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CANNABIS: MARIHUANA - HASHISH

Kleanthis Grivas

Translation: Deborah Whitehouse

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Cannabis Sativa (E.W.Smith)

Abbreviations

To my wife Alexandra, without whom this book couldn't have been written.

About the Author

Kleanthis Grivas (b. 1944) is a psychiatrist and neurologist. He has studied medicine and sociology and received his MD and his PhD in Psychiatry from the Aristotle University of Thessaloniki, and is a regular contributor to a number of periodicals and to the newspapers Thessaloniki (Thessaloniki) and Eleftherotypia (Athens). He was the editor of the `Critique of the Government's Draft Law on Drugs' (1986) by the Special Committee of the Medical Association of Thessaloniki. His publications (in Greek) include:

Greece 1940-1974 (Athens: Dialogos, 1974)

Greece in the 20th Century (Thessaloniki: 1981)

Scapegoat: Mental 'Illness' and Drug Addiction (Athens: Paideia, 1983)

Public Health: Beating up on Socialisation (Athens: Stohastis, 1984)

Psychiatric Totalitarianism: The Historical and Social Parameters of Psychiatry (doctoral thesis, Thessaloniki: Ianos, 1985)

The Authority of Violence: The Dead-end of Development, Terrorism, Violence, Drugs, Suicide, Rape, Psychiatric Totalitarianism (Thessaloniki: Ianos, 1987)

Oppositional Psychiatry: Before the Authoritarian Remedial State (Thessaloniki: Ianos, 1989)

Papandreism: A Dark Green Authoritarianism (Thessaloniki: Ekdotiki, 1989)

Drugs and Power (Thessaloniki: Ekdotiki, 1990)

Drugs: The Price of Suppression (Thessaloniki: Ekdotiki, 1991)

Cannabis: Marijuana, Hashish - (Athens: Nea Synora-A.A.Livanis, 1994)

Opiates: Morphine, Heroin, Methadone (Athens: Nea Synora-A.A.Livanis, 1995)

Drug Prohibition: A Tool of Domestic and Foreign Policy (in press)

I'm not in favour of mind-affecting substances; but I support their legalisation.

Firstly, for moral reasons: no one but me has the right to decide which substances I shall or shall not consume.

Secondly, for political reasons: society is not threatened by mind-affecting substances. The danger lies only in the authorities' repressive policy against them.

The right to vote and the right to control my own body are essential aspects of my freedom.

The right to vote is a fundamental aspect of my freedom as a citizen. And the right to control my body is a central aspect of my freedom as an individual.

To ban me from voting is to remove my right to exercise some measure of control over those in power, and consequently it suppresses my freedom as a citizen.

To ban mind-affecting substances is to remove my right to control my own body, and consequently it suppresses my freedom as an individual.

Paraphrasing Thomas Szasz

Foreword

It's quite simple: never in the history of organised society has there been so much talk, never has so much breath been expended on the subject of `drugs' as in the last few decades, and particularly right now. And never have people been so alarmingly confused about a problem which is, admittedly, an acute and complex one.

The confusion covers even the most elementary aspects of the issue: the semantic content, for instance, of words and terms. The term drugs is used quite arbitrarily of the whole gamut of mind-affecting substances, including, worst of all, those that have selectively been made illegal in the service of various ulterior motives. The words habituation and dependence have also undergone considerable semantic distortion, by being used at random, irrespective of whether they relate to the use or the abuse of all or of some substances.

The confusion is exacerbated by the disinformation and sheer lies churned out by the mass media and fostered by the timidity or ulterior motives and self-interest of those who have the knowledge, but lack the will, to make a stand against it.

The confusion provides fertile ground for scaremongering and prejudice, because the most vociferous (and most suspect) champions of every 'anti-drug' campaign defiantly ignore the scientific facts about the nature, the dangers, and the usefulness of substances both legal and illegal.

The confusion is deliberate, calculated to create a negative, contemptuous social stereotype of the users of illicit mind-affecting substances. This then justifies a callous, virulent official policy against them, once they have been condemned in perpetuity to the margins of society, to the one-way streets of the criminal underworld, to the horror of prison.

The confusion is obscurantist, for it paralyses many people's basic intellectual faculties to the point where they uncritically swallow the prevalent notions, without questioning them, without thinking, without asking searching questions about the penalisation of use, and turning a deaf ear to cogent and authoritative answers - when, for instance, such authorities as Arnold Trebach and Lester Grinspoon dispute the very legality of suppression, because the use of mind-affecting substances, as an act of self-aggression, is not and cannot be punishable by law; or when Kleantis Grivas, taking it for granted that a person is a self-defining being in a free society, countersigns Professor Thomas Szasz's declaration that "No one but me has the right to decide what substance I shall or shall not consume."

The confusion is dangerous because it steeps the policy of suppression in public acquiescence, justifies state violence and high-handedness, and legitimises an expanding authoritarianism which erodes rights and emasculates liberties.

The confusion, finally, is cultivated in a highly questionable manner, because it makes an illiberal,

inhuman, irrational policy acceptable, a policy that perpetuates and inflates the problem by strengthening the economically and politically powerful drug networks all over the world.

There has been no lack in Greece of conscious efforts to combat this confusion and to consider the enormous (as it has become) problem of `drugs' in rational terms.

Kleanthis Grivas is one of the few specialists (they can be counted on the fingers of one hand, alas!) who battle vigorously against the ideological manipulation of the majority, against authoritarian coercion and highhandedness. He has made it his life's work, has dedicated himself for nearly twenty years to uncovering and castigating the addiction of the authorities who are bringing back a sinister mediaeval obscurantism in the age of the communication revolution.

