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The History of MDMA as an Underground Drug in the United States, 1960–1979

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ABSTRACT

MDMA (3,4-methylenedioxy-methylamphetamine, a.k.a. "ecstasy") was first synthesized in 1912 and resynthesized more than once for pharmaceutical reasons before it became a popular recreational drug. Partially based on previously overlooked U.S. government documentation, this article reconstructs the early history of MDMA as a recreational drug in the U.S. from 1960 to 1979. According to the literature, MDMA was introduced as a street drug at the end of the 1960s. The first forensic detection of MDMA "on the street" was reported in 1970 in Chicago. It appears that MDMA was first synthesized by underground chemists in search of "legal alternatives" for the closely related and highly sought-after drug MDA, which was scheduled under the Controlled Substances Act (CSA) in 1970. Until 1974, nearly all MDMA street samples seized came from the U.S. Midwest, the first "hot region" of MDMA use. In Canada, MDMA was first detected in 1974 and scheduled in 1976. From 1975 to 1979, MDMA was found in street samples in more than 10 U.S. states, the West Coast becoming the major "hot region" of MDMA use. Recreational use of MDMA spread across the U.S. in the early 1980s, and in 1985 it was scheduled under the CSA.

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By the 1990s, 3,4-methylenedioxy-methylamphetamine (MDMA or "ecstasy") had become a significant recreational drug worldwide. It was first synthesized in the search for hemostatics at the pharmaceutical company Merck KGaA (of Darmstadt, Germany) in 1912 and patented in 1914. Pharmacological tests with MDMA in animals were conducted at Merck in 1927, 1952, and 1959, but these were left unpublished (Beck 1997/1998; Benzenhöfer and Passie 2006; Bernschneider-Reif, Oxler, and Freudenmann 2006). The toxic effects of MDMA were studied secretly by the U.S. Army in laboratory animals at the University of Michigan in 1953–4 (Hardman, Haavik, and Seevers 1973). In 1960, two Polish chemists published a paper describing a synthesis of MDMA (Biniecki and Krajewski 1960). No human studies with MDMA took place until the 1970s.

MDMA's history as an underground drug began most probably in the 1960s in the U.S. The drug was first conclusively detected in a street sample by a forensic lab in 1970 (Sreenivasan 1972). Increasingly often through the 1970s, MDMA was found in forensic street samples and underground laboratories. In the first half of the 1980s, MDMA began being distributed on a large scale, and in 1985 MDMA was banned in the U.S.

The present article focuses on the history of MDMA as an underground drug in the 1960s and 1970s. In the literature, this period receives only passing mention (e.g., Seymour 1986; Kirsch 1986; Shulgin 1986, 1990, 1997; Eisner 1989; Shulgin and Shulgin 1991; Saunders and Walder 1994; Beck and Rosenbaum 1994; Silcott and Silcott 2000; Pentney 2001; Pilcher 2008). Existing findings are incorporated in the following text, but we draw also on a previously unpublished U.S. government source document: "Schedule I Control Recommendation Under the CSA [Controlled Substances Act] for 3,4-Methylenedioxymethamphetamine (MDMA)." It was compiled by the Drug Control Section, Office of Diversion Control at the U.S. Drug Enforcement Administration (DEA) in January 1984 (cited in the following as Drug Control Section DEA 1984). The complex developments since 1980, which led to the ban of MDMA, are not covered in this report, but short remarks about this period are offered in the summary section.

The following history is divided into subsections: 1960–1969, 1970–1974, and 1975–1979. But before turning to MDMA, the chemically similar and historically related substance MDA (Figure 1) deserves mention.

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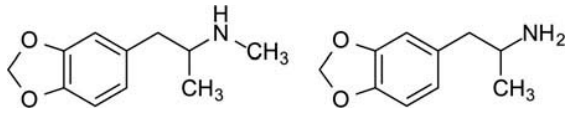

Figure 1. Molecular Configuration of MDMA (Left) and MDA.

