had a return rate of 90%.) Dr. Isbell, a longtime member of the Food and Drug Administration's Advisory Committee on the Abuse of Depressant and Stimulant Drugs, defended the volunteer system on the grounds that there was no precedent at the time for offering inmates cash for their services.

CIA documents describe experiments conducted by Isbell in which certain patients—nearly all black inmates—were given LSD for more than seventy-five consecutive days. In order to overcome tolerance to the hallucinogen, Isbell administered "double, triple and quadruple doses." A report dated May 5, 1959, comments on an experiment involving psilocybin (a semi-synthetic version of the magic mushroom). Subjects who ingested the drug became extremely anxious, although sometimes there were periods of intense elation marked by "continuous gales of laughter." A few patients felt that they "had become very large, or had shrunk to the size of children. Their hands or feet did not seem to be their own and sometimes took on the appearance of animal paws.... They reported many fantasies or dreamlike states in which they seemed to be elsewhere. Fantastic experiences, such as trips to the moon or living in gorgeous castles, were occasionally reported."

Isbell concluded, "Despite these striking subjective experiences, the patients remained oriented in time, place and person. In most instances, the patients did not lose their insight but realized that the effects were due to the drug. Two of the nine patients, however, did lose insight and felt that their experiences were caused by the experimenters controlling their minds."

In addition to his role as a research scientist, Dr. Isbell served as a go-between for the CIA in its attempt to obtain drug samples from European pharmaceutical concerns which assumed they were providing "medicine" to a US Public Health official. The CIA in turn acted as a research coordinator, passing information, tips, and leads to Isbell and its other contract employees so that they could keep abreast of each other's progress; when a new discovery was made, the CIA would often ask another researcher to conduct a follow-up study for confirmation. One scientist whose work was coordinated with Isbell's in such a manner was Dr. Carl Pfeiffer, a noted pharmacologist from Princeton who tested LSD on inmates at the federal prison in Atlanta and the Borden Reformatory in New Jersey.

Isbell, Pfeiffer, Cameron, West, and Hoch—all were part of a network of doctors and scientists who gathered intelligence for the CIA. Through these scholar-informants the Agency stayed on top of the latest developments within the "aboveground" LSD scene, which expanded rapidly during the Cold War. By the mid-1950s numerous independent investigators had undertaken hallucinogenic drug studies, and the CIA was determined not to let the slightest detail escape

its grasp. In a communiqué dated May 26, 1954, the Agency ordered all domestic field offices in the United States to monitor scientists engaged in LSD research. People of interest, the memo explained, "will most probably be found in biochemistry departments of universities, mental hospitals, private psychiatric practice. . . . We do ask that you remember their importance and report their work when it comes to your attention."

The CIA also expended considerable effort to monitor the latest developments in LSD research on a worldwide scale. Drug specialists funded by the Agency made periodic trips to Europe to confer with scientists and representatives of various pharmaceutical concerns, including, of course, Sandoz Laboratories. Initially the Swiss firm provided LSD to investigators all over the world free of charge, in exchange for full access to their research data. (CIA researchers did not comply with this stipulation.) By 1953 Sandoz had decided to deal directly with the US Food and Drug Administration (FDA), which assumed a supervisory role in distributing LSD to American investigators from then on. It was a superb arrangement as far as the CIA was concerned, for the FDA went out of its way to assist the secret drug program. With the FDA as its junior partner, the CIA not only had ready access to supplies of LSD (which Sandoz marketed for a while under the brand name Delysid) but also was able to keep a close eye on independent researchers in the United States.

The CIA would have been content to let the FDA act as an intermediary in its dealings with Sandoz, but business as usual was suspended when the Agency learned of an offer that could not be refused. Prompted by reports that large quantities of the drug were suddenly available, top-level CIA officials authorized the purchase of ten *kilos* of LSD from Sandoz at an estimated price of \$240,000—enough for a staggering one hundred million doses. A document dated November 16, 1953, characterized the pending transaction as a "risky operation," but CIA officials felt it was necessary, if only to preclude any attempt the Communists might make to get their hands on the drug. What the CIA intended to do with such an incredible stash of acid was never made clear.

The CIA later found out that Sandoz had never produced LSD in quantities even remotely resembling ten kilograms. Apparently only ten milligrams were for sale, but a CIA contact in Switzerland mistook a kilogram, 1000 grams, for a milligram (.001 grams), which would explain the huge discrepancy. Nevertheless, Sandoz officials

were pleased by the CIA's interest in their product, and the two organizations struck up a cooperative relationship. Arthur Stoll, president of Sandoz, agreed to keep the CIA posted whenever new LSD was produced or a shipment was delivered to a customer. Likewise, any information concerning LSD research behind the Iron Curtain would be passed along confidentially.

But the CIA did not want to depend on a foreign company for supplies of a substance considered vital to American security interests. The Agency asked the Eli Lilly Company in Indianapolis to try to synthesize a batch of all-American acid. By mid-1954 Lilly had succeeded in breaking the secret formula held by Sandoz. "*This is a closely guarded secret,*" a CIA document declared, "*and should not be mentioned generally.*" Scientists at Lilly assured the CIA that "in a matter of months LSD would be available in tonnage quantities."

### Midnight Climax

In a speech before the National Alumni Conference at Princeton University on April 10, 1953, newly appointed CIA director Allen Dulles lectured his audience on "how sinister the battle for men's minds had become in Soviet hands." The human mind, Dulles warned, was a "malleable tool," and the Red Menace had secretly developed "brain perversion techniques." Some of these methods were "so subtle and so abhorrent to our way of life that we have recoiled from facing up to them." Dulles continued, "The minds of selected individuals who are subjected to such treatment . . . are deprived of the ability to state their own thoughts. Parrot-like, the individuals so conditioned can merely repeat the thoughts which have been implanted in their minds by suggestion from outside. In effect the brain . . . becomes a phonograph playing a disc put on its spindle by an outside genius over which it has no control."

Three days after delivering this address Dulles authorized Operation MK-ULTRA, the CIA's major drug and mind control program during the Cold War. MK-ULTRA was the brainchild of Richard Helms, a high-ranking member of the Clandestine Services (otherwise known as the "dirty tricks department") who championed such methods throughout his career as an intelligence officer. As Helms explained to Dulles when he first proposed the MK-ULTRA project, "Aside from the offensive potential, the development of a compre-

hensive capability in this field... gives us a thorough knowledge of the enemy's theoretical potential, thus enabling us to defend ourselves against a foe who might not be as restrained in the use of these techniques as we are."

The supersecret MK-ULTRA program was run by a relatively small unit within the CIA known as the Technical Services Staff (TSS). Originally established as a supplementary funding mechanism to the ARTICHOKE project, MK-ULTRA quickly grew into a mammoth undertaking that outflanked earlier mind control initiatives. For a while both the TSS and the Office of Security (which directed the ARTICHOKE project) were engaged in parallel LSD tests, and a heated rivalry developed between the two groups. Security officials were miffed because they had gotten into acid first and then this new clique started cutting in on what the ARTICHOKE crowd considered their rightful turf.

The internecine conflict grew to the point where the Office of Security decided to have one of its people spy on the TSS. This set off a flurry of memos between the Security informant and his superiors, who were dismayed when they learned that Dr. Sidney Gottlieb, the chemist who directed the MK-ULTRA program, had approved a plan to give acid to unwitting American citizens. The Office of Security had never attempted such a reckless gesture—although it had its own idiosyncrasies; ARTICHOKE operatives, for example, were attempting to have a hypnotized subject kill someone while in a trance.

Whereas the Office of Security utilized LSD as an interrogation weapon, Dr. Gottlieb had other ideas about what to do with the drug. Because the effects of LSD were temporary (in contrast to the fatal nerve agents), Gottlieb saw important strategic advantages for its use in covert operations. For instance, a surreptitious dose of LSD might disrupt a person's thought process and cause him to act strangely or foolishly in public. A CIA document notes that administering LSD "to high officials would be a relatively simple matter and could have a significant effect at key meetings, speeches, etc." But Gottlieb realized there was a considerable difference between testing LSD in a laboratory and using the drug in clandestine operations. In an effort to bridge the gap, he and his TSS colleagues initiated a series of in-house experiments designed to find out what would happen if LSD was given to someone in a "normal" life setting without advance warning.

They approached the problem systematically, taking one step at a time, until they reached a point where outsiders were zapped with no explanation whatsoever. First everyone in Technical Services tried LSD. They tripped alone and in groups. A typical experiment involved two people pairing off in a closed room where they observed each other for hours at a time, took notes, and analyzed their experiences. As Gottlieb later explained, "There was an extensive amount of self-experimentation for the reason that we felt that a first hand knowledge of the subjective effects of these drugs [was] important to those of us who were involved in the program."

When they finally learned the hallucinogenic ropes, so to speak, they agreed among themselves to slip LSD into each other's drinks. The target never knew when his turn would come, but as soon as the drug was ingested a TSS colleague would tell him so he could make the necessary preparations—which usually meant taking the rest of the day off. Initially the leaders of MK-ULTRA restricted the surprise acid tests to TSS members, but when this phase had run its course they started dosing other Agency personnel who had never tripped before. Nearly everyone was fair game, and surprise acid trips became something of an occupational hazard among CIA operatives. Such tests were considered necessary because foreknowledge would prejudice the results of the experiment.

Indeed, things were getting a bit raucous down at headquarters. When Security officials discovered what was going on, they began to have serious doubts about the wisdom of the TSS game plan. Moral reservations were not paramount; it was more a sense that the MK-ULTRA staff had become unhinged by the hallucinogen. The Office of Security felt that the TSS should have exercised better judgment in dealing with such a powerful and dangerous chemical. The straw that broke the camel's back came when a Security informant got wind of a plan by a few TSS jokers to put LSD in the punch served at the annual CIA Christmas office party. A Security memo dated December 15, 1954, noted that acid could "produce serious insanity for periods of 8 to 18 hours and possibly for longer." The writer of this memo concluded indignantly and unequivocally that he did "not recommend testing in the Christmas punch bowls usually present at the Christmas office parties."

The purpose of these early acid tests was not to explore mystical realms or higher states of consciousness. On the contrary, the TSS was trying to figure out how to employ LSD in espionage operations!

Nevertheless, there were times when CIA agents found themselves propelled into a visionary world and they were deeply moved by the experience. One MK-ULTRA veteran wept in front of his colleagues at the end of his first trip. "I didn't want to leave it," he explained. "I felt I would be going back to a place where I wouldn't be able to hold on to this kind of beauty." His colleagues assumed he was having a bad trip and wrote a report stating that the drug had made him psychotic.

Adverse reactions often occurred when people were given LSD on an impromptu basis. On one occasion a CIA operative discovered he'd been dosed during his morning coffee break. "He sort of knew he had it," a fellow-agent recalled, "but he couldn't pull himself together. Somehow, when you know you've taken it, you start the process of maintaining your composure. But this grabbed him before he was aware, and it got away from him." Then he got away from them and fled across Washington stoned out of his mind while they searched frantically for their missing comrade. "He reported afterwards," the TSS man continued, "that every automobile that came by was a terrible monster with fantastic eyes, out to get him personally. Each time a car passed he would huddle down against a parapet, terribly frightened. It was a real horror for him. I mean, it was hours of agony... like being in a dream that never stops—with someone chasing you."

Incidents such as these reaffirmed to the MK-ULTRA crew just how devastating a weapon LSD could be. But this only made them more enthusiastic about the drug. They kept springing it on people in a manner reminiscent of the ritual hazing of fraternity pledges. "It was just too damned informal," a TSS officer later said. "We didn't know much. We were playing around in ignorance.... We were just naive about what we were doing."

Such pranks claimed their first victim in November 1953, when a group of CIA and army technicians gathered for a three-day work retreat at a remote hunting lodge in the backwoods of Maryland. On the second day of the meeting Dr. Gottlieb spiked the after-dinner cocktails with LSD. As the drug began to take effect, Gottlieb told everyone that they had ingested a mind-altering chemical. By that time the group had become boisterous with laughter and unable to carry on a coherent conversation.

One man was not amused by the unexpected turn of events. Dr.

Frank Olson, an army scientist who specialized in biological warfare research, had never taken LSD before, and he slid into a deep depression. His mood did not lighten when the conference adjourned. Normally a gregarious family man, Olson returned home quiet and withdrawn. When he went to work after the weekend, he asked his boss to fire him because he had "messed up the experiment" during the retreat. Alarmed by his erratic behavior, Olson's superiors contacted the CIA, which sent him to New York to see Dr. Harold Abramson. A respected physician, Abramson taught at Columbia University and was chief of the allergy clinic at Mount Sinai Hospital. He was also one of the CIA's principal LSD researchers and a part-time consultant to the Army Chemical Corps. While these were impressive credentials, Abramson was not a trained psychiatrist, and it was this kind of counseling his patient desperately needed.

For the next few weeks Olson confided his deepest fears to Abramson. He claimed the CIA was putting something in his coffee to make him stay awake at night. He said people were plotting against him and he heard voices at odd hours commanding him to throw away his wallet—which he did, even though it contained several uncashed checks. Dr. Abramson concluded that Olson was mired in "a psychotic state... with delusions of persecution" that had been "crystallized by the LSD experience." Arrangements were made to move him to Chestnut Lodge, a sanatorium in Rockville, Maryland, staffed by CIA-cleared psychiatrists. (Apparently other CIA personnel who suffered from psychiatric disorders were enrolled in this institution.) On his last evening in New York, Olson checked into a room at the Statler Hilton along with a CIA agent assigned to watch him. And then, in the wee hours of the morning, the troubled scientist plunged headlong through a closed window to his death ten floors below.

The Olson suicide had immediate repercussions within the CIA. An elaborate cover-up erased clues to the actual circumstances leading up to his death. Olson's widow was eventually given a government pension, and the full truth of what happened would not be revealed for another twenty years. Meanwhile CIA director Allen Dulles suspended the in-house testing program for a brief period while an internal investigation was conducted. In the end, Gottlieb and his team received only a mildly worded reprimand for exercising "bad judgment," but no records of the incident were kept in their

personnel files which would harm their future careers. The importance of LSD eclipsed all other considerations, and the secret acid tests resumed.

Gottlieb was now ready to undertake the final and most daring phase of the MK-ULTRA program: LSD would be given to unwitting targets in real-life situations. But who would actually do the dirty work? While looking through some old OSS files, Gottlieb discovered that marijuana had been tested on unsuspecting subjects in an effort to develop a truth serum. These experiments had been organized by George Hunter White, a tough, old-fashioned narcotics officer who ran a training school for American spies during World War II. Perhaps White would be interested in testing drugs for the CIA. As a matter of protocol Gottlieb first approached Harry Anslinger, chief of the Federal Narcotics Bureau. Anslinger was favorably disposed and agreed to "lend" one of his top men to the CIA on a part-time basis.

Right from the start White had plenty of leeway in running his operations. He rented an apartment in New York's Greenwich Village, and with funds supplied by the CIA he transformed it into a safehouse complete with two-way mirrors, surveillance equipment, and the like. Posing as an artist and a seaman, White lured people back to his pad and slipped them drugs. A clue as to how his subjects fared can be found in White's personal diary, which contains passing references to surprise LSD experiments: "Gloria gets horrors.... Janet sky high." The frequency of bad reactions prompted White to coin his own code word for the drug: "Stormy," which was how he referred to LSD throughout his fourteen-year stint as a CIA operative.

In 1955 White was transferred to San Francisco, where two more safehouses were established. During this period he initiated Operation Midnight Climax, in which drug-addicted prostitutes were hired to pick up men from local bars and bring them back to a CIA-financed bordello. Unknowing customers were treated to drinks laced with LSD while White sat on a portable toilet behind two-way mirrors, sipping martinis and watching every stoned and kinky moment. As payment for their services the hookers received \$100 a night, plus a guarantee from White that he'd intercede on their behalf should they be arrested while plying their trade. In addition to providing data about LSD, Midnight Climax enabled the CIA to learn about the sexual proclivities of those who passed through the safehouses. White's harem of prostitutes became the focal point of an

extensive CIA study of how to exploit the art of lovemaking for espionage purposes.

When he wasn't operating a national security whorehouse, White would cruise the streets of San Francisco tracking down drug pushers for the Narcotics Bureau. Sometimes after a tough day on the beat he invited his narc buddies up to one of the safehouses for a little "R & R." Occasionally they unzipped their inhibitions and partied on the premises—much to the chagrin of the neighbors, who began to complain about men with guns in shoulder straps chasing after women in various states of undress. Needless to say, there was always plenty of dope around, and the feds sampled everything from hashish to LSD. "So far as I'm concerned," White later told an associate, "'clear thinking' was non-existent while under the influence of any of these drugs. I did feel at times like I was having a 'mind-expanding experience' but this vanished like a dream immediately after the session."

White had quite a scene going for a while. By day he fought to keep drugs out of circulation, and by night he dispensed them to strangers. Not everyone was cut out for this kind of schizophrenic lifestyle, and White often relied on the bottle to reconcile the two extremes. But there were still moments when his Jekyll-and-Hyde routine got the best of him. One night a friend who had helped install bugging equipment for the CIA stopped by the safehouse only to find the roly-poly narcotics officer slumped in front of a full-length mirror. White had just finished polishing off a half gallon of Gibson's. There he sat, with gun in hand, shooting wax slugs at his own reflection.

The safehouse experiments continued without interruption until 1963, when CIA inspector general John Earman accidentally stumbled across the clandestine testing program during a routine inspection of TSS operations. Only a handful of CIA agents outside Technical Services knew about the testing of LSD on unwitting subjects, and Earman took Richard Helms, the prime instigator of MK-ULTRA, to task for not fully briefing the new CIA director, John J. McCone. Although McCone had been handpicked by President Kennedy to replace Allen Dulles as the dean of American intelligence, Helms apparently had his own ideas about who was running the CIA.

Earman had grave misgivings about MK-ULTRA and he prepared a twenty-four-page report that included a comprehensive overview



of the drug and mind control projects. In a cover letter to McCone he noted that the "concepts involved in manipulating human behavior are found by many people within and outside the Agency to be distasteful and unethical." But the harshest criticism was reserved for the safehouse experiments, which, in his words, placed "the rights and interests of U.S. citizens in jeopardy." Earman stated that LSD had been tested on "individuals at all social levels, high and low, native American and foreign." Numerous subjects had become ill, and some required hospitalization for days or weeks at a time. Moreover, the sophomoric procedures employed during the safehouse sessions raised serious questions about the validity of the data provided by White, who was hardly a qualified scientist. As Earman pointed out, the CIA had no way of knowing whether White was fudging the results to suit his own ends.