Kleanthis Grivas has the erudition to shed light, through his books and articles, on all aspects of the problem: medical and pharmacological; social, historical, and legal; political, cultural, economic, and ideological; philosophical and ethical. He is courageous enough, honest enough, socially sensitive enough to do it. If he weren't, his erudition would be a purely personal matter. Above all, he is gifted with the supreme virtue: a passion for freedom.

Forthright and tough to the point of his polemics being misunderstood when he is defending the unpalatable truth, Kleanthis Grivas isn't interested in being liked; he loathes flattery, refuses to mince his words. He is relentlessly at war with spurious `authorities', solidly substantiates his thinking, and thus invites dialogue with sound arguments. He is not talking to those whose minds are made up, he is striving to awaken the majority, to galvanise them into active speculation, to share his knowledge with everybody.

The fruit of hard work and a sense of responsibility, of courage and free thought, of scrupulous research and anguished vigilance, every book by Kleanthis Grivas is a gift to Greek society.

Yorgos Votsis

Yorgos Votsis is a prominent columnist for Eleftherotypia, one of the biggest newspapers in Greece.

Introduction

Cannabis: From Benediction to Condemnation

Half a century ago, the judge presiding over the Moscow Trials, Andrei Vishinsky, made the doctrine 'the accused is guilty until proved innocent', the cornerstone of the judicial system of Communist totalitarianism. Today, Gabriel Nahas and the rest of the modern witch-hunters have made the same doctrine the cornerstone of the anti-drug hysteria, vociferously proclaiming that 'marihuana should remain guilty until proven innocent'.[\(1\)](#)

For thousands of years cannabis played a vital part in human survival, both as a source of energy, food, and clothing, and also on account of its medicinal and euphoriant properties. Sixty years ago, however, it suddenly became a threat to human existence, and a persecution campaign was launched against it.

Until 1937, people used cannabis for many of their daily needs. After 1937, self-serving, self-proclaimed 'protectors' of society turned it into the ultimate evil, banned its cultivation, and started to prosecute users.

In 1875, cannabis was of such crucial importance for the economy and the survival of the US population that in many states farmers who didn't grow it were punished with imprisonment or heavy fines. After 1937, people had to learn to live with the same sanctions hanging over their heads, but for precisely the opposite reason: the cultivation or harvesting of a single shrub had been transformed from a patriotic duty into an outrageous crime punishable by many years in prison.

Until 1937, the US government published special leaflets urging farmers to grow more cannabis. After 1937, it started producing propaganda to eradicate the plant and sending aeroplanes to spray cannabis plantations in the US and in neighbouring countries with weed-killer.

Until 1937, the authorities described cannabis as a 'valuable plant'. In 1937, they christened it an 'assassin of youth'. In 1942, the official slogan was 'Hemp for Victory'. And in 1946 it became a 'menace to society'.

Until 1937, the American government was exhorting farmers to grow it. In 1937 the same government was sending growers and users to jail. In 1942, a propaganda film was going the rounds, urging increased production and offering growers special subsidies and exemption from military service. But in 1946, the government turned the heavy artillery of the police and the law against them and by 1976, started spraying their land with Paraquat.

How was it possible that a plant, which, from 1000 BC to the mid-nineteenth century, had been one of the biggest crops farmed on the planet and an important factor for satisfying many of the daily needs of people all over the world, should suddenly be transformed from a benediction into a curse? Such a

crucial question cries out for an answer, which cannot be eternally blocked by the combined political and financial interests that lie behind the prohibition of cannabis and the persecution of those who use it.

The authoritarian perversity of suddenly transforming cannabis from a benediction of nature into a curse to be exorcised by police and judicial 'operations' became possible in the age of the dead-end industrial civilisation, when so-called technological 'progress' made developmental folly so powerful that it could place the combined interests of the petrochemical, pharmaceutical, tobacco, and alcohol industries over and above the interests of humankind.

This is precisely the key to interpreting the cancer of selective prohibition which is tearing human society apart in our time, and helping to weaken the natural defences of its members, to blunt their moral resistance, and to undermine the ties that bind them.

In the past, the professional suppression maniacs offered no proof whatsoever of the perils of cannabis to justify prohibiting it and prosecuting users. Their rabid campaign was a matter of inarticulate shouting and intimidating slogans. And their success only goes to show that in this complacently dubbed 'age of reason' the Middle Ages are still very much with us. Today the same people demand scientific proof that cannabis is safe whenever any demand is made to reduce or lift the penal sanctions attendant on its cultivation, possession, use, or distribution.

I intend to provide that scientific proof, not as a concession to the paranoia of the fanatical suppressionists, but as further evidence of the overwhelming folly of a society that allows itself to be treated like an irresponsible baby and prefers the dubious security of servitude to the risks and hazards of freedom.

1 G. Nahas, *Keep off the Grass* (1990), p.24.

Chapter One

The Identity of Cannabis

Until the end of the 19th century, 90% of all ships' sails... 80% of all mankind's textiles and fabrics... 75-90% of all paper in the world... 70-90% of all rope, twine, and cordage... art canvas, paints, varnishes, and lighting oil... the most commonly used medicines in the world... the most complete and available-to-the-body proteins... a lot of building materials and housing... and a number of relaxational substances... were made from hemp.

Jack Herer [\(2\)](#)

1. The plant

Cannabis belongs to the genus *Cannabaa*. It comprises only one species, *Cannabis sativa*, of which there are over a hundred natural varieties. In the past, the many varieties of the plant, which Linnaeus classified as *Cannabis sativa* in 1753, have caused botanists to argue fiercely about its precise classification. Today it is accepted that there is one original species, *Cannabis sativa*, from which have come many varieties (*Cannabis indica*, *Cannabis ruderalis*, etc.), which are distinguished mainly by the active substances they contain.