MDA

The drug MDA (3,4-methylenedioxy-amphetamine), which is in some respects similar to MDMA, played a significant role in the pre-history of MDMA (Beck and Rosenbaum 1994). In the 1950s and 1960s, MDA was tested for selected medical indications by pharmaceutical companies, but it was abandoned due to unwanted "central side-effects" (Smith, Kline & French Laboratories 1957; Friedhoff et al. 1958; Cook and Fellows 1961).

MDA's hallucinogenic effects were discovered in 1955 (Alles 1959). MDA then turned up as a recreational drug in the mid-1960s (Meyers, Rose, and Smith 1967; Stafford 1992, 289) and quickly developed a reputation for producing a sensual, easily manageable euphoria, thus its nickname "The Love Drug" (Weil 1976; Student Association for the Study of Hallucinogens1974). By the end of the 1960s, there was no difficulty in obtaining "unending quantities of it, as it was available as a research chemical from different supply houses" (Shulgin and Shulgin 1991, 717f). This ended in 1970, when MDA was scheduled under the CSA. Thereafter, recipes for MDA were distributed in underground chemistry cookbooks (Anonymous 1973; Smith 1973; Salt and Pepper Syndicate 1976). Underground laboratories manufacturing MDA were frequently seized by the DEA and the drug became one of five "drugs of choice produced in the United States by clandestine laboratory operators" (Frank 1983, 31). Its scheduling did not slow demand, production, and use (Dye 1982; Renfroe 1986). Indeed, production increased during the 1970s (Frank 1983).

MDA also played a role in drug-assisted psychotherapy, as would MDMA later. Claudio Naranjo and Alexander T. Shulgin did some initial tests (Naranjo, Shulgin, and Sargent 1967), and the psychotherapist Leo Zeff began using MDA in psychotherapy in the 1960s (Stolaroff 2004; Shulgin and Shulgin 1991, 73f). In the mid-1970s, MDA, although indexed, was tested in one of the last government-funded research projects investigating drug-assisted psychotherapy (Turek, Soskin, and Kurland 1974; Yensen et al. 1976).

MDMA, 1960 to 1969

In 1960, the chemists Stanislaw Biniecki and Edmund Krajewski of the Medical Academy of Warzawa (Poland) published a report in Polish about the synthesis of MDMA from the essential oil safrole (Biniecki and Krajewski 1960). In 1961, an English abstract appeared in *Chemical Abstracts* (Langs 1961).

The American chemist Alexander T. Shulgin, who had a great interest in psychoactive drugs (having, for example, synthesized the closely related 3,4-methylenedioxyethylamphetamine or MDE in 1967), mentioned once that he had first synthesised MDMA in 1965 (Shulgin and Shulgin 1991), but this date has not been reliably verified (Benzenhöfer and Passie 2010).

Information on the appearance of MDMA as a recreational drug in the 1960s in the U.S. is vague. M. M. Kirsch, a Los Angeles-based writer who interviewed researchers, coroners, toxicologists, chemists, and dealers on both coasts (Kirsch 1986, IV), wrote in his well-informed book "Designer Drugs" that "a number of black-market chemists had synthesized it during the 1960s but found LSD and MDA more profitable" (Kirsch 1986, 80). The Californian psychopharmacologist Ronald Siegel wrote that MDMA "remained relatively ignored until 1968 when nonmedical use first appeared in the western part of the US" (Siegel 1986, 349). But, as with Shulgin's claim to a 1965 synthesis, neither Kirsch nor Siegel provided solid proof for their claims. Also noteworthy is that the data from the U.S. Army's animal studies on MDMA in 1953–54 were declassified in 1969 but left unpublished until 1973 (Hardman, Haavik, and Seevers 1973).