Earman recommended a freeze on unwitting drug tests until the matter was fully considered at the highest level of the CIA. But Helms, then deputy director for covert operations (the number two position within the Agency), defended the program. In a memo dated November 9, 1964, he warned that the CIA's "positive operational capacity to use drugs is diminishing owing to a lack of realistic testing," and he called for a resumption of the safehouse experiments. While admitting that he had "no answer to the moral issue," Helms argued that such tests were necessary "to keep up with Soviet advances in this field."

This Cold War refrain had a familiar ring. Yet only a few months earlier Helms had sung a different tune when J. Lee Rankin, chief counsel of the Warren Commission investigating the Kennedy assassination, asked him to report on Soviet mind control initiatives. Helms stated his views in a document dated June 26, 1964: "Soviet research in the pharmacological agents producing behavioral effects has consistently lagged five years *behind* Western research [emphasis added]." Furthermore, he confidently asserted that the Russians did not have "any singular, new potent drugs...to force a course of action on an individual."

The bureaucratic wrangling at CIA headquarters didn't seem to bother George Hunter White, who kept on sending vouchers for "unorthodox expenses" to Dr. Sidney Gottlieb. No definitive record exists as to when the unwitting acid tests were terminated, but it appears that White and the CIA parted ways when he retired from the Narcotics Bureau in 1966. Afterwards White reflected upon his

service for the Agency in a letter to Gottlieb: "I was a very minor missionary, actually a heretic, but I toiled wholeheartedly in the vineyards because it was fun, fun, fun. Where else could a red-blooded American boy lie, kill, cheat, steal, rape, and pillage with the sanction and blessing of the All-Highest?"

By this time the CIA had developed a "stable of drugs," including LSD, that were used in covert operations. The decision to employ LSD on an operational basis was handled through a special committee that reported directly to Richard Helms, who characterized the drug as "dynamite" and asked to be "advised at all times when it was intended for use." A favorite plan involved slipping "P-1" (the code name for LSD when used operationally) to socialist or left-leaning politicians in foreign countries so that they would babble incoherently and discredit themselves in public.

Fidel Castro was among the Third World leaders targeted for surprise acid attacks. When this method proved unworkable, CIA strategists thought of other ways to embarrass the Cuban premier. One scheme involved dusting Castro's shoes with thallium salts to make his beard fall out. Apparently they thought that Castro would lose his charisma along with his hair. Eventually the Agency shifted its focus from bad trips and close shaves to eliminating Castro altogether. Gottlieb and his TSS cohorts were asked to prepare an array of bizarre gadgets and biochemical poisons for a series of murder conspiracies allying the CIA with anti-Castro mercenaries and the Mob.

Egyptian president Gamal Abdal Nasser also figured high on the CIA's hallucinogenic hit list. While he managed to avoid such a fate, others presumably were less fortunate. CIA documents cited in a documentary by ABC News confirm that Gottlieb carried a stash of acid overseas on a number of occasions during the Cold War with the intention of dosing foreign diplomats and statesmen. But the effects of LSD were difficult to predict when employed in such a haphazard manner, and the CIA used LSD only sparingly in operations of this sort.

### *The Hallucination Battlefield*

While the CIA was interested in LSD primarily as an instrument of clandestine warfare, the United States Army pursued a more gran-

diose scheme. During the Cold War top-level military brass waxed enthusiastic over the prospect of a new kind of chemical weapon that would revolutionize combat. They imagined aircraft swooping over enemy territory releasing clouds of "madness gas" that would disorient people and dissolve their will to resist. This scenario appealed to those in the Pentagon who felt hamstrung by the possibility of a nuclear shoot-out with the Russkies. They realized that new methods of waging limited warfare would have to be developed, and psychochemical weapons seemed to offer an attractive alternative.

According to Major General William Creasy, chemical incapacitants went hand in glove with the strategic requirements of the Cold War. As chief officer of the Army Chemical Corps, Creasy promoted the psychochemical cause with eccentric and visionary zeal. He maintained that this type of warfare was not only feasible but tactically advantageous in certain situations. Consider, for example, the difficult task of dislodging enemy soldiers from a city inhabited by an otherwise friendly population—an industrial center perhaps, bustling with activity. Assume that the city housed numerous museums and cultural landmarks. Why blow to smithereens the best and worst alike with an old-fashioned artillery barrage? The prospect of obliterating the whole kit and caboodle seemed downright foolish to Creasy if you could get away with less.

Suppose instead you found a way to spike the city's water supply or to release a hallucinogen in aerosol form. For twelve to twenty-four hours all the people in the vicinity would be hopelessly giddy, vertiginous, spaced-out. Those under the spell of madness gas would be incapable of raising a whimper of protest while American troops established themselves on what was once forbidden turf. Victory would be a foregone conclusion, as smooth and effortless as the French army in *The King of Hearts* strolling into a town inhabited solely by asylum inmates.

Yes, wouldn't it be nice to take the teeth out of war and at the same time make its result so final? Just blow their minds, move in, and take over; it was that simple—or so Creasy claimed. As soon as the citizenry recovered from their relatively brief stint in the ozone, everyone would return to a nine-to-five schedule. There'd be no fatalities and, except for a few borderline psychotics pushed over the edge by the drug, no sick or wounded needing medical care. Most important, the local economy would have suffered no significant setback.

Psychochemical weapons, Creasy argued, offered the most humane way of conducting the dirty business of warfare. He preached a new military gospel: war without death. An era of bloodless combat was just around the proverbial corner. There was only one problem: The sadly misinformed lay public and their elected officials harbored a knee-jerk aversion to chemical weapons.

In May 1959 Creasy took his case directly to the people by granting interviews to reporters and stumping for psychochemicals on a cross-country lecture tour. "I do not contend that driving people crazy—even for a few hours—is a pleasant prospect," he told *This Week* magazine. "But warfare is never pleasant. And to those who feel that any kind of chemical weapon is more horrible than conventional weapons, I put this question: Would you rather be temporarily deranged, blinded, or paralyzed by a chemical agent, or burned alive by a conventional fire bomb?"

Creasy testified a short time later to the House Committee on Science and Astronautics. He explained to the bewildered congressmen how a psychochemical "attacks the sensory, perception, and nerve centers of the body... discombobulating them.... Your hearing might be affected, your sight might be affected, your physical balance might be affected." Moreover, these drugs worked so swiftly that people wouldn't even know they'd been hit.

Representative James Fulton (R-Pa.) was disturbed by Creasy's remarks. He wondered if some foreign power might already be subjecting people in the United States to such agents. "How can we determine it?" Fulton asked. "What is the test to see whether we are already being subjected to them? Are we under it now?... Are we the rabbits and the guinea pigs?... How are we to know?"

Simple, said Creasy. If LSD or a related drug was administered to members of Congress, "we could possibly have you dancing on the desks, or shouting Communist speeches."

Fulton gasped. "Have you ever tried them on Congress?"

"I can assure you of one thing," said Creasy. "The Chemical Corps of the Army has not found it necessary to do it up until now."

Creasy's five-star performance succeeded in winning the hearts, minds, and appropriations of Congress and the Joint Chiefs of Staff. A sizable budget increase was awarded to the Chemical Corps for the express purpose of developing a nonlethal incapacitant that could subdue a foe without inflicting permanent injury. Apparently Creasy neglected to inform the congressmen of the death of Harold Blauer

in 1953. Blauer, a tennis professional, was the subject of a drug study conducted by a group of doctors working under army contract at the New York State Psychiatric Institute. He died a few hours after receiving an injection of MDA (methyl di-amphetamine, known in latter-day street parlance as the "love drug") supplied by Edgewood Arsenal, headquarters of the Army Chemical Corps. "We didn't know if it was dog piss or what it was we were giving him," an army researcher later admitted.

The scientist who directly oversaw this research project was Dr. Paul Hoch, an early advocate of the theory that LSD and other hallucinogens were essentially psychosis-producing drugs. In succeeding years Hoch performed a number of bizarre experiments for the army while also serving as a CIA consultant. Intraspinal injections of mescaline and LSD were administered to psychiatric patients, causing an "immediate, massive, and almost shocklike picture with higher doses." Aftereffects ("generalized discomfort," "withdrawal," "oddness," and "unreality feelings") lingered for two to three days following the injections. Hoch, who later became New York State Commissioner for Mental Hygiene, also gave LSD to psychiatric patients and then lobotomized them in order to compare the effects of acid before and after psychosurgery. ("It is possible that a certain amount of brain damage is of therapeutic value," Hoch once stated.) In one experiment a hallucinogen was administered along with a local anesthetic and the subject was told to describe his visual experiences as surgeons removed chunks of his cerebral cortex.

Another scientist who rented his services to the CIA as well as the military was Dr. Robert Heath of Tulane University. Heath and his colleagues administered LSD to people and then subjected them to electronic brain stimulation via electrode implant. One test subject became hysterical, lapsed into a trancelike state, and later claimed that the doctors were trying to manipulate her body. She was "obviously having paranoid ideas," commented an army employee.

In addition to sponsoring research at various universities and civilian hospitals, the army conducted extensive in-house studies with LSD. During the late 1950s a series of tests was initiated at Fort Bragg, North Carolina. Their purpose was to determine how well soldiers would fare in the execution of war games while high on acid. Small military units were given EA-1729, the army's secret code number for LSD, and asked to perform various operational exercises, including command-post maneuvers, squad drills, tank

driving, radarscope reading, antiaircraft tracking, meteorological and engineering surveys, and so on. The results showed performance ranging "from total incapacity to marked decrease in proficiency." Unbeknownst to the stoned servicemen, some of these exercises were filmed by the army and were later shown to members of Congress to demonstrate the disruptive influence of psychochemicals.

Concerned that LSD might one day be used covertly against an American military unit, certain officials suggested that every Chemical Corps officer should be familiar with the effects of the drug, if only as a precautionary measure. Accordingly nearly two hundred officers assigned to the Chemical Corps school at Fort McClellan, Alabama, were given acid as a supplement to their regular training program. Some staff members even tried to teach classes while tripping.

Additional tests were carried out at the Aberdeen Proving Ground in Maryland; Fort Benning, Georgia; Fort Leavenworth, Kansas; Dugway Proving Ground, Utah; and in various European and Pacific stations. Soldiers at Edgewood Arsenal were given LSD and confined to sensory deprivation chambers; then they were subjected to hostile questioning by intelligence officers. An army report concludes that an "interrogator of limited experience could compel a subject to compromise himself and to sign documents which could place him in jeopardy." With a stronger dose "a state of fear and anxiety could be induced where the subject could be compelled to trade his cooperation for a guarantee of return to normalcy."

Shortly thereafter the military began using LSD as an interrogation weapon on an operational basis, just as the CIA had been doing for years. An army memo dated September 6, 1961, discussed the interrogation procedure: "Stressing techniques employed included silent treatment before or after EA 1729 administration, sustained conventional interrogation prior to EA 1729 interrogation, deprivation of food, drink, sleep or bodily evacuation, sustained isolation prior to EA 1729 administration, hot-cold switches in approach, duress 'pitches,' verbal degradation and bodily discomfort, or dramatized threats to subject's life or mental health."

Documents pertaining to Operation DERBY HAT indicate that an army Special Purpose Team trained in LSD interrogations initiated a series of field tests in the Far East beginning in August 1962. Seven individuals were questioned; all were foreign nationals who had been implicated in drug smuggling or espionage activities, and in each

case the EA-1729 technique produced information that had not been obtained through other means. One subject vomited three times and stated that he "wanted to die" after the Special Purpose Team gave him LSD; his reaction was characterized as "moderate." Another went into shock and remained semiconscious for nearly an hour after receiving triple the dosage normally used in these sessions. When he came to, the Special Purpose Team propped him up in a chair and tried to question him, but the subject kept collapsing and hitting his head on the table, oblivious to the pain. A few hours later he started to talk. "The subject often voiced an anti-communist line," an army report noted, "and begged to be spared the torture he was receiving. In this confused state he even asked to be killed in order to alleviate his suffering."\*

By the mid-1960s nearly fifteen hundred military personnel had served as guinea pigs in LSD experiments conducted by the US Army Chemical Corps. Some later claimed they were coerced into "volunteering" for these experiments by their superior officers. A number of GI veterans complained they suffered from severe depression and emotional disturbances after the LSD trials. Ironically, there were also reports that soldiers at Edgewood Arsenal were stealing LSD from the laboratories and using it for recreational purposes. Some of these men had taken their first "trip" (the word originally coined by army scientists to describe an LSD session) when acid was given to unsuspecting GIs at mess parties.

Army policy restricted LSD tests to individual volunteers or small groups of military personnel. That was not enough for the leaders of the Chemical Corps. Major General Creasy bemoaned the fact that large-scale testing of psychochemical weapons in the United States was prohibited. "I was attempting to put on, with a good cover story," he grumbled, "to test to see what would happen in subways, for example, when a cloud was laid down on a city. It was denied on reasons that always seemed a little absurd to me."

\*Upon completion of their mission in November 1962, the Special Purpose Team was told to remain in Japan and wait for further instructions. Arrangements were made to extend their stay in the Pacific Theater for an additional sixty days so that they could travel to Saigon. According to the army inspector general, a letter hand-delivered to the team "allegedly announced the Secretary of Defense's decision to use LSD on Viet Cong POW's."

As it happened, however, LSD was much more effective by ingestion than by inhalation, and the Chemical Corps was unable to figure out an appropriate means for delivering the drug. This precluded any possibility of using LSD as a large-scale battle weapon. Undaunted, the military surrealists and their industrial counterparts forged ahead in search of a drug and a delivery system that could do the job. During the early-1960s Edgewood Arsenal received an average of four hundred chemical "rejects" every month from the major American pharmaceutical firms. Rejects were drugs found to be commercially useless because of their undesirable side effects. Of course, undesirable side effects were precisely what the army was looking for.

It was from Hoffmann-La Roche in Nutley, New Jersey, that Edgewood Arsenal obtained its first sample of a drug called quinuclidinyl benzilate, or BZ for short. The army learned that BZ inhibits the production of a chemical substance that facilitates the transfer of messages along the nerve endings, thereby disrupting normal perceptual patterns. The effects generally last about three days, although symptoms—headaches, giddiness, disorientation, auditory and visual hallucinations, and manic behavior—have been known to persist for as long as six weeks. "During the period of acute effects," noted an army doctor, "the person is completely out of touch with his environment."

Dr. Van Sim, who served as chief of the Clinical Research Division at Edgewood, made it a practice to try all new chemicals himself before testing them on volunteers. Sim said he sampled LSD "on several occasions." Did he enjoy getting high, or were his acid trips simply a patriotic duty? "It's not a matter of compulsiveness or wanting to be the first to try a material," Sim stated. "With my experience I am often able to change the design of future experiments. . . . This allows more comprehensive tests to be conducted later, with maximum effective usefulness of inexperienced volunteers. I'm trying to defeat the compound, and if I can, we don't have to drag out the tests at the expense of a lot of time and money."

With BZ Dr. Sim seems to have met his match. "It zonked me for three days. I kept falling down and the people at the lab assigned someone to follow me around with a mattress. I woke up from it after three days without a bruise." For his efforts Sim received the Decoration for Exceptional Civilian Service and was cited for ex-

posing himself to dangerous drugs "at the risk of grave personal injury."

According to Dr. Solomon Snyder, a leading psychopharmacologist at Johns Hopkins University, which conducted drug research for the Chemical Corps, "The army's testing of LSD was just a sideshow compared to its use of BZ." Clinical studies with EA-2277 (the code number for BZ) were initiated at Edgewood Arsenal in 1959 and continued until 1975. During this period an estimated twenty-eight hundred soldiers were exposed to the superhallucinogen. A number of military personnel have since come forward claiming that they were never the same after their encounter with BZ. Robert Bowen, a former air force enlisted man, felt disoriented for several weeks after his exposure. Bowen said the drug produced a temporary feeling of insanity but that he reacted less severely than other test subjects. One paratrooper lost all muscle control for a time and later seemed totally divorced from reality. "The last time I saw him," said Bowen, "he was taking a shower in his uniform and smoking a cigar."\*

After extensive clinical testing at Edgewood Arsenal, the army concluded that BZ was better suited than LSD as a chemical warfare agent for a number of reasons. While acid could knock a person "off his rocker," to use Chemical Corps jargon, BZ would also put him "on the floor" (render him physically immobile). This unique combination—both "off the rocker" and "on the floor"—was exactly what the army sought from an incapacitant. Moreover, BZ was cheaper to produce, more reliable, and packed a stronger punch than LSD. Most important, BZ could be dispersed as an aerosol mist that would float with the wind across city or battlefield. Some advantage was also found in the fact that test subjects lapsed into a state of "semi-quiet delirium" and had no memory of their BZ experience.

This was not to belittle lysergic acid. Although LSD never found a place in the army's arsenal, the drug undoubtedly left its mark on the military mind. Once again LSD seems to have acted primarily as a catalyst. Before acid touched the fancy of army strategists, Creasy's vision of a new kind of warfare was merely a pipe dream. With LSD it suddenly became a real possibility.

\*Pentagon spokespeople insist that the potential hazards of such experimentation were "supposed" to be fully explained to all volunteers. But as Dr. Snyder noted, nobody "can tell you for sure BZ won't have a long-lasting effect. With an initial effect of eighty hours compared to eight for LSD you would have to worry more about its long-lasting or recurrent effects."

During the early 1960s the CIA and the military began to phase out their in-house acid tests in favor of more powerful chemicals such as BZ, which became the army's standard incapacitating agent. By this time the superhallucinogen was ready for deployment in a grenade, a 750-pound cluster bomb, and at least one other large-scale bomb. In addition the army tested a number of other advanced BZ munitions, including mortar, artillery, and missile warheads. The superhallucinogen was reportedly employed by American troops as a counterinsurgency weapon in Vietnam, and according to CIA documents there may be contingency plans to use the drug in the event of a major civilian insurrection. As Creasy warned shortly after he retired from the Army Chemical Corps, "We will use these things as we very well see fit, when we think it is in the best interest of the US and their allies."