Cannabis belongs to one of the most highly developed plant families. It uses sunlight more efficiently than any other plant and is a splendid wealth-producing resource that renews itself, thus helping to maintain an ecological balance. It is a self-sown plant, cultivable, fibrous, annual, dioecious (having the male and female flowers on separate plants), capable of being spun, and it produces oil. It looks like a rather erect bush, grows in moist ground under any climatic conditions, and reaches a height of between 1 and 7 metres, depending on the variety grown and on the environmental conditions.[\(3\)](#) The trunk is straight and strong and thickly branched. The leaves are hairy, firm, long-stalked, and palmatisect, with between five and eleven lanceolate, dentate lobes. The male flowers are yellowish green in colour; the female flowers are arranged in characteristic spicate bunches. The seeds are oval, some 4-5 mm long, and contain a thick oil.

2. The uses of cannabis

Throughout history, into the early decades of the twentieth century, cannabis was widely and systematically cultivated because of its extremely useful nutritional, therapeutic, and euphoriant properties.[\(4\)](#) A quick look at its many uses will help us to appreciate the real reasons why cannabis was outlawed and to realise which economically powerful groups had a vital interest in seeing the ban imposed and enforced.[\(5\)](#)

NUTRITIONAL VALUE Until the twentieth century, hemp seeds, either ground or whole, were, and in some cases still are, a staple part of many people's diet, for they are a source of high-quality vegetable

protein.[\(6\)](#)

No other single plant source can compare with the nutritional value of hemp seeds. Both the complete protein and the essential oils contained in hemp seeds are in ideal ratios for human nutrition. Only soybeans contain a higher percentage of protein; however, the composition of the protein in hemp seed is unique in the vegetable kingdom. Sixty-five percent of the proteit content in hemp seed is in the form of globulin edestin.[\(7\)](#) The exceptionally high edestin content of hemp seed combined with albumin, another globular protein contained in all seeds, means the readily available protein in hemp seed contain all the essential amino acids in ideal proportions to assure your body with the necessary building blocks to create proteins like disease-fighting immunoglobulins-antibodies whose job is to ward off infections before the symptoms of sickness set in.[\(8\)](#)

These properties of cannabis led many researchers to conclude that its essential oils provide the immune system with defences against the viruses and various other agents that attack it.

These essential oils support the immune system and guard against viral and other insults to the immune system. Studies are in progress using the essential oils to support the immune system of victims of HIV. So far they have been extremely promising... The insane prohibitions against the most valuable plant on Earth, cannabis hemp, must yield to public demand... The promise of super health and the possibility of feeding the world is at our fingertips.[\(9\)](#)

THERAPEUTIC VALUE Throughout human history cannabis and its derivatives have occupied a paramount position in day-to-day therapeutic practice. Lavishly supplied by nature, non-toxic, safe, and with a wide range of applications, cannabis was recommended for `neuralgia, gout, tetanus, hydrophobia, epidemic cholera, convulsions, chorea hysteria, mental depression, insanity, and uterine haemorrhage'.[\(10\)](#)

In the nineteenth century, the various products of marihuana and hashish in the form of distillations, tinctures, and elixirs were the third most favoured type of medicine of all doctors and patients in the USA. This is why they were included in the American Pharmacopoeia until 1942. Since then, despite the ban, cannabis and its derivatives have remained a major therapeutic agent in the arsenal of natural medicine. [\(11\)](#)

EUPHORANT PROPERTIES The euphoriant effects of the derivatives of cannabis are superior in every way to those of tobacco and alcohol, making marihuana and hashish formidable rivals to these.

Alcohol is extremely toxic. It triggers aggressive behaviour: 50% of all fatal road accidents, 65% of all crimes, 80% of rapes of children and women, and 80% of all cases of domestic violence every year in the US take place under the influence of alcohol. It is addictive and is responsible for many of the mental and physical pathological states (with cirrhosis of the liver leading the field) that kill 150,000 people in the United States every year. An effective dose is very close to a fatal dose (from 1:4 to 1:10).

Tobacco too is toxic and addictive. It seriously affects all the functions of the user's body, particularly the cardiovascular system. It is a powerful carcinogen and 450,000 people die in the US every year of lung cancer due to smoking [\(12\)](#)

Cannabis is the least toxic of all the mind-affecting substances on this planet. It has a sedative effect, is non-addictive, is responsible for no mental or physical pathological state, and it is virtually impossible for it to cause death. In short, one may say that cannabis has all the positive and none of the negative features of alcohol (with the exception of possible dizziness or disorientation in inexperienced users consuming large amounts, or panic attacks, again in cases of over consumption).

ENERGY The biomass produced by cannabis can be converted into methane, methanol, or liquid fuel. In view of the environmental destruction attendant on the production, processing, and use of oil, coal, and nuclear power, it would obviously be much cheaper to produce energy from cannabis, and the effects on the environment would be far less damaging.

Methanol, one of the products of pyrolysis of the biomass of cannabis, was extensively used between 1920 and 1945 to power agricultural and military vehicles, and is still used today in most racing cars. Methanol can also be converted into high-octane liquid fuel by means of a catalytic process the patent for which is owned by Mobil Oil.

PAPER Until 1883, some 75-90% of the world's paper (books, newspapers, maps, banknotes) was made from cannabis. Paper made from cannabis is of higher quality and more durable than any other paper ever made. 'Hemp paper lasted 50 to 100 times longer than most preparations of papyrus, and was a hundred times easier and cheaper to make.' [\(13\)](#)

Many historians believe that the long-lasting superiority of Chinese over Islamic and Western science and art was due to the fact that the Chinese knew how to make paper from cannabis at least as early as the first century BC (i.e. 800 years before the Islamic civilisation and 1,200 years before Western civilisation adopted it). The possession of paper which was of better quality and longer lasting than that produced by other means enabled the Chinese to pass on knowledge from generation to generation, constantly enriching it along the way.