MDMA, 1970 to 1974

In a 1997 German-language publication titled "The early history of MDMA," Shulgin reported an epistolary exchange in 1970 with a chemist who owned a chemical company in Los Angeles. When Shulgin first met him at a conference in Santa Monica, he mentioned his ambition to increase the number of legal psychoactive chemicals in his inventory. He asked Shulgin for help synthesizing DOM and "N-Methyl-MDA," or MDMA. A short time later, Shulgin sent him instructions for the synthesis of MDMA (Shulgin 1997, 101). The chemist thanked Shulgin in a letter and mentioned that he had informed a young psychologist, one of his "customers," about MDMA.

During an August 1970 conference of the American Society for Pharmacology and Experimental Therapeutics held at Stanford University, Shulgin happened to meet a young "pharmacologist/psychologist" with the same name as the chemist's customer from the Midwest. This person had come to San Francisco to study street drugs with the Haight Ashbury Free Medical Clinic. A while later, Shulgin was informed

that the young pharmacologist/psychologist had gone back to the Midwest (Shulgin 1997, 101f). The fact that MDMA first appeared in the Midwest is suggestive, but there is no conclusive evidence about the possible involvement of the owner of the Los Angeles chemical company or the young pharmacologist/psychologist from the Midwest in the emergence of MDMA as a recreational drug.

In August 1970, the Chicago Police Department seized the first MDMA sample in the U.S. Data from the analysis were first announced at a meeting of crime laboratory chemists. The author presented findings on "a new series of amphetamines," among them DOM, TMA, MDA, and the then virtually unknown MDMA (Sreenivasan 1972, 308). The next appearance of MDMA in street samples was documented by the Chicago Regional Laboratory of the Bureau of Narcotics and Dangerous Drugs (BNDD). In the 4 May 1972 issue of the DEA-owned journal *Microgram*, the authors point to "several inhibits [sic]… within the last months containing 3,4 methylenedioxymethamphetamine (MDM)" in the Chicago area (Gaston and Rasmussen 1972, 60). Further samples of 12.75 and 37.79 grams of MDMA were seized in Chicago on 31 May 1972, and two capsules were seized in nearby Evanston, Illinois, on 1 July 1972 (Drug Control Section DEA 1984, 17).

On 25 April 1973, more than 890 grams of pure MDMA (plus enough precursors for another 10 kg of MDMA) were confiscated by the DEA in a lab in Cedar Hill, Tennessee (Drug Control Section DEA 1984, 21). DEA officials reported that this and other "…laboratories seized were believed to be making a controlled substance (MDA)," but were found to be producing MDMA. Consequently, "investigations were not continued due to the noncontrolled status of MDMA" (Drug Control Section DEA 1984, 11). In 1974, DEA labs analyzed five MDMA street samples from Champaign, Illinois, and Aspen, Colorado (Drug Control Section DEA 1984, 17).

Although this paper focuses on the U.S., it should be mentioned that, in the 1970s, MDMA also appeared in Canada. Keith Bailey and his colleagues at the Research Laboratories of the Health Protection Branch in Ottawa, Canada, submitted a scientific manuscript in August 1974 in which they identified five N-methylated analogues of hallucinogenic amphetamines and reported that MDMA "has been encountered on the illicit market" in Canada (Bailey et al. 1975, 62). A laboratory producing MDMA was raided in Ontario, Canada, in early 1976 (Drug Control Section DEA 1984, 11), and consequently MDMA was scheduled in Canada on 11 June 1976.

MDMA, 1975 to 1979

According to Kirsch (1986, 81), "in the mid-1970s a group of entrepreneurs/chemists decided to set up a lab in Marin County, California, to manufacture MDMA." It is not clear when the lab started production, but it is known to have been active until the 1980s (Klein 1985).

Around 1975, Alexander Shulgin, also based on the West Coast, again became involved with MDMA. Shulgin met a young student who was interested in drugs, especially in "some N-methylated compounds" (as is MDMA). The student had found in self-experiments that MDMA had a significant "amphetamine-like component" (Shulgin 1997, 102). In his laboratory notebook, Shulgin referred to this student as "Marty" ("~1975: Marty—reports considerable amphetamine-like content" (Shulgin 1960–1976, 186).