## Psychedelic Pioneers

### THE ORIGINAL CAPTAIN TRIPS

The stout crew-cut figure riding in the Rolls-Royce was a mystery to those who knew him. A spy by profession, he lived a life of intrigue and adventure befitting his chosen career. Born dirt poor in Kentucky, he served with the OSS during the Second World War and went on to make a fortune as a uranium entrepreneur. His prestigious government and business connections read like a Who's Who of the power elite in North America. His name was Captain Alfred M. Hubbard. His friends called him "Cappy," and he was known as the "Johnny Appleseed of LSD."

The blustery, rum-drinking Hubbard is widely credited with being the first person to emphasize LSD's potential as a visionary or transcendental drug. His faith in the LSD revelation was such that he made it his life's mission to turn on as many men and women as possible. "Most people are walking in their sleep," he said. "Turn them around, start them in the opposite direction and they wouldn't even know the difference." But there was a quick way to remedy that—give them a good dose of LSD and "let them see themselves for what they are."

That Hubbard, of all people, should have emerged as the first genuine LSD apostle is all the more curious in light of his longstanding affiliation with the cloak-and-dagger trade. Indeed, he was no run-of-the-mill spook. As a high-level OSS officer, the Captain directed an extremely sensitive covert operation that involved smuggling weapons and war material to Great Britain prior to the attack on Pearl Harbor. In pitch darkness he sailed ships without lights up the coast to Vancouver, where they were refitted and used as destroyers by the British navy. He also flew planes to the border, took them apart, towed the pieces into Canada, and sent them to England. These activities began with the quiet approval of President Roosevelt

### PSYCHEDELIC PIONEERS

nearly a year and a half before the US officially entered the war. To get around the neutrality snag, Hubbard became a Canadian citizen in a mock procedure. While based in Vancouver (where he later settled), he personally handled several million dollars filtered by the OSS through the American consulate to finance a multitude of covert operations in Europe. All this, of course, was highly illegal, and President Truman later issued a special pardon with kudos to the Captain and his men.

Not long after receiving this presidential commendation, Hubbard was introduced to LSD by Dr. Ronald Sandison of Great Britain. During his first acid trip in 1951, he claimed to have witnessed his own conception. "It was the deepest mystical thing I've ever seen," the Captain recounted. "I saw myself as a tiny mite in a big swamp with a spark of intelligence. I saw my mother and father having intercourse. It was all clear."

Hubbard, then forty-nine years old, eagerly sought out others familiar with hallucinogenic drugs. He contacted Dr. Humphry Osmond, a young British psychiatrist who was working with LSD and mescaline at Weyburn Hospital in Saskatchewan, Canada. Like most other researchers in the field, Osmond was primarily interested in psychosis and mental illness. In 1952 he shocked the medical world by drawing attention to the structural similarity between the mescaline and adrenaline molecules, implying that schizophrenia might be a form of self-intoxication caused by the body mistakenly producing its own hallucinogenic compounds. Osmond noted that mescaline enabled a normal person to see the world through the eyes of a schizophrenic, and he suggested that the drug be used as a tool for training doctors, nurses, and other hospital personnel to understand their patients from a more intimate perspective.

Osmond's research attracted widespread attention within scientific circles. The CIA, ever intent on knowing the latest facts as early as possible, quickly sent informants to find out what was happening at Weyburn Hospital. Unbeknownst to Osmond and his cohorts, throughout the next decade they were contacted on repeated occasions by Agency personnel. Indeed, it was impossible for an LSD researcher not to rub shoulders with the espionage establishment, for the CIA was monitoring the entire scene.\*

Osmond's reports also caught the eye of Aldous Huxley, the em-

\*Osmond left Canada in 1963 and joined a group of researchers at the Princeton Neuropsychiatric Institute. There he worked closely with Dr. Bernard Aaronson,

inent British novelist who for years had been preoccupied with the specter of drug-induced thought control. In 1931 Huxley wrote *Brave New World*, a futuristic vision of a totalitarian society in which the World Controllers chemically coerced the population into loving its servitude. While Huxley grappled with the question of human freedom under pharmacological attack, he also recognized that certain drugs, particularly the hallucinogens, produced radical changes in consciousness that could have a profound and beneficial effect. Upon learning of Osmond's work, he decided to offer himself as a guinea pig.

Huxley seemed like the perfect subject. A learned man steeped in many disciplines, he was also gifted with a writer's eloquence. Even if the drug confounded him, it would not tongue-tie him, for he was a glorious talker. But Osmond was still a bit apprehensive. "I did not relish the possibility, however remote, of being the man who drove Aldous Huxley mad," he explained. His worries proved to be unfounded.

In May 1953, less than a month after the CIA initiated Operation MK-ULTRA, Huxley tried mescaline for the first time at his home in Hollywood Hills, California, under Osmond's supervision. "It was," according to Huxley, "without question the most extraordinary and significant experience this side of the Beatific Vision." Moreover, "it opens up a host of philosophical problems, throws intense light and raises all manner of questions in the field of aesthetics, religion, theory of knowledge."

Huxley described his mescaline adventure in his famous essay *The Doors of Perception* (which took its title from the works of William Blake, the eighteenth-century British poet and visionary artist). With this book Huxley unabashedly declared himself a propagandist for hallucinogenic drugs, and for the first time a large seg-

whose studies in hypnosis and altered states of consciousness were funded by the CIA through the Society for the Study of Human Ecology. Osmond and Aaronson later coauthored a popular anthology called *Psychedelics*. Unlike Aaronson, who was unaware of the CIA's interest in his work, Dr. Carl Pfeiffer, another Princeton researcher, had close ties with the CIA. As one of Pfeiffer's associates put it, "Princeton was crawling with agents. They came courting everyone. It was obvious. They would give us whatever we wanted.... We realized we were being recruited, but at that time we were flattered that such a prestigious government agency was interested in us." A little too interested, perhaps, a number of scientists soon discovered that their mail was being opened and read by government agents.

ment of the educated public became aware of the existence of these substances. Not surprisingly, the treatise created a storm in literary circles. Some hailed it as a major intellectual statement, others dismissed it as pure quackery. Few critics realized that the book would have such an enormous impact in years to come.

In *The Doors of Perception* Huxley elaborated on Henri Bergson's theory that the brain and the nervous system are not the source of the cognitive process but rather a screening mechanism or "reducing valve" that transmits but a tiny fraction of "the Mind-at-Large," yielding only the kind of information necessary for everyday matters of survival. If this screening mechanism was temporarily suspended, if the doors of perception were suddenly thrust open by a chemical such as mescaline or LSD, then the world would appear in an entirely new light. When he looked at a small vase of flowers, the mescalized Huxley saw "what Adam had seen on the morning of creation—the miracle, moment by moment, of naked existence... flowers shining with their own inner light and all but quivering under the pressure of the significance with which they were charged.... Words like 'grace' and 'transfiguration' came to my mind."

Huxley obviously was not undergoing an "imitation psychosis." On the contrary, he contended that the chemical mind-changers, when administered in the right kind of situation, could lead to a full-blown mystical experience. He went so far as to predict that a religious revival would "come about as the result of biochemical discoveries that will make it possible for large numbers of men and women to achieve a radical self-transcendence and a deeper understanding of the nature of things."

Huxley recognized that the perceptions afforded by hallucinogens bore a striking similarity to experiences achieved without the use of drugs, either spontaneously or through various spiritual exercises. His writings reflected more than a passing interest in nonchemical methods of altering consciousness, such as hypnosis, sensory deprivation, prolonged sleeplessness, fasting—techniques closely scrutinized by the CIA as well, but for vastly different reasons. Whereas the CIA sought to impose an altered state on its victims in order to control them, Huxley's explorations were self-directed and designed to expand consciousness. He was well aware of the potential dangers of behavior modification techniques and constantly warned of their abuse. Thus it is ironic that he unknowingly consorted with a num-

ber of scientists who were engaged in mind control research for the CIA and the US military.\*

While writing *Heaven and Hell* (the sequel to *The Doors of Perception*) in 1955, Huxley had his second mescaline experience, this time in the company of Captain Al Hubbard. They were joined by philosopher Gerald Heard, a close friend of Huxley's. "Your nice Captain tried a new experiment—group mescalization," Huxley wrote to Osmond. "Since I was in a group, the experience had a human content, which the earlier, solitary experience, with its Other Worldly quality and its intensification of aesthetic experience, did not possess.... it was a transcendental experience within this world and with human references."

Later that same year, with the Captain again acting as a guide, Huxley took his first dose of LSD. Although he consumed only a tiny amount, the experience was highly significant. "What came through the closed door," he stated, "was the realization—not the knowledge, for this wasn't verbal or abstract—but the direct, total awareness, from the inside, so to say, of Love as the primary and fundamental cosmic fact. These words, of course, have a kind of indecency and must necessarily ring false, seem like twaddle. But the fact remains.... I was this fact; or perhaps it would be more accurate to say that this fact occupied the place where I had been."

Huxley and his LSD mentor were a most improbable duo. The coarse, uneducated Captain lacked elegance and restraint ("I'm just a born son of a bitch!" he bellowed), while the tall, slender novelist epitomized the genteel qualities of the British intellectual. Yet the two men were evidently quite taken by each other. Huxley spoke admiringly of "the good Captain" whose uranium exploits served "as a passport into the most exalted spheres of government, business, and ecclesiastical polity." In a letter to Osmond he commented, "What Babes in the Wood we literary gents and professional men are! The great World occasionally requires your services, is mildly

\*In his letters Huxley mentioned "my friend Dr. J. West," a reference to Jolly West, who conducted LSD studies for the CIA. At one point, while West was engaged in MK-ULTRA research, Huxley suggested that he hypnotize his subjects prior to administering LSD in order to give them "post-hypnotic suggestions aimed at orienting the drug-induced experience in some desired direction." Needless to say, the CIA was intrigued by this idea. Huxley also lectured on parapsychology at Duke University, where J. B. Rhine (with whom Huxley communicated) was engaged in ESP studies for the CIA and the army.

amused by mine; but its full attention and deference are paid to Uranium and Big Business. So what extraordinary luck that this representative of both these Higher Powers should (a) have become so passionately interested in mescaline and (b) be such a very nice man."

Despite their markedly different styles Huxley and Hubbard shared a unique appreciation of the revelatory aspect of hallucinogenic drugs. It was Hubbard who originally suggested that an LSD-induced mystical experience might harbor unexplored therapeutic potential. He administered large doses of acid to gravely ill alcoholics with the hope that the ensuing experience would lead to a drastic and permanent change in the way they viewed themselves and the world. (According to Bill Wilson, the founder of Alcoholics Anonymous, the most important factor in recovery for alcoholics is "a deep and genuine religious experience.") Once the individual's rigidified notion of himself had been shattered, "extensive emotional re-education" was much more likely. At this point the Captain took over. By using religious symbols to trigger psychic responses, he attempted to assist the patient in forming a new and healthier frame of reference that would carry over after the drug wore off. Hubbard found that everyone who went through this process seemed to benefit from it. A number of former alcoholics described their recovery as nothing short of "miraculous." Buoyed by these results, the Captain proceeded to establish LSD treatment centers at three major hospitals in Canada, most notably Hollywood Hospital in Vancouver, where he resided.

Dr. Humphry Osmond was also working with alcoholics in Saskatchewan, but initially he approached the problem from a different vantage point. Osmond noted that some alcoholics decided to give up the bottle only after they "hit bottom" and suffered the withdrawal symptoms of *delirium tremens*. Could a large dose of LSD or mescaline simulate a controlled attack of the DTs? A "model *delirium tremens*," so to speak, would be considerably less dangerous than the real thing, which normally occurs after years of heavy drinking and often results in death. Osmond's hypothesis was still rooted in the psychotomimetic tradition. But then Hubbard came along and turned the young psychiatrist on to the religious meaning of his "madness mimicking" drug. The Captain showed Osmond how to harness LSD's transcendent potential. Nearly a thousand



hard-core alcoholics received high-dose LSD treatment at Weyburn Hospital, and the rate of recovery was significantly higher than for other forms of therapy—an astounding 50%.\*

Osmond and his coworkers considered LSD the most remarkable drug they had ever come across. They saw no reason to restrict their studies to alcoholics. If LSD changed the way sick people looked at the world, would it not have as powerful an effect on others as well? With this in mind Osmond and Hubbard came up with the idea that LSD could be used to transform the belief systems of world leaders and thereby further the cause of world peace. Although few are willing to disclose the details of these sessions, a close associate of Hubbard's insisted that they "affected the thinking of the political leadership of North America." Those said to have participated in the LSD sessions include a prime minister, assistants to heads of state, UN representatives, and members of the British parliament. "My job," said Hubbard, "was to sit on the couch next to the psychiatrist and put the people through it, which I did."

Hubbard's influence on the above-ground research scene went far beyond the numerous innovations he introduced: high-dose therapy, group sessions, enhancing the drug effect with strobe lights, and ESP experiments while under the influence of LSD. His impressive standing among business and political leaders in the United States and Canada enabled him to command large supplies of the hallucinogen, which he distributed freely to friends and researchers at considerable personal expense. "Cost me a couple of hundred thousand dollars," he boasted. "I had six thousand bottles of it to begin with." When Dr. Ross MacLean, the medical director at Hollywood Hospital in Vancouver, suggested that they form a partnership and set a price for administering LSD, Hubbard would hear nothing of it. For the Captain had "a mission," as he put it, and making money never entered the picture.

Hubbard promoted his cause with indefatigable zeal, crisscrossing North America and Europe, giving LSD to anyone who would stand still. "People heard about it, and they wanted to try it," he explained.

\*After thirteen years of utilizing this method, Osmond and his colleagues published their findings: "When psychedelic therapy is given to alcoholics, about one-third will remain sober after the therapy is completed and another one-third will be benefited.... Our conclusion is that, properly used, LSD therapy can turn a large number of alcoholics into sober members of society. Even more important, this can be done very quickly and therefore very economically."

During the 1950s and early 1960s he turned on thousands of people from all walks of life—policemen, statesmen, captains of industry, church figures, scientists. "They all thought it was the most marvelous thing," he stated. "And I never saw a psychosis in any one of these cases."

When certain US medical officials complained that Hubbard was not a licensed physician and therefore should not be permitted to administer drugs, the Captain just laughed and bought a doctor's degree from a diploma mill in Kentucky. "Dr." Hubbard had such remarkable credentials that he received special permission from Rome to administer LSD within the context of the Catholic faith. "He had kind of an incredible way of getting that sort of thing," said a close associate who claimed to have seen the papers from the Vatican.

Hubbard's converts included the Reverend J. E. Brown, a Catholic priest at the Cathedral of the Holy Rosary in Vancouver. After his initiation into the psychedelic mysteries, Reverend Brown recommended the experience to members of his parish. In a letter to the faithful dated December 8, 1957, he wrote, "We humbly ask Our Heavenly Mother the Virgin Mary, help of all who call upon Her to aid us to know and understand the true qualities of these psychedelics, the full capacities of man's noblest faculties and according to God's laws to use them for the benefit of mankind here and in eternity."

Like a molecule at full boil, the Captain moved about at high speeds in all directions. He traveled around the world in his own plane (he was a registered pilot and master of sea vessels), buying up LSD and stashing it, swapping different drugs, and building an underground supply. "I scattered it as I went along," he recalled. With his leather pouch full of "wampum" he rode the circuit, and those on the receiving end were always grateful. "We waited for him like the little old lady on the prairie waiting for a copy of the Sears Roebuck catalogue," said Dr. Oscar Janiger, a Los Angeles psychiatrist.

Dr. Janiger was part of a small circle of scientists and literary figures in the Los Angeles area who began to use psychedelics at social gatherings in the mid-1950s. In addition to Huxley and Gerald Heard, those who participated in these drug-inspired intellectual discussions included philosopher Alan Watts, deep-sea diver Perry Bivens, and researchers Sidney Cohen, Keith Ditman, and Arthur Chandler. This informal group was the first to use LSD socially

rather than clinically. Captain Al Hubbard, the wandering shaman who visited southern California on a regular basis, supplied the group with various chemicals.

"Something had to be done and I tried to do it," Hubbard explained. He was, in his own words, "a catalytic agent" who had a "special, chosen role." While this is certainly an accurate appraisal, he was also another kind of agent—an intelligence agent—which raises some intriguing questions about what he was really up to.

After his legendary exploits with the OSS, the Captain continued to serve as an undercover operative for various agencies within the US government. He had many contacts with the FBI, for example, and he claimed to be a close friend of J. Edgar Hoover's. "That old bugger was tough, really tough," Hubbard said with admiration. But when he tried to turn on the FBI chief, Hoover stubbornly declined. However, the Captain did manage to give the drug to "some top intelligence men in Washington, always with good results."

During the early 1950s Hubbard was asked to join the CIA, but he refused. "They lied so much, cheated so much. I don't like 'em," he snarled. "They're lousy deceivers, sons of the devils themselves." The Captain's beef with the Agency stemmed in part from his unsuccessful attempt to secure back pay owed to him from his OSS days. "They crooked me," he complained bitterly.

Hubbard was unkindly disposed toward the CIA for other reasons as well. Most important, he didn't approve of what the Agency was doing with his beloved LSD. "The CIA work stinks," he said. "They were misusing it. I tried to tell them how to use it, but even when they were killing people, you couldn't tell them a goddamned thing." (Hubbard was certain that Frank Olson was not the only person who died as a result of the CIA's surprise acid tests.)

"I don't know how Al's Washington affairs were done," Dr. Osmond admitted. "He was one of those naturally brilliant wheeler-dealers." Indeed, Hubbard seemed to have a knack for popping up in the most unpredictable places. He worked for the Treasury Department as a young man during the Capone days, busting moonshiners and gangsters who were smuggling liquor into the US from Canada. Apparently he was able to ingratiate himself with both sides during Prohibition, as he subsequently became deputy chief of security for the Tropicana Hotel in Las Vegas. "Those Mafia men were always interesting to talk to," Hubbard remarked, "but they never smiled."

The Captain also engaged in undercover work for a number of other government agencies, including the Federal Narcotics Bureau and the Food and Drug Administration (at a time when both organizations were assisting the CIA's drug testing programs). During the mid-1960s he was employed by Teledyne, a major defense subcontractor, as "director of human factors research." In this capacity Hubbard served as adviser and consultant to a combined navy and NASA project that involved testing the effects of psychochemical agents on a newly designed "helicopter avionics system." Teledyne worked closely with various government organizations, including the CIA, to apply these techniques to additional areas of military interest.