All the major works that have made their mark on modern Western culture were printed on cannabis paper, from the Gutenberg Bible in the fifteenth century to Lewis Carroll's Alice in Wonderland in the nineteenth; and the first (28 June 1776) and second (2 July 1776) drafts of the American Declaration of Independence were written and signed on cannabis paper, just before independence was gloriously proclaimed on 4 July 1776 and the United States of America came into being. [\(14\)](#)

SHIPS' EQUIPMENT From the fifth century BC to the nineteenth century AD, when the steamship was invented, 90% of all ships' equipment was made from cannabis: all the sails, the rigging, the maps, the logs, the books, and the flags were products of 'grass'. [\(15\)](#)

FABRICS AND TEXTILES Eighty percent of the fabrics and textiles people used to make clothes, tents, linen, bedcovers, towels, rugs, babies' napkins, and many, many other things were made from cannabis. Until the eighteenth century, the renowned Irish and Italian linens were made from cannabis; after the eighteenth century, Levi jeans were made from cannabis, though it was later superseded by cotton denim; and right up until the interwar years, the parachutes, tents, rucksacks, and flags used by armies and air forces were also made of cannabis.

ROPE, THREAD, CORD Seventy to 90% of the world's rope, thread, and cord was made from cannabis and was 100% recyclable. After the ban on cannabis in 1937, they were all replaced by non-recyclable petrochemical products, on which DuPont had the monopoly, having reached an agreement with I. G. Farben, the German company that owned the relevant patents.

PAINTING CANVAS All the works of the great painters who have changed the way we view the world, from Caravaggio to Van Gogh, were painted on canvas made from cannabis, which has the advantage of not deteriorating and of remaining in perfect condition for centuries on end.

PAINTS AND DYES For thousands of years, almost all the paints and varnishes that people used either were produced from cannabis or contained hempseed oil. In 1935 alone `58,000 tons of hemp seed were used in America just for paint and varnish. [\(16\)](#) Since 1937 these natural dyes have been replaced by petrochemical products.

BUILDING MATERIAL The cellulose pulp obtained from cannabis can be made into an excellent building and construction material that is practical, cheap, and fire-resistant, and has splendid heat- and sound-insulating properties. We would do well to replace building material produced by felling timber and destroying forests with that produced from cannabis in order to preserve our forests, which are being eroded at a dangerous rate. Unlike forest trees, cannabis renews itself annually and produces 4.1 times more cellulose pulp per acre than other trees.

LAMP OIL Until 1800, hempseed oil fulfilled most of the world's demand for lamp oil. From 1800 to 1870 it lost its place to whale oil, and after that both began to be superseded by petroleum products.

As we shall see, it was precisely this plethora of advantages that led to cannabis' being prohibited, relentlessly persecuted, and harshly suppressed from 1937 onwards. [\(17\)](#) But despite the legal risks, the `forbidden plant' and its derivatives continue to be used for their euphoriant and therapeutic properties and as raw materials to satisfy many people's day-to-day needs.

3. The extent of use

The use of cannabis in traditional societies (e.g. in India) satisfies many day-to-day needs as a source of food, for its therapeutic and euphoriant properties, and as a construction material; while modern industrial societies use it as a raw material for various industrial products and (chiefly the middle and

upper social strata) as a euphoriant.(18)

Cannabis occupies fourth place amongst the licit and illicit mind-affecting substances consumed all over the world for the purpose of inducing euphoria. The first three are caffeine, nicotine, and alcohol. In 1950 there were 200,000,000 cannabis users(19) and in 1969 250,000,000.(20) Cannabis is first amongst the world's illicit mind-affecting substances used for this purpose. In the United States in 1977, a total of 43,000,000 people had used cannabis at least once; in 1990 that figure stood at 66,500,000.(21) In 1977, 55% of the 18-25 age range had tried cannabis at least once;(22) in 1990, 52%.(23)

Today there has been a reduction in the use of marihuana in the USA, judging by the fact that the proportion of school leavers who had smoked `grass' in the month preceding the relevant investigation had fallen from 37% in 1978 to 18% in 1988.

4. Active ingredients

Cannabis contains at least 426 chemical compounds and more than 60 alkaloids, which exist only in this particular plant and are known as cannabinoids.(24) Two of these have physical and psychological effects on human beings, while the rest are biologically inert:

1) Δ 9-Tetrahydrocannabinol or Δ 9-THC is the main active ingredient of cannabis and is found in high concentrations in the sepals of the female plant, which are rich in secretory glands. (25) It was isolated in 1964 by Dr Raphael Mechoulam and his associates in the Hebrew University of Jerusalem, Israel.

2) Δ 8-Tetrahydrocannabinol or Δ 8-THC is much less active than Δ 9-THC.

Cannabis is often erroneously referred to as a narcotic for reasons that have nothing to do with its pharmacological properties or its structure. It is in fact a non-narcotic substance which combines certain characteristics of two broad categories of mind-affecting substances, tranquillisers and psychedelics, while at the same time differing considerably from these.

In small and moderate doses, Δ 9-THC promotes tranquillity and a light sleep with pleasurable dreams followed by a pleasant awakening; from this point of view it resembles `mild' tranquillisers. In larger doses, it induces euphoria. And in even larger doses, it has a mind-expanding effect similar to that of psychedelic substances. In contrast to tranquillisers, however, in extremely large doses Δ 9-THC does not lead to unconsciousness, coma, or death. Nor does cross tolerance develop between Δ 9-THC and LSD or hypnogenic tranquillisers.(26) Δ 9-THC is also difficult to classify on the basis of its structure, which is unlike that of any of the neurotransmitters we know of or believe to exist.