Probably in the same year (no date is given), Shulgin met another person who had used MDMA. In a box on the right side of page 186 of his laboratory notebook (it is unclear when Shulgin added it), the trials of a certain "Flip" with "N-methyls," especially with "N-methylated MDA" (i.e., MDMA), are listed. "Flip" had taken 15, 30, 45, 60, 75, 100, and 150 mg of MDMA. Doses of up to 60 mg had "no effect," 75 mg made him "fuzzy," 100 mg and 150 mg made him "active" (Shulgin 1960–1976, 186). Given the circumstances, it is probable that "Flip" is a colleague from the University of San Francisco whom Shulgin identified as someone who had synthesized some N-methylated phenethylamines in the 1970s (Shulgin 1997, 103).

In 1975, another forensic detection of MDMA in a street sample was reported by the Northwest Indiana Criminal Toxicology Laboratory in Gary, Indiana (Eichmeier and Caplis 1975). PharmChem Laboratories Analysis Anonymous® received its first sample of MDMA in 1975 from an unknown location (Renfroe 1986, 366). Analysis Anonymous was a confidential drug testing service of the non-profit PharmChem Laboratories and grew into one of the largest drug testing laboratories worldwide. A person submitting a sample anonymously could later call an answering machine to get the results of the analysis. It was active from 1972 to 1983 and analyzed more than 20,000 street drug samples (Renfroe 1986).

In 1981, an early distributor of MDMA was quoted in the underground magazine *WET*: "We first started distributing Ecstasy five years ago…." This would make 1976 the first year of its distribution as a recreational drug (Anonymous 1981, 76). As far as can be reconstructed from the literature, the name "ecstasy" was coined by the former student of theology and later proselytizer of MDMA Michael Clegg in 1981 (Eisner

1989; Clegg 2013). PharmChem received the first street drug sample of MDMA submitted under the name "ecstasy" in 1981 (Renfroe 1986).

The DEA-associated drug researcher Siegel, mentioned earlier, noted that "respondents had reported widespread use [of MDMA] in Boston by 1976" (Siegel 1986, 349). Siegel may be referring here to a group of early distributors, later known as the "Boston group." According to Beck and Rosenbaum, this group "had commenced production in 1976. The chemists in this group had a 'therapeutic' perspective. They worked on their own timetable, often neglecting to meet the growing demands of the market" (Beck and Rosenbaum 1994, 18f).

DEA labs did not find any MDMA in 1976, but a non-DEA forensic lab at the Texas Department of Public Safety reported the first samples of MDMA in Texas. According to the DEA, PharmChem Laboratories reported five submissions of MDMA in 1976 (Drug Control Section DEA 1984, 20).

According to Shulgin, one of his students (later given the pseudonym "Klaus") "was intrigued by MDA and… its N-methylated homolog, MDMA," and in 1976 set up lab space and started MDMA production. Klaus had a bad stutter. When Shulgin met him a few years later, the stutter was gone. He reported to Shulgin "that methylated MDA allowed me to do new things with myself…. I have some control over my talking for the first time. And I've decided to take up a new career… speech therapy" (Shulgin and Shulgin 1991, 70). Shulgin wrote that he had MDMA "on the shelf" at this point in time but still had not tried it (Shulgin 1997, 102).

Shulgin reports that he next heard of MDMA from another student in mid-1976. At this time, Shulgin was giving graduate courses on forensic toxicology at the University of California San Francisco (UCSF). "One of these [students] was a dear, dear sprite appropriately named Merrie Kleinman, who told me that she had done an experiment with two very close friends of hers, and that they had used 100 milligrams of N-methylated MDA (MDMA). She shared very little about the experience, but implied that it was quite emotional, and that there had been a basically good reaction from all three of them" (Shulgin and Shulgin 1991, 69; Shulgin 1960–1976, 186). Shulgin's self-trials began on 8 September 1976 with a small oral dose of 16 mg. An 81 mg p.o. dose on 27 September 1976 led to an "alcohol-like intoxication," and after taking 100 mg on 5 October 1976, Shulgin simply noted "fine control" (Shulgin Lab Book I, 186).