While Hubbard was not a CIA operative per se, his particular area of expertise—hallucinogenic drugs—brought him into close contact with elements of the espionage community. The CIA must have known what he was up to, since Sandoz and the FDA kept the Agency informed whenever anyone received shipments of LSD. The Captain, of course, was one of their best customers, having purchased large amounts of the drug on different occasions.

In a sense "the mysterious Al" embodies the irony and ambiguity of the LSD story as a whole. As one of his friends put it, "Cappy, was sort of a double agent. He worked for the government, but in his own way he was a rebel." Some call him a "witch doctor," others describe him as "an incurable scoundrel." A most unlikely combination of mystic and redneck, Hubbard above all remains an enigma.

"Al Hubbard was a very strange man," confided a fellow drug researcher, "but he probably knew more about LSD than anyone else in the world." And while his tale has many gaps and fuzzy edges, this much can be established beyond a shadow of a doubt: his enthusiasm for LSD never waned. "Anyone who'll try to tell me that this has all been a big hallucination has got to be out of their mind. ... What I've seen with it has been the truth and nothing but the truth."

And as a parting shot he added, "If you don't think it's amazing, all I've got to say is just go ahead and try it."

### *Healing Acid*

By the late 1950s, according to Robert Bernstein, former assistant surgeon general of the American army, "perhaps by coincidence, LSD

was almost simultaneously recognized by the army as a military threat and by certain segments of our US population as a means for self-fulfillment." What puzzling characteristics does LSD possess that give rise to such disparate and seemingly contradictory points of view? How could the same drug be hailed as an unparalleled avenue to transcendental or visionary experiences and denounced as an agent of psychotic interludes?

Originally researchers viewed LSD solely in terms of its ability to create an experimental toxic psychosis. The LSD experience was synonymous with LSD psychosis—"good trips" were no exception. This frame of reference, uniformly shared by scientists at the outset of the 1950s, was typified by the comment of a CIA agent involved in the MK-ULTRA program: "Tripping and psychosis are one and the same. Tripping can be an awful schizoid feeling. Also there are hebephrenics—happy schizos. Their experience is similar to a good trip."

Within a few years, however, reports with a different message began to circulate from Canada. After meeting Captain Hubbard, a small circle of researchers based in Saskatchewan broke with the psychotomimetic definition and started exploring new directions. Dr. Osmond noticed a significant discrepancy between the usual description of the drug experience as a close encounter with lunacy and the kinds of experiences reported by his patients when they were given LSD for their alcoholic problems. They often spoke of an LSD session as insightful and rewarding. Many subjects invoked superlatives, calling it an experience of great beauty. As the research at Weyburn Hospital progressed, it became apparent to Osmond and his cohorts that most people who took LSD did not become insane.

The terminology used to describe the LSD experience in the scientific literature did not sit well with Osmond. Words like *hallucination* and *psychosis* were loaded; they implied negative states of mind. The psychiatric jargon reflected a pathological orientation, whereas a truly objective science would not impose value judgments on chemicals that produced unusual or altered states of consciousness. Aldous Huxley also felt that the language of pathology was inadequate. He and Osmond agreed that a new word had to be invented to encompass the full range of effects of these drugs.

The two men had been close friends ever since Huxley's initial mescaline experience, and they carried on a lively correspondence. At first Huxley proposed the word *phanerothyme*, which derived

from roots relating to "spirit" or "soul." A letter to Osmond included the following couplet:

*To make this trivial world sublime,  
Take half a Gramme of phanerothyme.*

To which Osmond responded:

*To fathom hell or soar angelic  
Just take a pinch of psychedelic.*

And so it came to pass that the word *psychedelic* was coined. Osmond introduced it to the psychiatric establishment in 1957. Addressing a meeting of the New York Academy of Sciences, he argued that hallucinogenic drugs did "much more" than mimic psychosis, and therefore an appropriate name must "include concepts of enriching the mind and enlarging the vision." He suggested a neutral term to replace *psychotomimetic*, and his choice was certainly vague enough. Literally translated, *psychedelic* means "mind-manifesting," implying that drugs of this category do not produce a predictable sequence of events but bring to the fore whatever is latent within the unconscious. Accordingly Osmond recognized that LSD could be a valuable tool for psychotherapy. This notion represented a marked departure from the military-medical paradigm, which held that every LSD experience was automatically an experimental psychosis.

Dr. Albert Hofmann, the chemist who discovered LSD, thought Osmond's choice appropriate, for it "corresponds better to the effects of these drugs than *hallucinogenic* or *psychotomimetic*." The model psychosis concept was further called into question by published reports demonstrating that in many ways the comparison between naturally occurring and LSD-induced psychosis was facile. During the mid-1950s, researchers John MacDonald and James Galvin pointed out that schizophrenics did not experience the wealth of visual hallucinations common with LSD and mescaline but were prone to auditory aberrations, unlike drug subjects. Oddly enough, true schizophrenics hardly reacted to LSD unless given massive doses.

As the psychotomimetic paradigm began to weaken, the focus shifted toward investigating the therapeutic potential of LSD. Two forms of LSD therapy arose in the 1950s. The "psycholytic" or "mind-loosening" approach utilized low or moderate dosages of LSD as an adjunct to conventional psychoanalysis. Employed in repeated ses-

sions, the drug was said to speed up the process of psychoexploration by reducing the patient's defensiveness and facilitating the recollection of repressed memories and traumatic experiences. Stripped of his censorious attitude, the subject might experience a catharsis in a detached and heightened state of awareness, allowing him to retain his insights after the effects of the chemical subsided. The low-dose technique was practiced primarily in England, where Dr. Ronald Sandison established the first LSD clinic open to the public in 1953. Before long, additional centers specializing in this type of therapy sprang up in Germany, Holland, France, Italy, Czechoslovakia and several Scandinavian countries.

A different approach caught on more quickly in Canada and the United States. Psychedelic therapy, developed by Captain Al Hubbard and popularized by Dr. Humphry Osmond, was geared toward achieving a mystical or conversion experience. The procedure involved high dosages of LSD, precluding any possibility that the patient's ego defenses could withstand psychic dissolution.

According to this therapeutic model, as the drug starts to take effect there is an unfixing of perceptual constants and the subject's habitual reality ties are suspended. It is as though one were suddenly thrust into a Van Gogh canvas; objects ripple and breathe, an onrush of stimuli bombard and penetrate the body. Sensory functions overlap in a manner that might best be described as polymorphously perverse: one can "hear" colors and "see" sounds. The world is felt to be an extension of the flesh. Existence is no longer a riddle to be solved but a mystery to behold.

During the apotheosis of the acid high, the self-concept may be diminished to the point of depersonalization. As poet Octavio Paz describes in *Alternating Current*, "The self disappears, but no other self appears to occupy the empty space it has left. No god but rather the divine. No faith but rather the primordial feeling that sustains all faith, all hope. Peace in the crater of the volcano, the reconciliation of man—what remains of man—with total presence."

This state of consciousness was thought to be conducive to healing deep-rooted psychological wounds. The task of the therapist was to help the patient understand and assimilate the experience in a way that would maximize personal growth. Best results were obtained when the therapist shed his "doctor" status and assumed the role of guide or mentor, intervening only to help the initiate relax

and "go with the flow." To succeed, the therapist had to be well acquainted with the psychedelic terrain; this familiarity could only be gained by taking the drug and learning to direct a positive experience. (Osmond's Golden Rule: "You start with yourself.") It was not uncommon for a guide to take a small amount of LSD during the therapy session to increase his rapport with his patient.

Originally tested on alcoholics in Canada with remarkable results, high-dose therapy was subsequently applied to a wide range of diagnostic categories: juvenile delinquency, narcotics addiction, severe character neurosis, and the like. This approach was particularly effective in treating people who were emotionally blocked; they were able to cut through a lot of psychological red tape, so to speak, and get right to the heart of the matter. Oftentimes those who underwent psychedelic therapy reported dramatic personality changes involving not only the relief of neurotic symptoms but a wholesale revamping of value systems, religious and philosophical beliefs, and basic lifestyle. Numerous patients claimed that a few LSD trips proved more fruitful than years of psychoanalysis—at considerably less expense. In some cases spectacular success was achieved with only one dose of the drug.

LSD was the talk of the town in Hollywood and Beverly Hills in the late 1950s as various movie stars were dosed on the psychiatrist's couch. Participants in such sessions included several of the glamor elite, each capable of generating a flash of publicity. Cary Grant first took LSD under the guidance of Dr. Mortimer Hartmann and then with Dr. Oscar Janiger. His therapy was such a success that he became a zealous missionary for LSD. "All my life," Grant stated, "I've been searching for peace of mind. I'd explored yoga and hypnotism and made several attempts at mysticism. Nothing really seemed to give me what I wanted until this treatment." People from all walks of life echoed Grant's plaudits for the drug, and psychiatrists who practiced LSD therapy were inundated with inquiries.

Beatific, oceanic, redemptive—these words have been used to describe the peak of an LSD trip. But there is another side to it. To be cast about as flotsam in the power draughts of the universe can be a hellish as well as a heavenly ordeal. Both possibilities are rooted in the experience of depersonalization or ego loss. The CIA was not interested in the therapeutic applications of LSD. On the contrary, the men of ARTICHOKE and MK-ULTRA defined the drug as an anxiety-producing agent, and they realized it would be relatively

easy to "break" a person who was exposed to highly stressful stimuli while high on acid. As one CIA document instructed, "[Whatever] reduces integrative capacity may serve to increase the possibility of an individual being overwhelmed by frustrations and conflicts hitherto managed successfully." The powerful ego-shattering effects of LSD were ideally suited for this purpose. CIA and military interrogators proceeded to utilize the drug as an instrument of psychological torture.

That LSD can be used to heal as well as maim underscores an essential point: non-drug factors play an important role in determining the subject's response. LSD has no standard effects that are purely pharmacological in nature; the enormous range of experiences produced by the chemical stems from differences in (1) the character structure and attitudinal predispositions (or "set") of the subject, and (2) the immediate situation (or "setting"). If LSD is given in a relaxed and supportive environment and the subject is coached beforehand, the experience can be intensely gratifying. As Dr. Janiger put it, "LSD favors the prepared mind."

For the unprepared mind, however, LSD can be a nightmare. When the drug is administered in a sterile laboratory under fluorescent lights by white-coated physicians who attach electrodes and nonchalantly warn the subject that he will go crazy for a while, the odds favor a psychotomimetic reaction, or "bummer."

This became apparent to poet Allen Ginsberg when he took LSD for the first time at the Mental Research Institute in Palo Alto, California, in 1959. Ginsberg was already familiar with psychedelic substances, having experimented with peyote on a number of occasions. As yet, however, there was no underground supply of LSD, and it was virtually impossible for layfolk to procure samples of the drug. Thus he was pleased when Gregory Bateson,\* the anthropologist, put him in touch with a team of doctors in Palo Alto. Ginsberg had no way of knowing that one of the researchers associated with the institute, Dr. Charles Savage, had conducted hallucinogenic drug experiments for the US Navy in the early 1950s.

The experiment was conducted in a small room full of medical

\*Formerly a member of the Research and Analysis Branch of the OSS, Bateson was the husband and co-worker of anthropologist Margaret Mead. An exceptional intellect, he was turned on to acid by Dr. Harold Abramson, one of the CIA's chief LSD specialists.

equipment and EEG machines, with no outer windows. Ginsberg was advised that he could listen to whatever music he wanted, so he chose Wagner's *Tristan and Isolde* and a recording of Gertrude Stein. "For some reason," he recalled, "I thought you were supposed to lie down like in a hospital on a psychiatrist's couch and let something slowly engulf you, which is what happened. I lay down and something slowly engulfed me." As he started getting high, Ginsberg was put through a series of psychological tests—word association, Rorschach inkblots, arithmetic problems—which struck him as quite absurd at the time. "What difference does it make?" he kept asking the attendants. While they measured his psychological responses, the poet—having read Huxley—was waiting for God to show up inside his brain.

When it came time for the EEG tests, Ginsberg proposed a rather unusual experiment that had been suggested by his friend William S. Burroughs. He wanted to see what would happen if he looked at a stroboscope blinking in synchronization with his alpha rhythms while he was high on acid. The doctors connected the flicker machine to the EEG apparatus so that the alpha waves emanating from his brain set off the strobe effect. "It was like watching my own inner organism," said Ginsberg. "There was no distinction between inner and outer. Suddenly I got this uncanny sense that I was really no different than all of this mechanical machinery around me. I began thinking that if I let this go on, something awful would happen. I would be absorbed into the electrical network grid of the entire nation. Then I began feeling a slight crackling along the hemispheres of my skull. I felt my soul being sucked out through the light into the wall socket and going out."

Ginsberg had had enough. He asked the doctors to turn the flicker machine off, but the "high anxiety" lingered. The clinical atmosphere of the laboratory made it hard for him to relax. As the trip wore on, he got deeper and deeper into a tangle: "I had the impression that I was an insignificant speck on a giant spider web, and that the spider was slowly coming to get me, and that the spider was God or the Devil—I wasn't sure—but I was the victim. I thought I was trapped in a giant web or network of forces beyond my control that were perhaps experimenting with me or were perhaps from another planet or were from some super-government or cosmic military or science-fiction Big Brother."

## ACID DREAMS

Ginsberg spent the evening at the home of Dr. Joe Adams, the man who supervised the experiment. He retired to his room and tried to describe his first acid trip. While still high, he composed the poem "Lysergic Acid," which begins with the following incantation:

*It is a multiple million eyed monster  
it is hidden in all its elephants and selves  
it hummeth in the electric typewriter  
it is electricity connected to itself, if it hath wires  
it is a vast Spiderweb  
and I am on the last millionth infinite tentacle of  
the spiderweb, a worrier  
lost, separated, a worm, a thought, a self. . .  
I allen Ginsberg a separate consciousness  
I who want to be God . . .*

It might appear that such ordeals amounted to a ravaging of the soul rather than its redemption. But Ginsberg thought otherwise. He and the other poets and artists associated with the beat generation sampled a veritable pharmacopoeia of different drugs in various dosages and combinations, and publicly extolled their virtues. They too viewed psychedelics as "truth drugs," but unlike the CIA they were not attempting to control someone else's mind. Rather, they used these substances to assert their creative autonomy. Most of all, the beats wanted to speak the truth about their lives. While the CIA prowled around in secret and hoarded information, the beats were open and candid about their chemically illumined voyages. Intoxicated states were the keystone of beat literature, and they chronicled their insights in poetry and prose. Occasionally they tripped together in small groups and later compared notes on how best to approach a psychedelic session. The beats were mapping uncharted zones of the human psyche, an effort Ginsberg likened to "being part of a cosmic conspiracy . . . to resurrect a lost art or a lost knowledge or a lost consciousness."

The beats' drug shamanism was bound up with romantic excess. In the midst of the spiritual blackout of the Cold War they searched for a "final fix" that would afford the vision of all visions. Their affinity for psychedelics reflected as much a desire to escape from a world they found unbearable as to tap the hidden realms of the

## PSYCHEDELIC PIONEERS

psyche. Drugs were instrumental in catalyzing their rebellion against the overwhelming conformity of American culture. The beats had nothing but contempt for the strictures of a society anally fixated on success, cleanliness, and material possession. Whatever the mainstream tried to conceal, denigrate, or otherwise purge from experience, the beats flaunted. Their hunger for new sensations led them to seek transcendence through jazz, marijuana, Buddhist meditation, and the frenetic pace of the hip lifestyle.

It was the beats who railed most forcefully against the ghostly reserve of the 1950s. They understood that the problem was largely social in nature, but it was so extreme that the only sensible response was to become antisocial, to retreat into small groups or cabals of like-minded individuals and pursue radical options outside the cultural norm. The beats were pitchmen for another kind of consciousness. They encouraged the youth of America to take their first groping steps toward a psychological freedom from convention that opened the door to all manner of chemical experimentation. The beats bequeathed an inquisitive attitude, a precocious "set" for approaching the drug experience. As cultural expatriates they linked psychedelics to a tiny groundswell of nonconformity that would grow into a mass rebellion during the next decade.

## *Psychosis or Gnosis?*

Therapeutic studies in the 1950s opened up new areas of investigation for a growing number of young psychiatrists. A particularly promising avenue of inquiry involved using LSD as a tool to explore the creative attributes of the mind. Dr. Oscar Janiger (the first person in the US to conduct a clinical investigation of DMT, or dimethyltryptamine, an extremely powerful short-acting psychedelic) noted that many of his patients reported vivid aesthetic perceptions frequently leading to a greater appreciation of the arts. One of his subjects claimed that a single acid trip was equal to "four years in art school" and urged Janiger to give the drug to other artists. This led to an experiment in which one hundred painters drew pictures before, during, and after an LSD experience. Everyone who participated considered their post-LSD creations personally more meaningful. Impressed by these results, Janiger proceeded to administer the psychedelic to various writers, actors, musicians, and film-

makers, including such notables as Anaïs Nin, André Previn, Jack Nicholson, James Coburn, Ivan Tors, and the great stand-up comedian Lord Buckley.\*

While some interesting and highly original works of art have been produced during the acid high, the creative effects of LSD cannot be measured solely in terms of immediate artistic output. Even more important is the enlargement of vision, the acute awareness of vaster potentials that persists long after the drug has worn off. Janiger's subjects frequently commented on the affinity between the drug-induced state and "what they felt might be an essential matrix from which the imaginative process derives." Author William Burroughs, who experimented with hallucinogens on his own, agreed with this assessment: "Under the influence of mescaline I have had the experience of seeing a painting for the first time, and I found later that I could see the painting without using the drug. The same insights into music or the exposure to a powerful consciousness-expanding drug often conveys a permanent increase in the range of experience. Mescaline transports the user to unexplored psychic areas, and he can often find the way back without a chemical guide."