This is why it is now accepted that cannabis `is not a narcotic [and] will be classified as a unique psychoactive drug (27) and that cannabinoids `are a separate group of mind-affecting substances' .(28)

It is speculated that the analgesic effects of Δ^9 -THC are due to the fact that it occupies special receptors in the brain or that it may conduce to the deactivation of a special enzyme (adenocyclase). Its euphoriant effects are believed to result from its interlocking with the receptors of dopamine or serotonin.[\(29\)](#)

5. Derivatives of cannabis

The main products derived from cannabis are marihuana, hashish, and hempseed oil. The first two are widely used as euphoriants and for their therapeutic properties; hempseed oil is not widely used .[\(30\)](#)

1) Marihuana is a greenish mixture made up of dried fragments of all parts of the plant (leaves, flowers, and stems).[\(31\)](#)

2) Hashish is the dried, dark resin produced by the glandular hairs of the flowers and terminal stems of the cannabis plant after they have been compressed under heat.[\(32\)](#)

3) Hempseed oil is the thick, viscous substance obtained from the sepals of the cannabis flower after they have been processed with ethyl alcohol.

These cannabis products differ considerably in their Δ^9 -THC content. The various kinds of marihuana contain between 0.2% and 5 % Δ^9 -THC; hashish 5-12%; and hempseed oil 20-60%. The marihuana used in Europe and the USA contains about 1 % Δ^9 -THC. The Δ^9 -THC content of cannabis steadily diminishes at room temperature by 3-4 % per month.

6. Absorption, breakdown, and excretion

When inhaled as smoke, 50-60% of the Δ^9 -THC in marihuana is absorbed and the rest is destroyed by pyrolysis. When ingested in solid or liquid form, a third of the amount taken in by smoking is absorbed.

Like any other substance, once it has entered the body marihuana undergoes a process of metabolism, [\(33\)](#) the products of which (metabolites), being fat soluble, tend to concentrate in tissues that are rich in fat. They stay there for several days, after which they are excreted in the urine, where they can be detected by various laboratory techniques.[\(34\)](#)

The detection of cannabis derivatives in the urine is of slight and purely relative value, because it does not specify either the manner or the extent of use, but simply shows whether the person concerned has consumed cannabis in the thirty days or so prior to the test. This means that, whether the test is conducted on a chronic user who smokes five to ten joints a day or on someone who has had a few drags out of curiosity, and whether the person concerned smoked a joint an hour ago or a month ago, the result is the same: positive for cannabinoids.

7. Doses and users

The standard dose is considered to be 20 mg of Δ^9 -THC taken by mouth. This corresponds to 1 g of marihuana with a content of 1 Δ^9 -THC ,(35)

In the West, the typical habitual user smokes between one and eight joints with a content of 1 % Δ^9 -THC a day. This means a daily consumption of between 500 mg and 4 g of marihuana, containing 540 mg of Δ^9 -THC, of which 2-12 mg are absorbed. Each joint contains 500 mg of marihuana and 5 mg of Δ^9 -THC, of which one third (approximately 2 mg) is absorbed.(36)

Chiefly for the purposes of research and statistics, cannabis users are divided into four categories on the basis of frequency and duration of use.

- 1) Experimental users consume cannabis once or a few times, out of curiosity or as an experiment.
- 2) Occasional or circumstantial users consume it between one and three times a week.
- 3) Regular or systematic users consume it on a daily basis for up to two years.
- 4) Chronic users consume it on a daily basis for more than two years.

8. Effects of use

The effects of cannabis on the user depend on the type and the quality of the cannabis itself, the duration of use, the dose, the manner in which it is prepared and taken, climate, cultural circumstances, and finally the user's own previous experience, psychological state, and expectations.

DURATION OF EFFECT When it is taken into the respiratory system - by smoking - the effects are felt within a few minutes and last for two to four hours. When it is taken into the digestive system- eaten or drunk - the effects are felt within thirty to forty minutes and last for five to twelve hours. The kind of effect depends on the type, the quality, and the amount of cannabis used, as also on the user's previous experience, psychological state, and expectations. This is why it varies from person to person.

EFFECTS OF A NORMAL DOSE The physiological effects of a normal

dose of cannabis are an increase in the heart rate and in the circulation of the blood and reddening of the eyes. On a psychological level, it has a relaxing, calming, and euphoriant effect, accompanied by drowsiness if the user is alone, or spontaneous laughter if s/he is with other people.

There is usually a subjective conviction that all the senses are heightened and that time is passing more slowly ('everything lasts longer'), short-term memory is weakened, and attention is easily focused on

specific things or circumstances. These effects may be accompanied by over-emotionality, a dry mouth, a feeling of increased mental activity, muscular strength, and appetite, a sensation of weightlessness, and pleasurable fantasies accompanied by relaxation, calm, and sleep with pleasant dreams. On awakening, the user feels refreshed and good-humoured.(37)

Cannabis usually has a positive effect on the user's social and sexual behaviour, the latter because, since concentration is focused on the activity in hand and time seems to pass more slowly, love-making is more pleasurable. Cannabis seems to affect the functioning of both hemispheres of the brain, slightly weakening the processes governed by the left side (logical associations, mental structures) and strengthening those governed by the right side (aesthetic and artistic judgement, holistic thinking).

EFFECTS OF A LARGE DOSE A dose larger than normal will cause the inexperienced user to have unpleasant or even nightmarish feelings, to be unreasonably suspicious of the members of their social group, or to be overcome by paranoia. A large dose may elicit changed perceptions of one's own body, intense anxiety, and panic, particularly in an inexperienced user who is sensitive to cannabis.

FATAL DOSE Death from an overdose of cannabis is virtually unknown. A fatal dose of $\Delta 9$ -THC is approximately 150 g, i.e. 40,000 times greater than an effective dose; while a fatal dose of alcohol is no more than 4-10 times greater than the normal effective dose. An effective dose of $\Delta 9$ -THC is 50 mcg/k, a fatal dose is 2,160,000 mcg/k, giving a ratio of 1:40,000.(38) An effective dose of alcohol is 0.05-0.1%, a fatal dose is 0.4-0.5%, and the ratio of effective dose to fatal dose is between 1:4 and 1:10.