On 21 and 22 December 1976, Shulgin and Nichols mentioned MDMA at a National Institute of Drug Abuse (NIDA) scientific conference in Bethesda, Maryland. Their paper, "Characterization of three new psychotomimetics," was mainly about two other recently synthesized psychotomimetic drugs (4-methylthio-2,5-dimethoxyphenylisopropylamine and α-methyl-5-methoxytryptamine), which were synthesized in the context of research. The discussion of these two drugs comprises the bulk of the paper, but MDMA is mentioned briefly as a recently found street drug: "For this reason, if for no other, it falls under the purview of the National Institute of Drug Abuse, and a brief description of the pharmacological properties of this compound in man would seem appropriate" (Shulgin and Nichols 1978, 76). The description of the "psychotomimetic" effects of MDMA is very brief: "Qualitatively, the drug appears to evoke an easily controlled altered state of consciousness with emotional and sensual overtones. It can be compared in its effect to marijuana, to psilocybin devoid of the hallucinatory component, or to low levels of MDA" (Shulgin and Nichols 1978, 76). The characteristics of this description of MDMA may point to the fact that Shulgin wasn't aware at this point about the "special effects" of MDMA. When he started his self-trials with MDMA in late 1976 and early 1977, he wrote only of an "alcohol-like intoxication" (Shulgin Lab Book I, 186) and later, even when he gave it to the psychotherapist Leo Zeff in mid-1977, Shulgin referred to MDMA as his "low-calorie martini" (Shulgin and Shulgin 1991, 73). Shulgin's wife, Ann Shulgin, gives further evidence that Shulgin at first took MDMA to be a run-of-the-mill agent within the phenethylamine series. According to Ann Shulgin, he did not have an "appropriate reaction" to MDMA during the few times he took it in late 1976 and early 1977. "Sasha wasn't enthusiastic about the effect of MDMA in the beginning. Only Zeff later on [in mid-1977] had an 'appropriate reaction' and after his first MDMA experience the whole thing began to take off" (Shulgin 2013).

On 2 February 1977, the DEA raided an underground laboratory in San Francisco. They found 150 grams of MDMA and 1.7 kg of 3,4-methylenedioxy-beta-methyl-beta-nitrostyrene, a synthetic intermediate that needs just one step to be converted into MDMA. Additional precursors (412 gr Piperonal, 1000 ml Methylamine) were also found (Drug Control Section DEA 1984, 21). In 1977, another street sample was found in Martinez, California, and a street seizure of 1,730 grams of MDMA was made in New York City on 10 August 1977 (Drug Control Section DEA 1984, 17).

The Drug Abuse Warning Network (DAWN) issued its first report on MDMA in the second quarter of 1977. DAWN is a U.S. public health surveillance system

sponsored by NIDA that monitors drug-related visits to hospital emergency departments and drug-related deaths. Data are collected by retrospective review of medical records from a non-random sample of emergency rooms and medical examiners throughout the U.S. Four mentions followed in 1978 and one in 1979 (U.S. Department of Health and Human Services 1984, 20).

In 1977, non-federal forensic labs reported samples of street drug seizures of MDMA from North Carolina and Texas (Drug Control Section DEA 1984, 18). PharmChem labs registered three samples of MDMA in submissions from San Francisco and Livermore, California, and Eugene, Oregon (Renfroe 1986).