The suggestion that LSD might enhance creativity was vigorously disputed by certain studies purporting to measure the impairment of normal mental functioning during the drugged state. The discrepancy between these studies and the personal testimony of the artists themselves underscored the shortcomings of the scientific *modus operandi*, which relied primarily on performance and aptitude tests and the like. In the end such tests yielded a morass of nebulous and contradictory data that shed little light on the psychological action of psychedelic agents. Dr. Osmond spoke for a growing number of researchers when he wrote, "Our preoccupation with behavior, because it is measurable, has led us to assume that what can be measured must be valuable and vice versa.... An emphasis on the measurable and the reductive has resulted in the limitation of interest by psychiatrists to aspects of experience that fit in with this concept." According to Osmond, the most important features of the LSD experience—the overwhelming beauty, the awe

\*In the mid-1940s Lord Buckley founded a mescaline club called The Church of the Living Swing. A practitioner of yoga who often appeared in public wearing a tuxedo with tennis sneakers, a big white moustache, and a safari hat, Buckley rented a yacht and threw mescaline parties in the San Francisco Bay with live jazz by Ben Webster and Johnny Puleo and the Harmonicats.

and wonder, the existential challenge, the creative and therapeutic insights—would inevitably elude the scientist who viewed them merely as "epiphenomena of 'objective' happenings."

The so-called objectivist approach was inherently flawed not only because it sought to quantify creative experience but also because it ignored the input of the observer, which always influenced the results of an LSD experiment. An acid high was a state of heightened suggestibility and acute sensitivity to environmental cues. The subject's response was therefore largely influenced by the expectations of the person administering the drug. If the scientist viewed the LSD experience as essentially "psychotic," he unwittingly contributed to this type of response, both through implicit suggestion and because he was not equipped to assist the subject in interpreting the altered state of consciousness. Under these circumstances a paranoid response with serious long-range repercussions was not uncommon. Such results, in turn, led to overgeneralization, to the point where the drug was defined as a stress-inducing agent.

The notion that LSD could be used to treat psychological problems seemed downright absurd to certain scientists in light of the drug's long-standing identification with the *simulation* of mental illness. Those who operated within the psychotomimetic framework did not recognize that extrapharmacological variables—inadequate preparation, negative expectations, poorly managed sessions—were responsible for the adverse effects mistakenly attributed to the specific action of the drug. (According to the model psychosis scenario, there was really nothing to manage; just dose them and take the reaction.) They were appalled to learn that some psychotherapists were actually taking LSD with their patients. This was strictly taboo to the behaviorist, who refused to experiment on himself on the grounds that it would impair his ability to remain completely objective.

The chasm between the two schools of thought was not due to a communications breakdown or a lack of familiarity with the drug. The different methodologies were rooted in conflicting ideological frameworks. Behaviorism was still anchored in the materialist world view formalized by Newton; the "psychedelic" evidence was congruent with the revolutionary implications of relativity theory and quantum mechanics. The belief in scientific objectivity had been shaken in 1927 when physicist Werner Heisenberg enunciated the "uncertainty principle," which held that in subatomic physics the

observer inevitably influenced the movement of the particles being observed. LSD research and many other types of studies suggested that an uncertainty principle of sorts was operative in psychology as well, in that the results were conditioned by the investigator's preconceptions. The "pure" observer was an illusion, and those who thought they could conduct an experiment without "contaminating" the results were deceiving themselves.

Aldous Huxley felt that the "scientific" approach was utterly hopeless. "Those idiots want to be Pavlovians," he said, "[but] Pavlov never saw an animal in its natural state, only under duress. The 'scientific' LSD boys do the same with their subjects. No wonder they report psychotics." The practitioners of psychedelic therapy, on the other hand, were cognizant of the complex interaction between set and setting, and they worked to facilitate insight and personal growth.

Of course, even the best set and setting could not always guarantee an easy, pleasant, or uncomplicated experience. The goal of a therapeutic session was not to have a "good trip" per se but to work through emotional, creative or intellectual blockages and further the process of self-discovery—an ordeal that could be very painful at times. Certain schools of psychiatry—R. D. Laing, for example—recognized that "freaking out" might actually herald a positive breakthrough to a new level of awareness if properly integrated by the patient.\* The idea that a turbulent acid trip could have therapeutic consequences reflected an ancient understanding of the human psyche and the principles governing the healing process.

The "perilous passing" through the chaotic realm of the bummer was structured into the drug rituals of primitive societies as part of the sacred "vision-quest." The key figure in the hallucinogenic drama was the shaman, the witch doctor, the medicine man (or woman, as was often the case) who gave song to dreams and provided spiritual access for the entire tribe. A connoisseur of the drug-induced trance state, the shaman derived his or her strength from confronting the

\*Whereas most psychedelic therapists were prepared to assist their patients should difficulties arise, Dr. Salvador Roquet, a maverick Mexican psychiatrist, consciously sought to induce a bummer as part of his "treatment." Roquet utilized various hallucinogenic drugs, including LSD, psilocybin, mescaline, datura, and ketamine. Known as "a master of bad trips" and "a pusher of death," Roquet subjected people to adverse stimuli while they were drugged; Jewish subjects, for example, were given acid and then forced to listen to a recording of Hitler's speeches.

terror of ego death—the quintessential trial by fire that was seen as a necessary prelude to an ecstatic rebirth, the resurrection of a new personality.

The drug experience informed every aspect of life in traditional cultures. With the aid of hallucinogenic plants the witch doctor cured the sick, communicated with the spirits of the dead, foretold the future, and initiated young people in coming-of-age rites. The use of mind-altering substances within an ethos of combat and aggression was also common in primitive communities. Whatever the specific purpose, the shaman always employed the hallucinogen in a ceremonial context. An elaborate set of rituals governed every step of the process, from gathering the roots and herbs to preparing and administering the brew. The power plants were often poisonous and could be fatal if not prepared properly. Only a ritually clean person who had endured weeks or months of prayer and fasting, often in isolation from the community, was deemed ready to ingest these substances. Because of the shaman's familiarity with states of consciousness induced by hallucinogenic drugs, he or she was considered qualified to pilot others through the experience.

"Primitive man," wrote Huxley in 1931, "explored the pharmacological avenues of escape from the world with astounding thoroughness. Our ancestors left almost no natural stimulant, or hallucinant, or stupeficient, undiscovered." To Huxley, the urge for transcendence and visionary experience was nothing less than a biological imperative. "Always and everywhere," he asserted, "human beings have felt the radical inadequacy of being their insulated selves and not something else, something wider, something in the Wordsworthian phrase, 'far more deeply interfused.' . . . I live, yet not I, but wine or opium or peyotyl or hashish liveth in me. To go beyond the insulated self is such a liberation that, even when self-transcendence is through nausea into frenzy, through cramps into hallucinations and coma, the drug-induced experience has been regarded by primitives and even by the highly civilized as intrinsically divine."

The use of mind-altering drugs as religious sacraments was not restricted to a particular time and place but characterized nearly every society on the planet (with the possible exception of certain Eskimo and Polynesian communities). For the Aztecs there was peyote and ololiuqui, a small lentil-like seed containing lysergic acid; the Aborigines of Australia chewed pituri, a desert shrub; the



natives of the Upper Amazon had yagé, the telepathic vine. Those who floated into a sacred space after ingesting these substances often projected ecstatic qualities onto the plants themselves. Certain scholars believe that the fabled Soma of the ancient Vedic religion in northern India was actually the fly agaric mushroom, and there is strong evidence that ergot, from which LSD is derived, was the mysterious *kykeon* used for over two thousand years by the ancient Greeks in the annual Eleusinian Mysteries.\*

When Christianity was adopted as the official creed of the Roman Empire in the fourth century, all other religions, including the Mysteries, were banished. Christian propagandists called for the destruction of the pagan drug cults that had spread throughout Europe after the Roman conquest. Like its shamanistic forebears, paganism was rooted in rapture rather than faith or doctrine; its mode of expression was myth and ritual, and those who carried on the forbidden traditions possessed a vast storehouse of knowledge about herbs and special medicaments. The witches of the Middle Ages concocted brews with various hallucinogenic compounds—belladonna, thorn apple, henbane and bufotenine (derived from the sweat gland of the toad *Bufo marinus*)—and when the moon was full they flew off on their imaginary broomsticks to commune with spirits.†

The ruthless suppression of European witchcraft by the Holy Inquisition coincided with attempts to stamp out indigenous drug use

\*In *The Road to Eleusis* authors Albert Hofmann, Gordon Wasson, and Carl Ruck present convincing evidence that the Eleusinian Mysteries, the oldest religion in the West, centered around a mass tripping ritual. For two millennia pilgrims journeyed from all over the world to take part in the Mysteries and drink of the sacred *kykeon*—a holy brew laced with ergot. The setting for the Mysteries was carefully devised to maximize the transcendental aura. After drinking the spiritual potion, the initiates would listen to ceremonial music and ponder the texts of Demeter, goddess of grain (symbolizing renewal, spring, fecundity, and possibly the ergot fungus, which grows on barley, from which the *kykeon* was made). At the climax of the initiation a beam of sunlight would flood the chamber. This vision was said to be the culminating experience of a lifetime, man's redemption from death. As the poet Pindar wrote, "Happy is he who, having seen these rites, goes below the hollow earth, for he knows the end of life and its god-sent beginning." Plato, Aristotle and Sophocles were among those who participated in this secret ritual.

†While the passing of time and the destruction of documentary evidence by the church has concealed the full scope of the ritual use of hallucinogens in Europe, scattered references suggest that a widespread psychedelic underground existed during the Middle Ages. Walter Map, a twelfth-century ecclesiastic, told of certain heretical sects that offered innocent people a "heavenly food" proclaiming, "Often you will see...angelic visions, in which sustained by their consolation, you can visit whatsoever place you wish without delay or difficulties."

among the colonized natives of the New World. The Spanish outlawed peyote and coca leaves in the Americas, and the British later tried to banish kava use in Tahiti. Such edicts were part of an imperialist effort to impose a new social order that stigmatized the psychedelic experience as a form of madness or possession by evil spirits. It wasn't until the late eighteenth century that industrial civilization produced its own "devil's advocate," which spoke in a passionate and lyrical voice. The romantic rebellion signified "a return of the repressed" as drugs were embraced by the visionary poets and artists who lived as outcasts in their own society. Laudanum, a tincture of opium, catalyzed the literary talents of Coleridge, Poe, Swinburne, De Quincey, and Elizabeth Barrett Browning, while the best-known French writers, including Baudelaire, de Nerval, and Victor Hugo, gathered at Le Club des Haschischins, a protoboheemian enclave in Paris founded by Théophile Gautier in 1844.\*

For the visionary poets modern society was the bummer, and they often viewed the drug experience as a tortured means to a fuller existence, to a life more innately human. It was with the hope of alleviating his own tortured mental condition that Antonin Artaud made an intercontinental trek in the 1930s to participate in the peyote ritual of the Tarahumara Indians in the Mexican highlands. Artaud did not undertake such a risky journey as a tourist or an anthropologist but as someone who wished to be healed, as a spiritual exile seeking to regain "a Truth which the world of Europe is losing." The desperate Frenchman experienced a monumental bummer—"the cataclysm which was my body...this dislocated assemblage, this piece of damaged geology." Yet somehow, despite the nightmare visions and the somatic discomfort, he managed to scratch out a perception of the Infinite. "Once one has experienced a visionary state of mind," Artaud wrote in *The Peyote Dance*, "one can no longer confuse the lie with truth. One has seen where one comes from and who one is, and one no longer doubts what one is. There is no emotion or external influence that can divert one from this reality."

Like Artaud and the romantic poets, some psychiatrists who used LSD in a therapeutic context believed that a disruptive experience

\*Gautier was turned on to hashish by J. J. Moreau de Tours, a French doctor who attempted to correlate the effects of cannabis with the manifestations of mental illness. Moreau, the first person to put forward the notion of a drug-induced "model psychosis," supplied hashish to the literary giants who frequented Gautier's club.

could have a curative effect if allowed to proceed to resolution. Many other researchers, however, dismissed transcendental insight as either "happy psychosis" or a lot of nonsense. The knee-jerk reaction on the part of the psychotomimetic stalwarts was indicative of a deeply ingrained prejudice against certain varieties of experience. In advanced industrial societies "paranormal" states of consciousness are readily disparaged as "abnormal" or pathological. Such attitudes, cultural as much as professional, played a crucial role in circumscribing the horizon of scientific investigation into hallucinogenic agents.

Thomas Kuhn, in *The Structure of Scientific Revolutions*, argues that the scientist's overriding need to make sense of his data compels him to mold it to the prevailing scientific paradigm, which defines "legitimate" problems and methods for a given historical era. There are moments, however, when the orthodox framework cannot bear the weight of irrefutable new evidence. A period of controversy ensues until a new paradigm emerges to encompass and transcend the previous ideology. During this transition period scientists who buck the status quo are often castigated as eccentric, irresponsible, and unscientific. Galileo, for example, was branded a lunatic and a heretic for suggesting that the earth revolved around the sun. In a similar fashion the psychedelic evidence challenged the entrenched world view of the psychiatric establishment, and proponents of LSD therapy were summarily denounced and ridiculed by those who were fixated on the model psychosis concept.

Dr. Humphry Osmond defended his position by emphasizing that the pathological bias, from a historical perspective, was clearly the exception and not the rule. In many cultures that were less sophisticated technologically but more so ecologically, the drug-induced trance state was revered as an enlargement of reality rather than a deviation from it. Osmond pleaded with his fellow researchers not to dismiss something that struck them as unusual or different simply because "it transcends those fashionable ruts of thinking that we dignify by calling logic and reason." He urged psychiatrists to change their outlook in order to realize the full potential of psychedelics.

While many young doctors rallied to his call, there were others, including certain influential scientists working under CIA and military contract, who refused to budge from the psychotomimetic posture. The debate between the two camps came to a head at the first

international conference on LSD therapy in 1959. Sponsored by the Josiah Macy, Jr. Foundation (at times a CIA conduit), it was perhaps the most important gathering of LSD researchers to date for it enabled workers in the field to compare notes and analyze their findings as a group. The conference was chaired by Dr. Paul Hoch, a prominent and well-connected scientist who was, in the words of Sanford Unger, "an opinion leader." Hoch was also a longtime CIA consultant and a contract employee of the US Army Chemical Corps. Dr. Harold Abramson, a veteran of the CIA's MK-ULTRA program, served as recording secretary, and a number of other scientists who rented their services to the CIA and the military were featured speakers. Hoch and Abramson did not just stumble into their respective roles at this event. Their status as dominant figures in aboveground LSD research suggests the extent to which covert interests influenced the course of the debate over hallucinogenic substances and their effects.

Despite ample evidence to the contrary Dr. Hoch stubbornly insisted that LSD and mescaline were "essentially anxiety-producing drugs." He asserted that they were "not especially useful" in a therapeutic context because they disorganize the psychic integration of a person. LSD experiments, according to the chairman, could not be compared with "results obtained in patients where tranquilizing drugs were used to reduce, instead of stir up the patient's symptoms."

Dr. Hoch was incredulous when other participants in the Macy conference reported that their patients found the LSD session beneficial and personally rewarding and were usually eager to take the drug again. "In my experience," Hoch announced, "no patient asks for it again." His experience included the following mescaline experiment conducted on a thirty-six-year-old male diagnosed as a "pseudoneurotic schizophrenic."

He had some visual hallucinations. He saw dragons and tigers coming to eat him and reacted to these hallucinations with marked anxiety. He also had some illusionary distortions of the objects in the room. The emotional changes were apprehension and fear—at times mounting to panic, persecutory misinterpretation of the environment, fear of death, intense irritability, suspiciousness, perplexity, and feelings of depersonalization. He verbalized the feelings of depersonalization as "floating out of space," seemed "between this life and the next," and had the feeling of being born. The paranoid content concerned essentially why the doctors were

# ACID DREAMS

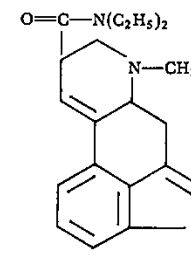
taking notes and fear that he would be attacked by them. He also expressed an ecstatic grandiose trend of having the feeling that he was God in heaven and then, however, had the feeling of being in hell.... The mental picture was that of a typical schizophrenic psychosis while the drug influence lasted.

As an afterword, Hoch noted, "This patient received transorbital lobotomy and showed temporarily a marked improvement in all his symptoms, losing most of his tension and anxiety. Postoperatively he was again placed under mescaline. Basically the same manifestations were elicited as prior to the operation with the exception that quantitatively the symptoms were not as marked as before."

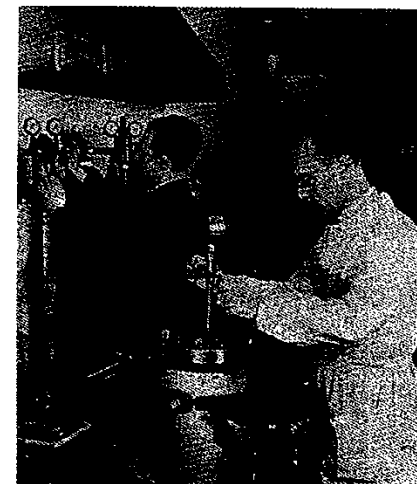
Dr. Hoch also tried electroshock treatment on patients who had been given mescaline. "It did not influence the clinical symptoms at all," he reported matter-of-factly. "The patients continued to behave in the same way as prior to electroshock treatment." On the basis of these tests Hoch concluded that electroshock "has no influence on mescaline-produced mental states." He might have revised his "objective" assessment if he had taken the drug himself and had one of his assistants apply the volts while he tripped the lights fantastic. But those who secretly funded his research required only that he dish it out to mental patients and prisoners.

"An interesting theory can always outrun a set of facts," declared psychologist Audrey Holliday. She found the whole psychotomimetic approach guilty of using "unscientific and intemperate terms." Yet the semantic inaccuracies were still being bandied about even when most researchers had agreed that LSD did not really mimic endogenous schizophrenia.