9. Tolerance and dependence

TOLERANCE Normal use of cannabis does not lead to tolerance (the need to steadily increase the dose in order to achieve the desired effect). On the contrary, it often leads to reverse tolerance (the reduction of the dose to achieve the desired effect).

PHYSICAL DEPENDENCE (OR SIMPLY DEPENDENCE) Cannabis does not lead to physical dependence; cessation of use is not followed by withdrawal symptoms,(39) and consequently 'THC is not a narcotic',(40) Stephen Szara of the United States NIDA categorically stated in 1976:

The question of physical dependence, again up to recently, has been answered with a flat no. No physical dependence, the type seen in opiates, has been seen in man and this is true even today. (41)

This is precisely why the most authoritative textbooks on 'addressing and curing dependency' used in medical schools in the US and Europe propose no specific treatment or method for curing cannabis 'dependence'. (42)

The results of the research conducted on regular users of cannabis by the Canadian Government's Commission of Inquiry into the Non-Medical Use of Drugs (the Le Dain Commission) are revelatory. The Le Dain Commission concludes that:

Marihuana is not an addictive drug. Users do not develop tolerance in the classic sense - the kind of tolerance that leads to increasing the dosage... Physical dependence on marihuana has not been demonstrated; it would appear that there are normally no adverse physiological effects or withdrawal symptoms occurring with abstinence from the drug, even in regular users. [\(43\)](#)

However, medical literature does contain some accounts of cases of tolerance and mild withdrawal symptoms in individuals taking large doses of synthetic $\Delta 9$ -THC (a daily dose of 210 mg), under laboratory conditions. [\(44\)](#) Professor Jerome Jaffe writes that:

A withdrawal syndrome has been observed under laboratory conditions when volunteers have taken high doses of $\Delta 9$ -THC every few hours for several weeks. Signs and symptoms included irritability, restlessness, nervousness, decreased appetite, weight loss, insomnia, rebound increase in REM sleep, tremor, chills, and increased body temperature. Overall, the syndrome is relatively mild, begins within a few hours after cessation of drug administration, and lasts 4 to 5 days. The relationship between this relatively mild syndrome and cannabis-seeking behaviour, if any, is unclear. [\(45\)](#)

Needless to say, from a scientific point of view it is quite unacceptable to draw parallels between the consumption of small or moderate doses of natural cannabis for the purpose of getting high and the experimental administration of extremely large doses of synthetic $\Delta 9$ -THC for the purposes of research. There are huge differences between the two cases, with regard to the quality of the substance, the circumstances and purpose of consumption, the dose, and the psychological state of the user.

- The substance In the first case, natural marihuana is consumed, which contains at least 400 chemical compounds and more than 60 cannabinoids, all of them interacting positively together. In the second case, synthetic $\Delta 9$ -THC is administered (i.e. just one of these substances).
- The circumstances In the first case, consumption takes place in a warm, familiar, everyday environment. In the second, in an inhospitable laboratory.
- The purpose In the first case, the purpose is to experience certain psychobiological sensations under the influence of a natural substance. In the second, it is to investigate the physical and psychological effects of a synthetic substance.
- The dose In the first case, small or moderate doses of natural marihuana containing 1-2% $\Delta 9$ -THC are consumed (note that the average user who smokes six joints of natural marihuana a day, weighing 500 mg and containing 1-2% $\Delta 9$ -THC, takes in a total of 30-60 mg $\Delta 9$ -THC). In the second, the subject of the experiment takes a multiple quantity of synthetic $\Delta 9$ -THC, with a daily dose of up to 210 mg. [\(46\)](#)
- The user Between a person who uses marihuana to satisfy his or her own personal needs and someone who uses it in the role of an experimental and closely monitored subject in the context of a strictly controlled investigation, there is a qualitative difference with respect to their psychological state and

their expectations.

10. Psychological dependence

The term psychological dependence refers to a totally subjective situation that cannot possibly be defined in objective terms or quantified. It therefore serves very well as a panachrest, i.e. a semantic tool that is quite useless for the scientific study of a phenomenon, such as the use of certain substances, but a very convenient excuse for banning and criminalising them.

From a political point of view, the notion of 'psychological dependence' as an objective criterion for diagnosing 'addiction' is a sheer figment of imagination dreamed up by criminal lawyers and the police. It came into use in the sphere first of politics and criminal law, and then of medicine in an effort to give some 'scientific' legitimacy to extending suppression from the mind-affecting substances that lead to physical dependence (the only kind of dependence that in fact exists) to those that do not.

Before 1937, suppression was directed at the opiates which induce physical dependence, and their prohibition consequently received a certain amount of scientific backing from the contemporary medical definition of drugs as substances which 'act on the central nervous system, create dependence, and the cessation of which is accompanied by withdrawal symptoms'. After 1937, suppression turned against marihuana, which does not lead to physical dependence and was therefore not covered by the definition. It thus became necessary to revise the definition so that it would embrace all the substances the authorities might want to control both then and in the future. So the scientifically correct definition of drugs quoted above was replaced with the incongruous police and penal definition of drugs as substances which 'act on the central nervous system and lead to physical or psychological dependence'.

From a psychological point of view, the term 'psychological dependence' connotes the desire or the tendency to repeat any activity that gives joy, pleasure, or satisfaction. It can therefore be applied to a great many situations and most, if not all, the choices people make in their personal and social lives.