After neighbors informed the police about chemical smells coming from a nearby apartment, on 10 October 1977, the San Mateo police discovered a functioning MDA laboratory in Redwood City, California. The owner of the lab, the notorious underground drug chemist William Leonard Pickard, had produced MDA, but "he knew the law, and rather than brazenly break it, Pickard tried to skirt it.... To get around the fact that [MDA] was illegal, Pickard fiddled with the formula and came up with a chemical cousin, MDMA" (Wilkinson 2001, 115). According to Alan Johnson, the chief inspector of the Santa Cruz district attorney, Pickard's later interrogations implied that "this fellow was trying to change the MDA to make it legal" (Wilkinson 2001, 115). This points again to the fact that underground drug chemists were searching for "legal MDA alternatives."

In mid-1977, Alexander Shulgin handed over some MDMA to one of his long-term acquaintances, the psychotherapist Leo Zeff, who by the late 1960s had become the "secret chief" of a circle of underground therapists using psychedelics in psychotherapy. Zeff's response to MDMA was enthusiastic, and he postponed his retirement plans to disseminate knowledge about MDMA among hundreds of fellow psychotherapists (Stolaroff 2004).

In 1978, the DEA reported finding huge amounts of MDMA, especially in California. In May 1978, 1,811.5 g of pure MDMA was found at the San Francisco airport, 1,813 g in Redwood City, California, on 30 June 1978, and 2,258 g in San Rafael, California, on 10 August 1978 (Drug Control Section DEA 1984, 17).

The well-known drug guru Timothy Leary took his first MDMA trips in 1978 on the East Coast. Apparently he did not immediately go public with his enthusiastic response to this new "empathy-generating drug." His description was published much later (Leary 1985), but Leary served to widen distribution of MDMA through his personal connections (Forte 2013).

Shulgin and Nichols' presentation at a 1976 NIDA conference was published in the conference proceedings in 1978 (Shulgin and Nichols 1978). Additionally, Shulgin made other scientific presentations and publications in 1978, and these contributed to the widening knowledge about MDMA's effects (Shulgin 1978; Shulgin, Braun, and Braun 1978; Anderson et al. 1978).

It seems very clear that Shulgin's interest began to focus more on MDMA only after 1977. As a member of a new pharmacological class of psychoactive agents, later named "empathogens" (Metzner 1983) or "entactogens" (Nichols 1986), these substances differ from the hallucinogens in that they produce virtually no sensory alterations and result in minimal cognitive changes. On the pharmacological level, there is a distinction between these agents and LSD-type hallucinogens as well as the amphetamines. The clearest indication of this is the fact that it is the *S*-(+) isomer of MDMA that is more active, while it is the R-(-) isomer of MDA and other substituted amphetamines that is the more active isomer (Nichols 1986). This fact led to a few systematic trials of the two enantiomers of MDMA in humans in 1978 conducted by the Nichols/Shulgin group (Anderson et al. 1978; Nichols 2013).

In 1979, PharmChem received 12 submissions of street samples containing MDMA (Pharm Chem Laboratories 1985, 5). DEA labs detected MDMA in street samples from Eugene, Oregon (0.30 g), Arvada, Colorado (5.10 g), and Washington, DC (0.461 g) (Drug Control Section DEA 1984, 17). In early 1979, the DEA wrote letters to 15 non-federal forensic labs requesting information on MDMA. In response, the Oregon State Crime Laboratory Division reported 5–10 street samples containing MDMA in the first months of 1979. The California Laboratory located in San Mateo County, CA, analyzed three MDMA exhibits in 1979 (Drug Control Section DEA 1984, 18).

Summary

Before the first appearance of MDMA as a psychoactive drug, the chemically related substance MDA appeared as a street drug. Even after MDA was scheduled in 1970, it never disappeared from the drug market. It can be assumed that continuing demand for a drug "like MDA" in parts of the drug culture led to the search for "legal alternatives"; i.e., molecularly changed variants of MDA that were not yet illegal. One of these "alternatives" was MDMA, which can be produced with relative ease from MDA.

Although first synthesized in 1912 (and sporadically resynthesized thereafter for some pharmacological testing), MDMA as a street drug was a "designer drug" in

the sense that it was intentionally produced in the 1970s to circumvent the law as "a slightly altered molecular variant of a controlled psychoactive substance with similar pharmacological effects" (Kau 2008, 1078).