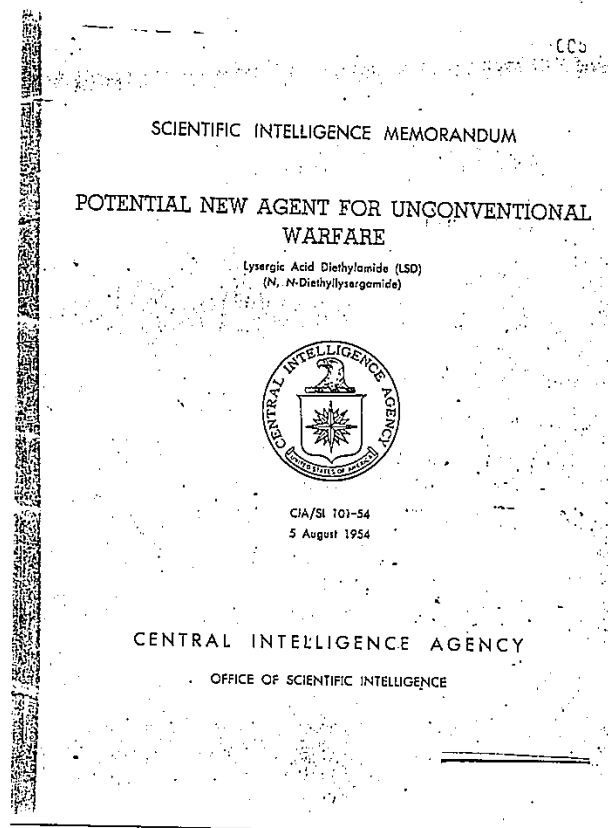
Despite widespread acknowledgment that the model psychosis concept had outlived its usefulness, the psychiatric orientation articulated by those of Dr. Hoch's persuasion prevailed in the end. When it came time to lay down their hand, the medical establishment and the media both "mimicked" the line that for years had been secretly promoted by the CIA and the military—that hallucinogenic drugs were extremely dangerous because they drove people insane, and all this talk about creativity and personal growth was just a lot of hocus pocus. This perception of LSD governed the major policy decisions enacted by the FDA and the drug control apparatus in the years ahead.



The molecular structure of d-lysergic diethylamide.



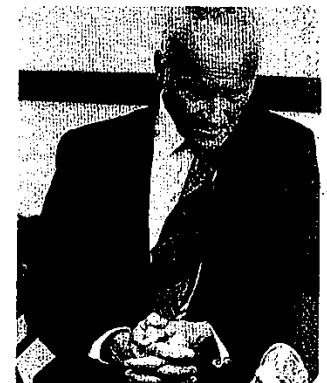
Dr. Albert Hofmann, the grandfather of the acid generation in his laboratory at Sandoz Pharmaceuticals in Basel, Switzerland. (Sandoz, AG, Basel)



Cover page of a once-classified CIA memorandum on LSD-25.



Richard Helms, CIA Director from 1967-1973, described LSD as "dynamite." (AP/Wide World Photos)



Dr. Sidney Gottlieb, chief of the CIA's Technical Service Staff, who ran the super-secret MK-ULTRA program. (George Tames/The New York Times)



George Hunter White, high-ranking narcotics official, shown in December 1952, when he began administering LSD to unwitting American citizens at the behest of the CIA. "It was fun, fun, fun," White said. "Where else could a red-blooded American lie, kill, cheat, and rape, with the sanction of the all-highest?" (New York Daily News Photo)



Major General William Creasy, chief officer of the US Army's Chemical Corps in the 1950's, preached a new military gospel of "war without death." During Congressional testimony Creasy called for the testing of hallucinogenic gases on subways in American cities. (The New York Times)



Captain Alfred M. Hubbard, the spy who became the first Johnny Appleseed of LSD. "If you don't think it's amazing," said Hubbard, "just go ahead and try it." (Courtesy of Bill Darling)



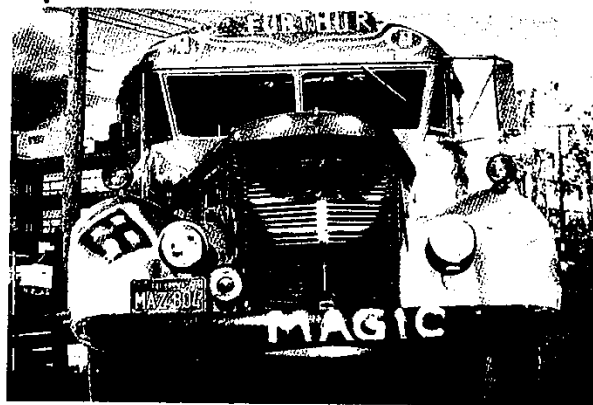
Ralph Metzner (left) and Timothy Leary (right) in front of the palatial Millbrook estate. (New York Daily News Photo)



Aldous Huxley, author of *Doors of Perception*, the seminal psychedelic manifesto, and his wife, Laura. (AP/Wide World Photos)



William Mellon Hitchcock (right), millionaire owner of Millbrook taking part in a Tai Chi session with Leary (left) at the mansion. (Eugene Anthony)



The Merry Pranksters traveled across the US in a psychedelic bus in the summer of 1964. (Eugene Anthony)



Thousands "freaked freely" at the three-day Trips Festival in San Francisco, January 1966. (Eugene Anthony)



Ken Kesey first turned on to LSD through a government-funded drug program at Stanford. (UPI/ Bettmann Newsphotos)

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WORLD TRIPS



Allen Ginsberg, poet laureate of the acid subculture, shown testifying at Senate hearings on drug abuse. Ginsberg stated that there had been a "journalistic exaggeration" of the dangers of LSD. (AP/ Wide World Photos)



Poster announcing the first human be-in.



25,000 gathered in Golden Gate Park for the first human be-in January 1967. (Eugene Anthony)



Digger street theater in Haight-Ashbury. (Eugene Anthony)



Slogan adopted by the flower children.



Anti-war demonstrators at the Pentagon, October 1967. (Paul Conklin, Time)

Yippies Abbie Hoffman and Jerry Rubin burning money at the New York Stock Exchange. (AP/Wide World Photos)



Undercover police agent posing as a hippie radical. (AP/Wide World Photos)



## Under The Mushroom, Over The Rainbow

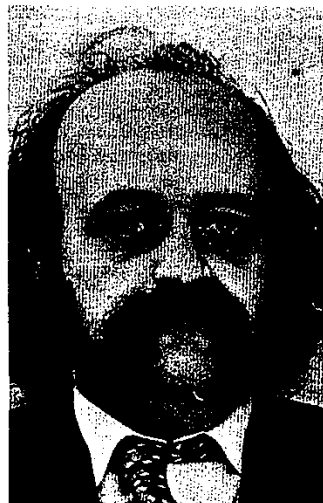
### MANNA FROM HARVARD

Henry Luce, president of Time-Life, was a busy man during the Cold War. As the preeminent voice of Eisenhower, Dulles, and Pax Americana, he encouraged his correspondents to collaborate with the CIA, and his publishing empire served as a longtime propaganda asset for the Agency. But Luce managed to find the time to experiment with LSD—not for medical reasons, but simply to experience the drug and glean whatever pleasures and insights it might afford. An avid fan of psychedelics, he turned on a half-dozen times in the late 1950s and early 1960s under the supervision of Dr. Sidney Cohen. On one occasion the media magnate claimed he talked to God on the golf course and found that the Old Boy was pretty much on top of things. During another trip the tone-deaf publisher is said to have heard music so enchanting that he walked into a cactus garden and began conducting a phantom orchestra.

Dr. Cohen, attached professionally to UCLA and the Veterans Hospital in Los Angeles, also turned on Henry's wife, Clare Boothe Luce, and a number of other influential Americans. "Oh, sure, we all took acid. It was a creative group—my husband and I and Huxley and [Christopher] Isherwood," recalled Mrs. Luce, who was, by all accounts, the *grande dame* of postwar American politics. (More recently she served as a member of President Reagan's Foreign Intelligence Advisory Board, which oversees covert operations conducted by the CIA.) LSD was fine by Mrs. Luce as long as it remained strictly a drug for the doctors and their friends in the ruling class. But she didn't like the idea that others might also want to partake of the experience. "We wouldn't want everyone doing too much of a good thing," she explained.



Woodstock rock festival, August 1969.  
(New York Daily News Photo)



Ronald Stark manufactured 50 million hits of black market LSD in the late 1960's and early 1970's. He was later exposed as a CIA informant by Italian authorities.  
(Ansa)

By this time, however, psychedelic drugs already had a certain notoriety, largely due to favorable reports in Luce's publishing outlets. In May 1957 *Life* magazine ran a story on the discovery of the "magic mushroom" as part of its Great Adventure series. Written by R. Gordon Wasson, the seventeen-page spread, complete with color photos, was laudatory in every way. Wasson, a vice-president of J. P. Morgan and Company, pursued a lifelong interest in mushrooms as a personal hobby. He and his wife, Valentina, journeyed all over the world, treading a unique path through the back roads of history in an effort to learn about the role of toadstools in primitive societies. Their travels took them to the remote highlands of Mexico, where they met a medicine woman who agreed to serve them *teonanacatl*, or "God's flesh," as the divine mushrooms were called. As he chewed the bitter fungus, Wasson was determined to resist its effects so as to better observe the ensuing events. But as he explained to the readers of *Life*, his resolve "soon melted before the onslaught of the mushrooms."

We were never more awake, and the visions came whether our eyes were opened or closed.... They began with art motifs, angular such as might decorate carpets or textiles or wallpaper or the drawing board of an architect. They evolved into palaces with courts, arcades, gardens—resplendent palaces all laid over with semiprecious stones.... Later it was as though the walls of our house had dissolved, and my spirit had flown forth, and I was suspended in mid-air viewing landscapes of mountains, with camel caravans advancing slowly across the slopes; the mountains rising tier above tier to the very heavens.... The thought crossed my mind: could the divine mushrooms be the secret that lay behind the ancient Mysteries? Could the miraculous mobility that I was now enjoying be the explanation for the flying witches that played so important a part in the folklore and fairy tales of northern Europe? These reflections passed through my mind at the very time that I was seeing the visions, for the effect of the mushrooms is to bring about a fission of the spirit, a split in the person, a kind of schizophrenia, with the rational side continuing to reason and to observe the sensations that the other side is enjoying. The mind is attached as by an elastic cord to the vagrant senses.

The visions lasted through the night as Wasson lay on the floor of a tiny hut enraptured by God's flesh. "For the first time," he wrote, "the word ecstasy took on real meaning. For the first time it did not mean someone else's state of mind."

Wasson's account constituted nothing less than a journalistic breakthrough. A mass audience was introduced to the mysterious world of chemical hallucinogens, and soon hundreds of people started

flocking to Mexico to find their own *curandero*. At the same time Dr. Albert Hofmann conducted a chemical analysis of the divine mushroom at Sandoz Laboratories. He extracted the active ingredients and synthesized a new compound: psilocybin. Upon learning of Hofmann's achievement, the CIA immediately procured samples from Sandoz and forwarded the material to Dr. Harris Isbell at the Lexington Narcotics Hospital, where it was tested on drug addicts.

Among those whose interest was piqued by Wasson's article in *Life* was a young professor named Timothy Leary. At the time of Wasson's groundbreaking explorations, Leary was pursuing a successful career as a clinical psychologist. Between 1954 and 1959 he was director of clinical research and psychology at the Kaiser Foundation Hospital in Oakland, California. He published extensively in scientific journals and established himself as a rising star in the field of behavioral psychology. He wrote a widely acclaimed psychology textbook and devised a personality test called "The Leary," which was used by the CIA, among other organizations, to test prospective employees.

Leary's work culminated in an appointment as a lecturer at Harvard University, where students and professors had for years served as guinea pigs for CIA- and military-funded LSD experiments. His first semester at Harvard was relatively quiet compared to what lay in store; he taught his classes and collaborated on another psychology textbook. While all seemed well outwardly, Leary was beginning to have second thoughts about the career he had charted for himself in the charmed circle of academe. He was mired in a mid-life crisis stemming from two failed marriages; his first wife had committed suicide. The turning point came in the summer of 1960 while Leary, then thirty-nine years old, was vacationing at a sunny villa in Cuernavaca, Mexico. A friend procured a handful of magic mushrooms from an old Indian woman, and after a bit of prodding Leary washed them down with a few slugs of Carta Blanca. At the time Leary had not even smoked marijuana. Like many who experimented with psychedelics, he found that his first trip had a profound impact on his way of viewing the world. "It was above all and without question the deepest religious experience of my life," he wrote later. "I discovered that beauty, revelation, sensuality, the cellular history of the past, God, the Devil—all lie inside my body, outside my mind." The transcendent implications of that initial journey into inner space convinced him that the normal mind was a "static, repetitive cir-

cuit." Leary reevaluated his task as a psychologist; from then on he would dedicate his efforts to exploring substances that hinted at other realities and a new conception of the human psyche.

Leary returned to Harvard and established a psilocybin research project with the approval of Dr. Harry Murray, chairman of the Department of Social Relations. Dr. Murray, who ran the Personality Assessments section of the OSS during World War II, took a keen interest in Leary's work. He volunteered for a psilocybin session, becoming one of the first of many faculty and graduate students to sample the mushroom pill under Leary's guidance. Leary had obtained a supply from Sandoz, which distributed the new drug to researchers free of charge.

Among those most impressed by Leary's research project was Richard Alpert, an assistant professor of education and psychology at Harvard. He and Leary became partners and together set out to investigate the emotional and creative effects of the mushroom pill. At first glance they were an unlikely team, given their contrasting personalities. Alpert, the son of a wealthy New England lawyer, was ten years younger and obsessed with "making it" in the academic world. He seemed to be well on his way, having acquired all the accoutrements of success—the sports car, the cashmere sweaters, the cocktail parties, a faculty post at a prestigious university. The last thing Alpert wanted was to rock the boat and jeopardize his career.

Leary, on the other hand, always had a rebellious streak in him. His mother had dreams of his being a priest, and his father wanted him to become a career military officer. Neither wish came true. Leary passed up an opportunity to attend a Catholic seminary and dropped out of West Point after committing a rules infraction that led to the "silent treatment" (a form of ostracism) by the other cadets for nine months. He later enrolled at Alabama University to study psychology, only to be expelled for getting caught in a girls' dormitory. After a brief stint in the service Leary resumed his psychological studies, earning a doctorate from the University of California at Berkeley. And now he was ready for another tussle with the establishment. In his own words Leary was "handsome, clean-cut, witty, confident, charismatic, and in that inert culture unusually creative."

While drawing up plans for a psilocybin experiment, Leary and Alpert consulted two essays by Aldous Huxley, *The Doors of Per-*

ception and *Heaven and Hell*. By coincidence Huxley was in the area as a visiting lecturer at MIT. The elderly scholar was brought into the project, first as an adviser and then as a participant in a psilocybin experiment. He and Leary took the drug together, and after the session they spoke about what to do with this "philosopher's stone." Huxley felt the best way to bring about vast changes in society was to offer the experience to the talented, the well-born, the intelligent rich, and others in positions of influence.

When Dr. Humphry Osmond passed through Boston, Huxley took him to meet Leary. It was the night of the Kennedy election. "We rode out to his place," Osmond remembered, "and Timothy was wearing his gray-flannel suit and his crew cut. And we had a very interesting discussion with him. That evening after we left, Huxley said, 'What a nice fellow he is!' And then he remarked how wonderful it was to think that this was where it was going to be done—at Harvard. He felt that psychedelics would be good for the Academy. Whereupon I replied, 'I think he's a nice fellow, too. But don't you think he's just a little bit square?' Aldous replied, 'You may well be right. Isn't that, after all, what we want?'"

Leary was a relative latecomer to the psychedelic research scene, but right from the start he and his cohorts made no bones about where they were coming from. "We would avoid the behaviorist approach to others' awareness," Leary asserted. "We were not out to discover new laws, which is to say, to discover the redundant implications of our own premises. We were not to be limited by the pathological point of view. We were not to interpret ecstasy as mania, or calm serenity as catatonia...nor the visionary state as model psychosis."

The first formal experiment conducted by Leary's group was a pioneering venture in criminal psychology. Psilocybin was given to thirty-two inmates at the Massachusetts Correctional Institute in Concord, a maximum security prison, to determine whether the drug would help prisoners change their ways, thereby lowering the recidivism rate. At least one member of Leary's research team took psilocybin with the prisoners while another observer stayed straight for the entire session. The pilot study proved successful in the short term; only 25% of those who took the drug ended up in jail again, as compared to the normal rate of 80%.

Leary's research methodology was quite different from that of the CIA's Dr. Harris Isbell, who administered various hallucinogens,

including psilocybin and LSD, to inmates at the Lexington Narcotics Hospital. Some were kept high for six weeks at a stretch. These studies were not designed to rehabilitate criminals; on the contrary, Isbell and the CIA were interested in drugging people to gather more data on the disruptive potential of mind-altering substances. Leary rejected this manipulative approach, believing that research should be conducted *with* subjects rather than *on* them. All of the Concord inmates were briefed beforehand on the effects of the drug, and Leary encouraged his test subjects to provide input and criticism during every phase of the experiment.

Another aspect of Leary's research focused on the relationship between drug-induced and naturally occurring religious experiences. In an unusual experiment he sought to determine whether the transcendent experiences reported during psychedelic sessions were similar to the mystical experiences described in various holy scriptures and reported by saints, prophets, and religious teachers throughout the ages. Although university officials refused to sponsor the experiment, Leary and his assistant, Walter Pahnke, a doctoral candidate at Harvard, proceeded to administer psilocybin to ten theology students and professors in the setting of a Good Friday service, while ten others were given placebos. It was a "double-blind" experiment in that neither Leary nor his subjects knew who was getting the mushroom pill and who was part of the control group. The results of the study were dramatic. Nine out of ten psilocybin recipients reported having an intense religious experience, but only one person from the control group could say the same. In his doctoral dissertation Pahnke concluded that the experiences described by those who had taken the drug were "indistinguishable from, if not identical with" the classical mystical experience.

"The Miracle at Marsh Chapel," as the Good Friday experiment came to be known, generated a highly charged discussion concerning the authenticity of "chemical" or "instant" mysticism. Some religious scholars, such as Walter Houston Clark, professor of the psychology of religion at Andover Newton Theological Seminary, and Huston Smith, professor of philosophy at MIT, supported Leary's contention that with the proper set and setting psychedelics could be used to produce mystical states of consciousness almost at will. These drugs were said to offer not only a means for enhancing spiritual sensitivity; they also opened up the possibility of bringing the

religious experience into the laboratory, where it could be scrutinized and perhaps even explained in scientific terms.