The moment the notion of 'psychological dependence' becomes an acceptable diagnostic criterion for 'addiction' (which is not only a psychological, but a complex, psychobiological state), human beings are imperceptibly trapped in a closed pantheistic universe of dependence: all their relationships with other people and with things are transformed into dependent relationships; all the other people and things with which they associate become addictive factors; and consequently everyone is dependent, indeed everyone is multiply dependent, which is to say addicted, and indeed multiply addicted. Addicted to food, drink, clothing, work, love-making, social relations, entertainment, knowledge, art, political action, sport, mind-affecting substances...

The establishment of the notion of 'psychological dependence' as a diagnostic criterion for 'addiction' attests the victory of authoritarian metaphysical irrationality over the logic of the natural science of medicine. It is exclusively the product of the authorities' unacceptable interference in the definition of medical criteria; an interference which is made possible by the medical fraternity's subservience to those

who wield power.

2 J. Herer, *The Emperor Wears No Clothes* (1992), pp. 5-11

3 Five varieties of cannabis are grown in Europe, four of which reach a height of between 1 and 2.5 m

4 In Greece cannabis was a major agricultural crop and export product until 1932: 'In 1928 Greece had ten spinning-mills especially for the products of hemp, which was one of its exports' (Pyrros Encyclopaedia, 'Cannabis', Athens: 1930).

5 The main thrust of this paragraph is discussed by J. Herer in *The Emperor Wears No Clothes*.

6 Hemp seed is also an ideal food for many birds, both domesticated and wild.

7 D. Walker, *Can Hemp Save Our Planet?*, Ph.D. thesis quoted in Herer (1992), p.41.

8 S. Cohen and R. Stillman, *The Therapeutic Potential of Marihuana* (1976), quoted in Herer (1992), p.41.

9 Statement by William Eidleman, MD, and Lee Hamilton, PhD, researchers in the medical school of UCLA, on 29 December 1991, quoted in Herer (1992), p.41.

10 G. Wood and F. Bache, *Dispensary of the United States* (1854), p.339.

11 See L. Grinspoon, *Marihuana Reconsidered* (1973); L. Grinspoon and J. Bakalar, *Marihuana: The Forbidden Medicine* (1993); S. Cohen and R. Stillman, *The Therapeutic Potential of Marihuana* (1976); M. Braude and S. Szara, eds., *Pharmacology of Marihuana* (1976).

12 M. Fiore, 'Trends in Cigarette Smoking in the United States', *Medical Clinics of North America*, vol. 74, No 2 (1992), 289.

13 J. Herer, *The Emperor Wears No Clothes* (1992), p.7.

14 On 19 July 1776 Congress ordered the text of the Declaration of Independence to be transcribed onto leather, and it was in this form that the representatives signed it on 2 August.

15 E. Abel, *Marihuana: The First 12,000 Years* (1980).

16 R. Bonnie and C. Whitebread, *The Marihuana Conviction* (1974), quoted in Herer (1992), p.8.

- 17 This at first sight paradoxical assertion that a plant should be banned because of its advantages is explained in Chapter Three, 'The Age of Prohibition'.
- 18 V. Rubin, *Cannabis and Culture* (1975), pp.3-4.
- 19 R. J. Bouquet 'Cannabis', *United Nations Bulletin on Narcotics*, 3 (1951), p.31.
- 20 Deposition by Dr Stanley Yoles, Director of the NIMH, to the Congress Research Committee (17 September 1969).
- 21 National Institute on Drug Abuse (NIDA): *National Household Survey on Drug Abuse*, 1990.
- 22 J. Jaffe, 'Drug Addiction and Drug Abuse', in Goodman and Gilman, *The Pharmacological Basis of Therapeutics* (1990), p.549.
- 23 National Institute on Drug Abuse (NIDA): *National Household Survey on Drug Abuse*, 1990.
- 24 Alkaloids: complex organic substances which are found in plants and affect many bodily functions. They include nicotine, caffeine, theine, morphine, quinine, THC, and many others.
- 25 The male and female plants differ appreciably in their content of active alkaloids, so that it is only the female plants that have any substantial value as euphorants.
- 26 Cross tolerance: when one substance substitutes for another in producing the desired effects.
- 27 R. Julien, *A Primer of Drug Action* (1992), p.270.
- 28 M. Marselos, *Narcotics* (1986; in Greek), p.209.
- 29 Dopamine and serotonin are two of the known neurotransmitters (chemical substances by means of which stimuli are transmitted from one nerve cell to another).
- 30 G. Ikonomopoulos, *Hashish, LSD, Mescaline* (1980; in Greek), pp.95-8.
- 31 Marihuana is also called 'grass'.
- 32 Owing to its colour, hashish is sometimes referred to as 'shit'.
- 33 Metabolism is the organic transformation undergone by any substance that enters the body.

- 34 Thin-layer chromatography (TLC), aerochromatography (AC), and immune chemistry (IC).
- 35 J. Jaffe, 'Drug Addiction and Drug Abuse', in Goodman and Gilman, *The Pharmacological Basis of Therapeutics* (1990), p.549.
- 36 G. Arnao, *Erba Proibita* (1978), p.39
- 37 K. Grivas, *Scapegoat* (1982; in Greek), p.100.
- 38 T. Mikuriya, 'Marihuana in Medicine: Past, Present and Future', *California Medicine* 110 (1969), pp.34-40.
- 39 See the Governor of the Panama Canal's Research Commission on Cannabis (1925); W. Bromberg (1934); La Guardia Report (1944); J. Jaffe, L. Grinspoon, J. Bakatar (in Goodman and Gilman, 1990); and 'The Spurious Arguments for Prohibition: Cannabis is addictive' in this book.
- 40 R. Julien, *A Primer of Drug Action* (1992), p.270.
- 41 S. Szara, 'Clinical Pharmacology of Cannabis: Scientific and Non-scientific Constraints', in Braude and Szara, eds., *Pharmacology of Marihuana* (1976), vol. 1, p.29.
- 42 H. Kaplan, A. Freedman, and B. Sadock (1980) pp.1615-19; L. Goodman and A. Gilman (1990), pp. 549-53; R. Frances and S. Miller (1991); C. Carroll (1992).
- 43 Le Dain Report (1970), quoted in E. Brecher, *Licit and Illicit Drugs* (1972), p.460.
- 44 A normal joint of 500 mg with 1-2% THC contains 5-10 mg THC; 210 mg THC is equivalent to 21-42 joints of natural marihuana.
- 45 J Jaffe, 'Drug Addiction and Drug Abuse', in Goodman and Gilman *The Pharmacological Basis of Therapeutics* (1990), p.553
- 46 See 'The Spurious Arguments for Prohibition: Cannabis is addictive' in this book.