Looking at its typical psychopharmacological effects, it was clear early that MDMA induces a more "positive" drug experience than MDA. MDMA produces a stable and benign euphoria without sensory alterations or diminished cognition. Its shorter duration reduces the "hangover" on the next day, another well-known adverse effect of MDA (Richards 1971). Possibly, this "empirical finding" of more positive and fewer negative side-effects contributed to MDMA's initial popularity.

According to the literature, MDMA was first introduced as an underground drug at the end of the 1960s (Kirsch 1986; Siegel 1986). There is no solid proof of this claim yet. Forensic detection in a street drug sample was reported in Chicago in 1970. From 1970 to 1974, MDMA was found in additional street samples from the Midwest (Figure 2). Thus, the Midwest became the first "hot region" for MDMA as a street drug in the U.S. Outside of this region, one street sample of MDMA was found in 1974 in Aspen, Colorado, and some were detected during the same year in Ontario. In 1973, a large clandestine MDMA lab was seized in Cedar Hill, Tennessee, which is near the border with Illinois. In 1976, a large MDMA lab was seized in Ontario (western Canada), which lead to the indexing of MDMA in Canada on 11 June 1976.

From 1975 to 1979, the use of MDMA spread throughout the U.S. (Figure 3). An increasing number of street samples were detected in Virginia, Texas, and on both U.S. coasts. The first confirmed detection on the West Coast dates back to November 1975, followed by an increasing number of forensic detections in street samples and 23 submissions collected by PharmChem from 1976 to 1979. In 1977, two labs capable of producing large amounts of MDMA were seized in San Francisco and Redwood City, California. Apparently undetected was a larger MDMA lab established in 1976 in Marin County, California, which, according to Kirsch (1986, 80), operated for five years. It appears that from 1975 onward the West Coast became the second "hot region" for the use and distribution of MDMA.

The chemist Alexander T. Shulgin played a significant, if often exaggerated, role in the history of MDMA. According to Shulgin, he had sent instructions for the synthesis of MDMA to a West Coast chemist in 1970, who then informed a "pharmacologist/psychologist" from the Midwest (Shulgin 1997, 102). This may be true, but provides no clear evidence that the rise of MDMA in the Midwest in 1970–74 had anything to do with Shulgin. But Shulgin surely played a role in popularizing MDMA in the second half of the 1970s. He mentioned two encounters in 1975 with people expressing interest in MDMA. In mid-1976, a student related to him a very positive experience with MDMA. Shulgin's own self-trials with MDMA began in September 1976, and he presented psychopharmacological findings on MDMA at a NIDA conference in December 1976. In mid-1977, he handed over some MDMA to psychotherapist Leo Zeff, later a proselytizer of MDMA in psychotherapy on a national scale. In

Figure 2. Geographical Distribution of MDMA in 1970–74 According to DEA Data (Seizures, Lab Raids, Street Buys and other Data) and PharmChem Data.

Figure 3. Geographical Distribution of MDMA in 1975–79 According to DEA Data (Seizures, Lab Raids, Street Buys and other Data) and PharmChem Data.

1978, Shulgin spoke about or published on MDMA on three occasions (Shulgin 1978; Shulgin, Braun, and Braun 1978; Anderson et al. 1978). Yet, in the broad picture, it looks more as if "MDMA had come across Shulgin" than Shulgin had come across MDMA.

In the beginning of the 1980s, the use of MDMA successively spread further throughout the U.S. With an estimated 10,000 pills distributed per year until the end of the 1970s (Siegel 1986), its use escalated to 30,000 pills per month estimated for 1983 (Pentney 2001). Mainly due to its escalating use in some larger Texas cities beginning in 1983, U.S. senators intervened by urging the DEA to schedule it for endangering of the young. The DEA initiated procedures necessary for its ban and MDMA was scheduled on 1 July 1985 (cf. Beck and Rosenbaum 1990).

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