This prospect was not greeted with hosannas by orthodox religious teachers, who denigrated the drug experience as a less genuine form of revelation. Psychedelic advocates countered that the apparent ease with which the mystical experience could be triggered by drugs did not negate its spiritual validity. On the contrary, they believed that the high incidence of drug-related religious phenomena, even in cases where an exceptional set and setting were lacking, stemmed from the fact that on a fundamental level the human mind is connected with the Infinite; psychedelics simply made manifest this basic truth. According to Leary, the personal background of the subject did not matter. "You can be a convict or a college professor," he declared. "You'll still have a mystical, transcendental experience that may change your life."

### *Chemical Crusaders*

In addition to a series of formal studies, Leary's group also held psychedelic sessions on their own outside the university. A clinical setting was rejected in favor of the comfortable surroundings of a private apartment where subjects could relax and listen to music by candlelight. Graduate students and selected individuals from the arts were invited to participate in these off-campus experiments, and the vast majority reported positive experiences. "Anyone who wanted to take the voyage was welcome to come along," Leary said.

In December 1960 Allen Ginsberg and Peter Orlovsky arrived at Leary's house in Newton. Although Ginsberg was a veteran of psychedelic trips, he had never tried psilocybin, so when the opportunity presented itself he and Orlovsky jumped at it. The environment provided by Leary was much more congenial than the research institute in Palo Alto where Ginsberg had taken LSD the previous year. After swallowing the mushroom pills, Ginsberg became slightly nauseous, but his initial queasiness subsided as the drug took command of his being. He and Orlovsky were completely overwhelmed. They took off their clothes and padded around the house, a supernatural gleam in their eyes. Ginsberg was inundated by a rush of messianic feelings. "We're going to teach people to stop hating. Start a peace and love movement," he triumphantly proclaimed.

There he stood in Leary's living room, a squinting prophet (he had removed his spectacles) ready to march through the streets stark naked and preach the coming of a new age.

Leary was not particularly enthusiastic about the prospect of one of his test subjects wandering around in public without any clothes in the middle of the winter. He convinced Ginsberg this was not the best tactic. But the beat poet was still full of fire. He wanted to get Kennedy, Khrushchev, and Mao Tse-tung on the phone in a cosmic rap session that would rid them of their petty hangups about warfare. This being impractical, he decided to call Jack Kerouac, author of *On the Road*, the bible of the beat generation. Kerouac was then living with his mother in Northport, Massachusetts. When the operator came on the line, Ginsberg identified himself as God wanting to talk to Kerouac. He repeated his name, spelling it out: G-O-D. When he realized he didn't have Kerouac's number, he shuffled through his address book and tried again. This time he reached Kerouac and insisted that he take the mushroom pills. "I can't leave my mother," Kerouac replied. Ginsberg urged him to bring his mother. Kerouac said he'd take a rain check.

As Ginsberg and Orlovsky were coming down from the six-hour psilocybin high, they put on robes and sat around the kitchen table sipping steamed milk and talking with Leary about the pills. Ginsberg had some forthright ideas about what to do with the synthetic mushroom. As far as he was concerned, psilocybin had vast implications far beyond the world of medicine; psychedelic drugs held the promise of changing mankind and ushering in a new millennium and therefore no one had the right to keep them from the average citizen.

Whereas Huxley had suggested turning on opinion leaders, Ginsberg, the quintessential egalitarian, wanted everyone to have the opportunity to take mind-expanding drugs. His plan was to tell everything, to disseminate as much information as possible. The time was ripe to launch a psychedelic crusade—and what better place to start than Harvard University, the alma mater of president-elect John F. Kennedy? Leary seemed ideally suited to lead such a campaign. A respected academic, he had short hair, wore button-down shirts, and took his role as a scientist quite seriously. How ironic, Ginsberg noted, "that the very technology stereotyping our consciousness and desensitizing our perceptions should throw up its own antidote.... Given such historic Comedy, who should emerge

from Harvard University but the one and only Dr. Leary, a respectable human being, a worldly man faced with the task of a Messiah."

Ginsberg's vision of a historic movement that would transform human consciousness struck a responsive chord in Leary. "We were thinking far-out history thoughts at Harvard," the LSD doctor recalled, "believing that it was time (after the shallow and nostalgic fifties) for far-out visions, knowing that America had run out of philosophy, that a new empirical, tangible metaphysics was desperately needed; knowing in our hearts that the old mechanical myths had died at Hiroshima, that the past was over, and that politics could not fill the spiritual vacuum." Leary felt that the limited vision of reality prevailing in modern society was partly attributable to the dominant drugs, alcohol and coffee. Change the drugs, and a change of heart would naturally follow: "Politics, religion, economics, social structure, are based on shared states of consciousness. The cause of social conflict is usually neurological. The cure is biochemical."

The task that lay before them was formidable. Ginsberg pulled out his little black address book and began reeling off the names of people they could turn on: painters, poets, publishers, musicians, and so on. In addition to being one of the most important poets of his time, Ginsberg was a cultural ambassador of sorts. He traveled in various circles, and his contacts were international in scope. He would carry the message to everyone he knew.

Ginsberg was off and running. He returned to New York armed with a stash of psilocybin. At the Five Spot in Greenwich Village he gave the mushroom pills to Theolonius Monk, the great jazz pianist. A few days later Ginsberg dropped by Monk's apartment to check on the results. Monk peered out from behind a crack in the door, smiled, and asked if he had anything stronger. Ginsberg also turned on Dizzy Gillespie, who was evidently quite pleased by the gesture. "Oh yeah," he laughed, "anything that gets you high."

In a sense it was Ginsberg's way of returning a historical favor; the jazz musicians had given marijuana to the beats, and now the beats were turning the jazz cats on to psychedelics. Word of the new drugs spread quickly through the jazz scene, and numerous musicians, including many of the preeminent players in the field, experimented with psychedelics in the early 1960s. John Coltrane, the acknowledged master of the tenor saxophone, took LSD and reported upon returning from his inner voyage that he "perceived the interrelationship of all life forms."

It was through Ginsberg that the existence of Leary's research project came to the attention of the beat network. When Neal Cassidy heard about the mushroom pills, he bolted up to Cambridge for a session with the professor. "It's philosophical!" Cassidy exclaimed. "This is the Rolls Royce of dope, the ultimate high." Kerouac arranged to sample the mushroom extract without leaving his mother. A "Dear Coach" letter from Kerouac to Leary described his experience tripping at her house on the day President Kennedy was inaugurated.

Mainly I felt like a floating Khan on a magic carpet with my interesting lieutenants and gods.... We were at the extremist point goofing on clouds watching the movie of existence.... Everybody seemed innocent.... It was a definite Satori. Full of psychic clairvoyance (but you must remember that this is not half as good as the peaceful ecstasy of simple Samadhi trance as I described it in *Dharma Bums*).... The faculty of remembering names and what one has learned is heightened so fantastically that we could develop the greatest scholars and scientists in the world with this stuff.

The letter was signed, "Well, okay. Touch football sometime?"

Another writer Ginsberg brought into Leary's circle was the poet Charles Olson, formerly rector of Black Mountain College in North Carolina. A man of overpowering intellect, Olson was fifty years old at the time of his psychedelic initiation. He stood a towering six feet seven inches, had unruly strands of white hair, and spoke in a deep resonant voice. Olson remembered the first time he tried psilocybin: "I was so high on bourbon that I took it as though it was a bunch of peanuts. I kept throwing the peanuts—and the mushroom—into my mouth." He described the experience as "a love feast, a truth pill... it makes you exactly what you are."

Olson had a strong affinity for the mushroom. He thought it a "wretched shame that we don't have it in the common drugstore as a kind of beer, because it's so obviously an attractive and useful, normal food." But he also sensed immediately that psychedelics were a profound threat to the status quo. After the drug wore off, his first words to Leary were, "When they come after you, you can hide at my house." Leary, being an apolitical creature, shrugged off the remark without much thought. Little did he know that the CIA was already keeping an eye on his escapades at Harvard.

Olson admired Leary for his chutzpah, but he also considered the good professor a bit foolhardy in thinking that happiness would descend in one fell swoop if the world was suddenly bemushroomed.

"Leary used to argue that this was the decade of the mushroom," Olson commented, "and if we didn't get peace from turning everybody on, the race would be destroyed.... I myself think that was rather thin politics to begin with."

In retrospect Ginsberg admitted, "We were probably too proselytizing." It may have been his messianic enthusiasm that rankled Robert Lowell, the New England poet and Pulitzer Prize winner, who was turned on to psilocybin by Ginsberg. Lowell did not report favorably at the end of the session in his apartment. As Ginsberg was leaving, he tried to reassure Lowell by telling him, "Love conquers all." To which the distinguished poet replied, "Don't be too sure." Writer Arthur Koestler was also critical of the mushroom experience. "This is wonderful, no doubt," he told Leary the day after he tripped. "But it is fake, ersatz. Instant mysticism.... There's no wisdom there. I solved the secret of the universe last night, but this morning I forgot what it was."

But the sternest rebuke to the high-flying optimism of the Harvard group was yet to come. Leary was eager for William Burroughs to take the mushroom pills. Burroughs, author of *Naked Lunch*, was something of a mentor to the beat generation. In the summer of 1961 Leary traveled to Tangiers, where Burroughs was living at the time. He was working on a new novel, *The Soft Machine*, smoking a considerable amount of Moroccan kif, and experimenting with a flicker machine developed by his friend Byron Gysin that caused hallucinations similar to mescaline or LSD. The poets Alan Ansen and Gregory Corso were there for the session along with Leary and Ginsberg. Things got off to a swimming start as they sauntered in the warm moonlight high on psilocybin. But the mood quickly changed once it became apparent that the mushroom was not to Burroughs's liking. "No good, no bueno," he kept shaking his head. He split from the others and waited out the "high" in seclusion.

Burroughs was never into drugs simply for a good time. Despite his psilocybin bummer he agreed to go to Cambridge to participate in further experiments in consciousness alteration. Burroughs looked forward to working with sensory deprivation and submersion tanks, stroboscopes, machines to measure brain waves, and all the technical wonders that a prestigious university could supply. But his hopes were dashed as soon as he arrived at Harvard. All he found was a semipermanent cocktail party with a bunch of starry-eyed intellectuals talking some half-assed jive about brotherly love. Leary

kept touting psilocybin as an enlightenment pill, a cure-all for a sick society. To Burroughs, this view was far too simplistic. While agreeing that hallucinogenic drugs could open the doors of perception, he recognized that only the deliberate cultivation of new habits of consciousness could endow such visions with enduring significance. "Remember, anything that can be done chemically can be done in other ways," he insisted. "You don't need drugs to get high, but drugs do serve as a useful shortcut at certain stages of training." Burroughs had already tried drugs as a means of self-realization and was attempting to move on. After a short stint in Cambridge he dropped out of the psychedelic clan for good.

Burroughs was acutely aware of the darker side of American politics, and he had some ominous premonitions about the impending psychedelic revolution. Despite rampant enthusiasm for hallucinogens among his peers, he suspected that sinister forces were also interested in these drugs and that Leary and his sidekicks might be playing right into their hands. Burroughs feared that psychedelics could be used to control rather than liberate the vision-starved masses. He understood that the seeker of enlightenment was especially vulnerable to manipulation from without, and he sounded an urgent warning to this effect in the opening passages of *Nova Express*, published in 1964.

At the immediate risk of finding myself the most unpopular character of all fiction—and history is fiction—I must say this:

Bring together state of news—Inquire onward from state to doer—Who monopolized Immortality? Who monopolized Cosmic Consciousness? Who monopolized Love Sex and Dream? Who monopolized Time Life and Fortune? Who took from you what is yours? . . . Listen: Their Garden of Delights is a terminal sewer. . . . Their Immortality Cosmic Consciousness and Love is second-run grade-B shit. . . . Stay out of the Garden of Delights. . . . Throw back their ersatz Immortality. . . . Flush their drug kicks down the drain—*They are poisoning and monopolizing the hallucinogenic drugs—learn to make it without any chemical corn.*

Shortly after Burroughs left Cambridge another figure arrived on the scene who was destined to up the ante considerably. His name was Michael Hollingshead, and he had a profound impact on Leary and his cohorts. An artful Englishman with a keen sense of humor, Hollingshead had once worked for the British Cultural Exchange. While living in New York City, he acquired a full gram of LSD-25 (enough for ten thousand doses), which he divided with his associate

Dr. John Beresford. They mixed the LSD with powdered sugar and distilled water, tasting the divine confection as they spooned it into a mayonnaise jar. Hollingshead had smoked grass and hashish before, but this was another matter entirely. The doors of perception not only swung wide open, they flew off the jambs: "What I had experienced was the equivalent of death's absolution of the body. I had literally stepped forth from the shell of my body into some other strange land of unlikeness which can only be grasped in terms of astonishment and mystery, an ecstatic nirvana."

When he came down from his initial psychedelic voyage, he called Aldous Huxley to ask his advice about what to do with the magic gram of acid. At that point Hollingshead was unsure whether LSD was more confusing than illuminating. The drug had disrupted his sense of self: "The reality on which I had consciously based my personality had dissolved into maya, a hallucinatory facade. Stripped of one kind of reality, and unwilling or unable to benefit from the possibilities of another one, I was acutely aware of my helplessness, my utter transience, my suspension between two worlds, one outside and the other wholly within." Moreover, he was financially destitute and his marriage was falling apart. Huxley was sympathetic. He suggested that Hollingshead go to Harvard and meet Timothy Leary. If there was any single investigator in the United States worth seeing, Huxley assured him, it was Dr. Leary.

Hollingshead took off for Cambridge with his mayonnaise jar. Leary went out of his way to help his visitor. He offered Hollingshead a free room in his attic, loaned him some money, and invited him to join the psilocybin research team. Naturally Leary gave his guest a mushroom session, and though Hollingshead had a good trip, the drug was not as strong as LSD. Hollingshead obliged by offering his host some acid, but Leary was not eager to take it. He was apparently of the opinion that if you had tried one psychedelic you had tried them all.

One night Hollingshead was driving around outside Leary's house with Maynard Ferguson, the trumpet player, and his wife, Flo. They were smoking a joint in the car because illegal drugs were not allowed inside. Hollingshead told them about LSD, and they became very curious. Eventually he fetched his mayonnaise jar, and they all took a hit. Within an hour the drug had started to come on. Flo thought it was fantastic, and Maynard had to agree; it definitely got

you there. When Leary noticed that Ferguson's face was glowing like an electric toaster, he decided to join them. He took a heaping spoonful, and soon he was flying.

It came sudden and irresistible. An endless deep swamp marsh of some other planet teeming and steaming with energy and life, and in the swamp an enormous tree whose branches were foliated out miles high and miles wide. And then this tree, like a cosmic vacuum cleaner, went ssssuuuck, and every cell in my body was swept into the root, twigs, branches, and leaves of this tree. Tumbling and spinning, down the soft fibrous avenues to some central point which was just light. Just light, but not just light. It was the center of Life. A burning, dazzling, throbbing, radiant core, pure pulsing, exulting light. An endless flame that contained everything—sound, touch, cell, seed, sense, soul, sleep, glory, glorifying, God, the hard eye of God. Merged with this pulsing flame it was possible to look out and see and participate in the entire cosmic drama.

Leary was stunned by the power of the drug. In the wake of his first acid trip he wandered about dazed and confused. What to do, he asked himself, now that the mundane routines of life seemed so futile and artificial? Not knowing quite where to turn, he latched onto Hollingshead as his guru. Leary followed him around for days on end, treating the Englishman with awe. He was convinced that this pot-bellied, chain-smoking prankster whose face was pink-veined from alcohol was a messenger from the Good Lord Himself. Richard Alpert and Ralph Metzner, two of Leary's closest associates, were vexed to see him in such a helpless state. They thought he had really blown his mind, and they blamed Hollingshead. But it was only a matter of time before they too sampled the contents of the mayonnaise jar. Hollingshead gave the drug to all the members of the psilocybin project, and from then on LSD was part of their research repertoire.

Those early days at Harvard were charged with a special mystery and excitement. "Turning on" had not yet become identified with a particular lifestyle or set of values, and there were no maps or guideposts to chart the way. To those who embarked upon these shattering inner journeys, anything and everything seemed possible. It was as if all the fetters were suddenly removed. "LSD involved risk," Hollingshead said. "It was anarchistic; it upset our applecarts, torpedoed our cherished illusions, sabotaged our beliefs. . . . Yet there were some of my circle who, with Rimbaud, could say, 'I dreamed of crusades, senseless voyages of discovery, republics without a his-

tory, moral revolution, displacement of races and continents. I believed in all the magics.'"

Not everyone was enchanted by the renegade psychedelic scene at Harvard. A confidential memorandum issued by the CIA's Office of Security, which had utilized LSD for interrogation purposes since the early 1950s, suggested that certain CIA-connected personnel might be involved with Leary's group. This prospect was disconcerting to Security officials, who considered hallucinogenic drugs "extremely dangerous." "Uncontrolled experimentation has in the past resulted in tragic circumstances and for this reason every effort is made to control any involvement with these drugs," a CIA agent reported. The document concluded with a specific directive: "Information concerning the use of this type of drug for experimental or personal reasons should be reported immediately. . . . In addition, any information of Agency personnel involved with . . . Drs. ALPERT or LEARY, or with any other group engaged in this type of activity should also be reported."

It is known that during this period Leary gave LSD to Mary Pinchot, a painter and a prominent Washington socialite who was married to Cord Meyer, a high-level CIA official. (Meyer oversaw the CIA's infiltration of the US National Student Association and the Congress for Cultural Freedom in Europe, which provided financial support to numerous Cold War liberal intellectuals and writers.) Leary and Pinchot struck up a cordial friendship during her occasional visits to Cambridge in the early 1960s. She asked him to teach her how to guide an LSD session so she could introduce the drug to her circles in Washington. "I have this friend who's a very important man," she confided to Leary. "He's very impressed with what I've told him about my own LSD experience and what other people have told him. He wants to try it himself." Leary was intrigued, but Pinchot wouldn't tell him who she intended to turn on. Nor did she inform her LSD mentor of her marriage to a CIA bigwig.

Leary explained the basic rules about set and setting, emphasizing the importance of a comfortable, sensuous environment for an LSD trip. From time to time Pinchot reported back to him. "I can't give you all the details," she said, "but top people in Washington are turning on. You'd be amazed at the sophistication of some of our leaders. We're getting a little group together. . . ." Leary had no way of knowing that Mary Pinchot was one of President Kennedy's girl-



friends and that she and JFK smoked pot together in the White House. Pinchot was murdered less than a year after Kennedy was assassinated, and her diary disappeared from her home.

When Leary learned of Pinchot's death, he recalled their conversations about LSD. At various times she had hinted that the CIA was monitoring his activities. Since drug research is of vital importance to American intelligence, Pinchot told him that he'd be allowed to conduct his experiments as long as it didn't get out of hand.

But Leary ignored her advice. In the spring of 1962 he published an article in the *Journal of Atomic Scientists* warning that the Russians might try to subvert the United States by dumping a few pounds of LSD into the water supply of major cities. The only way to prepare for such an attack, Leary maintained, was to dose our own reservoirs first as a civil defense measure so that people would know what to expect. Not surprisingly, this suggestion didn't go over well in the scientific community. A number of CIA- and military-sponsored researchers launched vociferous attacks on Leary and Alpert. Dr. Henry Beecher, an esteemed member of the Harvard Medical School faculty who conducted drug experiments for the CIA, ridiculed Leary's research methodology, stating that it reminded him "of De Quincey's *Confessions of an Opium Eater*... rather than a present-day scientific study of subjective responses to drugs." Dr. Max Rinkel, a veteran of the CIA's MK-ULTRA program, denounced Leary in the *Harvard Alumni Review*, as did Dr. Robert Heath, a longtime CIA and army contract employee. As Heath saw it, the whole notion of consciousness expansion was a meaningless abstraction, and impairing the human nervous system with dangerous chemicals could only result in pathological states that might have long-term negative repercussions.

As word of Leary's acid escapades spread around Harvard, university officials began to get edgy. Tensions reached a boiling point during a faculty meeting in March 1962. Leary's opponents charged that he conducted his drug studies in a nonchalant and irresponsible fashion. Specifically they cited the fact that trained physicians were rarely present; moreover, Leary himself got high with his test subjects. While admitting that he was operating outside the medical framework, Leary stuck to his guns and emphasized that taking LSD with a patient was common practice among many psychiatrists. Besides, since psychedelics were educational as well as medical tools, they should be made available outside the medical profession for

investigatory purposes. Just because someone was a physician did not mean he was qualified to administer LSD, Leary argued, especially if he had never tried the drug himself.

Although Leary's volunteers rarely suffered untoward effects, a number of faculty members still had grave misgivings about the psilocybin project. As Dr. Herbert Kelman, recipient of a small grant from the CIA-connected Human Ecology Fund, put it at the meeting, "I question whether this project is being pursued as an intellectual endeavor or whether it is being pursued as a new kind of experience to offer an answer to man's ills."

The following day a sensationalized account of the faculty tussle appeared in the *Harvard Crimson*, the school newspaper. The story was immediately picked up by the Boston press, prompting an investigation by the US Food and Drug Administration, which assisted the CIA's drug testing efforts. A month later Leary was notified that he could not continue his research unless a medical doctor was present when the drugs were administered. LSD, the FDA maintained, was too powerful and unpredictable to be left in the hands of irresponsible individuals, especially when they advocated using it not for scientific or medical purposes but to conjure up so-called religious experiences.

In effect the government had sided with the medical establishment, thereby legitimizing it as the sole authority on these matters. Leary and Alpert were ordered to surrender their supply of psilocybin to the university health service, and a special faculty committee was formed to advise and oversee future experiments. By the end of the year the psilocybin project had been officially terminated. "These drugs apparently cause panic and temporary insanity in many officials who have not taken them," Leary quipped as he grudgingly forked over his stash. The rebellious professor felt that the doctors had a vested interest in keeping psychedelics out of the hands of laymen. He accused the government and the medical establishment of conspiring to suppress valuable methods of research.

Leary's rambunctious style infuriated members of the academic community. Even some of his would-be allies suggested that he tone it down a bit. They feared that his antics might jeopardize other psychedelic researchers. This was also the opinion of Captain Al Hubbard, the incorrigible superspy who visited Leary at Harvard. "I liked Tim when we first met," Hubbard recalled, "but I warned him a dozen times." In no uncertain terms the Captain told Leary to

keep his research respectable, to play ball with the system. Hubbard was keenly aware of the potency of Harvard's name and tried to lend a hand by supplying drugs to the young professor. But eventually the two LSD pioneers had a falling-out. "I gave stuff to Leary," said the Captain, "and he turned out to be completely no good.... He seemed like a well-intentioned person, but then he went overboard."

The dispute over Leary's research methodology quickly became tangled up with reports that sugar cubes laced with LSD were circulating on the Harvard campus. Unconfirmed stories about wild LSD parties and undergraduates pushing trips on the black market were rife. Leary did little to placate his superiors. "LSD is so powerful," he observed wryly, "that one administered dose can start a thousand rumors." While Leary was never directly accused of dealing drugs, his reputation as a freewheeling and euphoric type led many to assume that he was connected with the underground supply. It was a case of guilt by alleged association, and it proved to be the straw that broke the camel's back.

In May 1963 Richard Alpert was summarily dismissed from his teaching post for violating an agreement not to give LSD to undergraduate students. It was the first time a Harvard faculty member had been fired in the twentieth century. "Some day it will be quite humorous," he told a reporter, "that a professor was fired for supplying a student with 'the most profound educational experience in my life.' That's what he told the Dean it was." A few days later the academic axe fell on Leary as well, after he failed to attend an honors program committee meeting—a rather paltry excuse, but by this time the university higher-ups were glad to get rid of him on any pretext.

Leary was unruffled by the turn of events. LSD, he stated tersely, was "more important than Harvard." He and Alpert fired off a declaration to the *Harvard Review* blasting the university as "the Establishment's apparatus for training consciousness contractors," an "intellectual ministry of defense." The Harvard scandal was hot news. In the coming months most of the major US magazines featured stories on LSD and its foremost proponent. Leary was suddenly "Mr. LSD," and he welcomed the publicity. The extensive media coverage doubtless spurred the growth of the psychedelic underground.

Rebuffed by the academic and medical authorities, Leary decided to take his case directly to the people—in particular, young people.

He was convinced that the revelation and revolution were at hand. The hope for the future rested on a simple equation: the more who turned on, the better. It would be a twentieth-century remake of the Children's Crusade, with legions of stoned youth marching ever onward to the Promised Land. Leary would assume the role of High Priest, urging his brethren to "turn on, tune in, and drop out." With the help of the media his gospel would ring throughout the land. "From this time on," he said, "we saw ourselves as unwitting agents of a social process that was far too powerful for us to control or to more than dimly understand."

### *The Crackdown*

When LSD was first introduced to the United States in 1949, it was well received by the scientific community. Within less than a decade the drug had risen to a position of high standing among psychiatrists. LSD therapy was by no means a fad or a fly-by-night venture. More than one thousand clinical papers were written on the subject, discussing some forty thousand patients. Favorable results were reported when LSD was used to treat severely resistant psychiatric conditions, such as frigidity and other sexual aberrations. A dramatic decrease in autistic symptoms was observed in severely withdrawn children following the administration of LSD. The drug was also found to ease the physical and psychological distress of terminal cancer patients, helping them come to terms with the anguish and mystery of death.\* And chronic alcoholics continued to benefit from psychedelic therapy. One enthusiastic researcher went so far as to suggest that with LSD it might be possible to clean out skid row in Los Angeles.

The rate of recovery or significant improvement was often higher with LSD therapy than with traditional methods. Furthermore, its risks were slim compared to the dangers of other commonly used and officially sanctioned procedures such as electroshock, lobotomy, and the so-called anti-psychotic drugs. Dr. Sidney Cohen, the man who turned on Henry and Clare Boothe Luce, attested to the virtues of LSD after conducting an in-depth survey of US and Canadian psychiatrists who had used it as a therapeutic tool. Forty-four doctors

\*The CIA used terminal cancer patients as guinea pigs for testing knockout drugs and psychochemical weapons under the rubric of Operation MK-ULTRA.

replied to Cohen's questionnaire, providing data on five thousand patients who had taken a total of more than twenty-five thousand doses of either LSD or mescaline. The most frequent complaint voiced by psychedelic therapists was "unmanageability." Only eight instances of "psychotic reaction lasting more than forty-eight hours" were reported in the twenty-five thousand cases surveyed. Not a single case of addiction was indicated, nor any deaths from toxic effects. On the basis of these findings Cohen maintained that "with the proper precautions psychedelics are safe when given to a selected healthy group."

By the early 1960s it appeared that LSD was destined to find a niche on the pharmacologist's shelf. But then the fickle winds of medical policy began to shift. Spokesmen for the American Medical Association (AMA) and the Food and Drug Administration started to denounce the drug, and psychedelic therapy quickly fell into public and professional disrepute. Granted, a certain amount of intransigence arises whenever a new form of treatment threatens to steal the thunder from more conventional methods, but this alone cannot account for the sudden reversal of a promising trend that was ten years in the making.

One reason the medical establishment had such a difficult time coping with the psychedelic evidence was that LSD could not be evaluated like most other drugs. LSD was not a medication in the usual sense; it wasn't guaranteed to relieve a specific symptom such as a cold or headache. In this respect psychedelics were out of kilter with the basic assumptions of Western medicine. The FDA's relationship with this class of chemicals became even more problematic in light of claims that LSD could help the healthy. Most doctors automatically dismissed the notion that drugs might benefit someone who was not obviously ailing.

In 1962 Congress enacted regulations that required the safety and efficacy of a new drug to be proven with respect to the condition for which it was to be marketed commercially. LSD, according to the FDA, did not satisfy these criteria. From then on, authorized distribution of the drug was tightly controlled. Anyone who wanted to work with LSD had to receive special permission from the FDA. The restrictive measures were supposedly designed to weed out "the bad apples," as one report put it, and thereby insure against the misuse of regulated substances. The FDA maintained that it did not want to inhibit legitimate researchers who were "sensitive to their

scientific integrity and moral and ethical responsibilities."

By designating LSD an "experimental drug," the FDA had in effect ruled that it could only be used for research purposes and never as part of general psychiatric practice. Consequently it became nearly impossible for psychiatrists to obtain psychedelics legally. Some of the most distinguished and experienced investigators were forced to abandon their work, and the conditions that might have demonstrated LSD's therapeutic potential virtually ceased to exist. "It was a very intense period," Dr. Oscar Janiger recalled. "The drug experience brought together many people of diverse interests. We built up a sizeable amount of data... and then the whole thing just fell in on us. Many who formerly were regarded as groundbreakers making an important contribution suddenly found themselves disenfranchised."

Certain officials suggested that those who practiced psychedelic therapy were themselves to blame for the crackdown on LSD research. In a thinly veiled reference to Leary, Drs. Jonathan Cole and Robert Katz of the National Institutes for Mental Health expressed concern that some investigators "may have been subject to the delirious and seductive effects of these agents." AMA president Roy Grinkler harped on the same theme, proclaiming, "At one time it was impossible to find an investigator willing to work with LSD-25 who was not himself an 'addict.'"

As far as Grinkler was concerned, the elimination of psychedelic studies was necessary to insure the health and safety of the American public. In a widely circulated editorial that echoed the psychosis-producing view of hallucinogens, the AMA president stated, "Latent psychotics are disintegrating under the influence of even single doses; long-continued LSD experiences are subtly creating a psychopathology. Psychic addiction is being developed." He issued an urgent warning to the psychiatric profession that "greater morbidity, and even mortality, is in store for patients unless controls are developed against the unwise use of LSD-25."

Many LSD researchers were quick to point an accusing finger at Leary for bringing the government's wrath down on everybody. But is it plausible that one wayward individual was single-handedly responsible for provoking a 180-degree shift in official government policy with respect to psychedelic research? Was the FDA simply overreacting to Leary's flamboyant style, or were there other forces at work?

Up until the early 1960s LSD studies had flourished without government restrictions and the CIA had sponsored numerous research projects to enhance its mind control capabilities. In 1962, however, the Technical Services Staff, which ran the MK-ULTRA program, began to orient its behavioral activities exclusively toward operations and away from peripheral long-range studies. This new strategy resulted in the withdrawal of support for many academics and private researchers. Extensive LSD testing was no longer a top priority for the MK-ULTRA crew, which had already learned enough about the drug to understand how it could best be applied in selected covert operations. They had given up on the notion that LSD was "the secret that was going to unlock the universe." While acid was still an important part of the cloak-and-dagger arsenal, by this time the CIA and the army had developed a series of superhallucinogens such as the highly touted BZ, which was thought to hold greater promise as a mind control weapon.

The CIA and the military were not inhibited by the new drug laws enacted during the early 1960s. A special clause in the regulatory policy allowed the FDA to issue "selective exemptions," which meant that favored researchers would not be subject to restrictive measures. With this convenient loophole the FDA never attempted to oversee in-house pharmacological research conducted by the CIA and the military services. Secret arrangements were made whereby these organizations did not even have to file a formal "Claim for Exemption," or IND request. The FDA simply ignored all studies that were classified for reasons of national security, and CIA and military investigators were given free reign to conduct their covert experimentation. Apparently, in the eyes of the FDA, those seeking to develop hallucinogens as weapons were somehow more "sensitive to their scientific integrity and moral and ethical responsibilities" than independent researchers dedicated to exploring the therapeutic potential of LSD.

In 1965 Congress passed the Drug Abuse Control Amendments, which resulted in even tighter restrictions on psychedelic research. The illicit manufacture and sale of LSD was declared a misdemeanor (oddly enough, possession was not yet outlawed). All investigators without IND exemptions were required to turn in their remaining supplies to the FDA, which retained legal jurisdiction over psychedelics. Adverse publicity forced Sandoz to stop marketing LSD

entirely in April 1966, and the number of research projects fell to a mere handful.

The decision to curtail LSD experimentation was the subject of a congressional probe into the organization and coordination of federal drug research and regulatory programs. The inquiry in the spring of 1966 was led by Senator Robert Kennedy (D-N.Y.), whose wife, Ethel, reportedly underwent LSD therapy with Dr. Ross MacLean (a close associate of Captain Hubbard's) at Hollywood Hospital in Vancouver. Senator Kennedy asked officials of the FDA and the NIMH to explain why so many LSD projects were suddenly canned. When they evaded the issue, Kennedy became annoyed. "Why if they were worthwhile six months ago, why aren't they worthwhile now?" he demanded repeatedly. The dialogue seesawed back and forth, but no satisfactory answer was forthcoming. "Why didn't you just let them continue?" asked the senator. "We keep going around and around. . . . If I could get a flat answer about that I would be happy. Is there a misunderstanding about my question?"

Kennedy insinuated that the regulatory agencies were attempting to thwart potentially valuable research. He stressed the importance of a balanced outlook with respect to LSD: "I think we have given too much emphasis and so much attention to the fact that it can be dangerous and that it can hurt an individual who uses it . . . that perhaps to some extent we have lost sight of the fact that it can be very, very helpful in our society if used properly."

Kennedy's plea fell on deaf ears. The FDA steadfastly refused to alter the course it had chosen. In 1967 a Psychotomimetic Advisory Committee (a joint FDA/NIMH venture) was established to process all research applications. Members of this committee included Dr. Harris Isbell and Dr. Carl Pfeiffer, two longtime CIA contract employees. Shortly thereafter the NIMH terminated its last in-house LSD project involving human subjects. In 1968 the Drug Abuse Control Amendments were modified to make possession of LSD a misdemeanor and sale a felony. Responsibility for enforcing the law was shifted from the FDA to the newly formed Bureau of Narcotics and Dangerous Drugs. Two years later psychedelic drugs were placed in the Schedule I category—a classification reserved for drugs of abuse that have no medical value.

While aboveground research was being phased out, the CIA and the military continued to experiment with an ever more potent

\* variety of hallucinogens.\* In effect the policies of the regulatory agencies were themselves "regulated" by the unique requirements of these secret programs. As an official of the Department of Health, Education and Welfare (of which the FDA was part) explained, "We are abdicating our statutory responsibilities in this area out of a desire to be courteous to the Department of Defense... rather than out of legal inability to handle classified materials." The same courtesy was proffered to the CIA. The FDA collaborated with the Agency in other ways as well. FDA personnel with special security clearances served as consultants for chemical warfare projects. Information concerning new developments in the field of psychopharmacology was exchanged through confidential channels. The FDA also provided laboratory facilities and samples of new drugs that might prove useful to the CIA.

In light of the FDA's relationship with the intelligence community, it is highly unlikely that a major policy decision regarding LSD would have been made against the wishes of the CIA. If the Agency had wanted aboveground LSD studies to proliferate, they would have. But this type of research was no longer essential as far as the CIA was concerned. The spymasters viewed LSD as a strategic substance, as well as a threat to national security, by virtue of its psychotomimetic properties, which had been fully explored during the 1950s. Creative or therapeutic considerations were not part of the covert game plan. When push came to shove, the medical establishment implemented a policy based on the psychosis-producing view—that is to say, the CIA's view—of hallucinogens, even though this perspective was vigorously contested by many scientists.

By the early 1960s, when the new regulatory policy was enacted, a large number of people had already heard about LSD. Some were

\*During this period the Army Chemical Corps and the CIA's Office of Research and Development initiated a project to create new compounds "that could be used offensively." A major portion of the OFTEN/CHICKWIT Program, as the joint effort was called, was geared toward incapacitants. A CIA memo dated March 8, 1971, indicates that a backlog of more than twenty-six thousand drugs had been acquired "for future screening." Information gathered from this screening process was catalogued and data-banked in a "large, closely held" computer system that monitored worldwide developments in pharmacology. Under the auspices of OFTEN/CHICKWIT at least seven hallucinogens similar to BZ were tested; inmates at Holmsburg prison in Pennsylvania were used as test subjects for some of the drugs. Very little is known about these experiments, although CIA documents mention "several laboratory accidents" in which a drug designated EA-3167 produced "prolonged psychotic effects in laboratory personnel."

eager to try the drug, but they no longer had access to psychedelic therapists, who were the original "gatekeepers," so to speak. "The whole thing was just moving geometrically," Dr. Oscar Janiger recalled. "Obviously those people who couldn't get it from us would be seeking to get it elsewhere." A certain momentum had been generated—thanks in no small part to the CIA—and it quickly reached a point where the government could no longer contain it. Black market acid began to turn up on the street to meet the growing demand. This remarkable social phenomenon continued to gather strength despite the repeated admonitions of educators, doctors and politicians. Soon the "laboratory" would stretch across the entire continent as millions of young investigators undertook their own experiments with this consciousness-quaking chemical.