Chapter Two Historical Data

The hemp plant is like a complex thread that weaves through the rich tapestry of history... It has been used for textiles, cordage, paper, seed oil, food, fuel, and more. Women, religions, music, cultures and languages all have special connections to hemp; and the herb's medical legacy stretches back thousands of years. In the words of Carl Sagan, 'It would be wryly interesting if, in human history, the cultivation of marihuana led generally to the invention of agriculture and thereby to civilisation.'

Chris Conrad [\(47\)](#)

Cannabis has been widely used in all historically attested cultures. It has countless applications in everyday life because of its nutritional, therapeutic, and euphoriant properties and its usefulness as a building material. Throughout history, it has been a valuable commodity for the survival of the human race, and has also played a major part in the initiation and other ceremonies of religious ideologies down the ages. [\(48\)](#)

The earliest reference to the therapeutic uses of cannabis is found in the Chinese Emperor Shen Nung's Digest of Herbal Medicine, which dates from 2737 BC and recommends cannabis for a large number of dysfunctions and maladies.

The earliest reference to cannabis in India is found in the Atharva Veda, which was written in 2000 BC and defines it as a sacred plant used in various religious rites. Information about cannabis is also found in the Chinese Rh-Ya (1200-500 BC), the Persian Zend-Avesta, and the Assyrian and Indian Susruta (AD 400).

Many scholars maintain that the Israelites made extensive use of cannabis in the biblical period, taking their evidence from at least two passages in the Old Testament. In 1902, the British doctor

C. Creighton concluded that the Old Testament contains numerous references to cannabis, notably in the Song of Solomon 5:1 and I Samuel 14:25-45.[\(49\)](#) Other scholars maintain that the 'calamus' mentioned in the Song of Solomon is cannabis. [\(50\)](#)

Cannabis is encountered amongst the Assyrians in the tenth century BC and subsequently amongst the Jews, the Arabs, the Persians, the Celts, and the Greeks.

The Assyrians called it quonoubou qunnapu; the Jews qanneb; the Arabs quannob; the Persians quannab; the Celts quannab; and the Greeks cannabis. The Greek word cannabis was taken wholesale into Latin and then, with various modifications, into French (canvre), Spanish (canamo), Portuguese (canhamo), Italian (canapa), Albanian (canep), Russian (konopli), Polish (konopi and penek), Syrian (kanabira), and Arabic (kannabb). It came into Old English (AD 1000) as hanf, modern English as hemp, Belgian as kemp, German as hanf, Dutch as hennup, Swedish as hamp, and Danish as hampa, with the

result that the plant is known as `hemp' throughout the western world.[\(51\)](#)

The various derivatives of cannabis are known by the names bhang, ganja, and charas or churrus in India; kif in Algeria and Morocco; takrouri in Tunisia; dagga in South Africa; djoma in Central Africa; machona or liamba in Brazil; kabak in Turkey; hashish el keif in Lebanon; and grass, pot, tea, dope, Mary Jane, marihuana, etc. in America. Ganja and bhang are widely available in India; they are sold very cheaply and are used by the poorer people instead of alcohol, which is much more expensive.

1. Antiquity

Cannabis was known in ancient Greece in the fifth century BC from Herodotus' accounts of the life of the Scythians (484-429 BC):

In this place [Thrace] is produced a type of cannabis which closely resembles flax, except for its speed of growth and its size, for in these two respects cannabis is much superior to flax. It is both self-sown and grown from seed, and the Thracians make from it clothing which is very like linen... So the Scythians take some of the seed, betake themselves under timbers covered with cloth, and cast it onto stones that are transparent with heat. As it bums, it smokes and gives off more smoke than any Greek bath. Transported by this smoke, the Scythians howl and shriek.[\(52\)](#)

It was their eastern neighbours who taught the Greeks how to grow cannabis and process the fibres, and from these they made strong fabric and rope.

In the Hellenistic period and in Roman antiquity, cannabis was used as a raw material for the production of sailcloth and rope, as a euphoriant, and also for medicinal purposes. There are references to it in the works of many writers of this period, including Pliny the Elder (AD 23-79), the Roman author of the *Historia Naturalis*,[\(53\)](#) Dioscorides of Anazarba (1st C. AD), the founder of pharmacology and author of the *Materia Medica*'[\(54\)](#) and Claudius Galen (AD 128-201 the `father of physiology and internal medicine' and author of *De Facultatibus Alimentorum*.[\(55\)](#)

2. Middle Ages

In the Middle Ages, cannabis was grown all over Europe, where it was used for centuries as a source of food (as is attested by finds around Berlin from AD 500), and also for its therapeutic and euphoriant properties and as a raw material in the making of clothes. It played such an important part in European daily life from the Middle Ages onwards that Francois Rabelais (1490-1553) was prompted to give a detailed account of its effects in the Third Book of *Pantagruel* [\(56\)](#) and wrote:

Without it, how could water be drawn from the well? What would scribes, copyists, secretaries and

writers do without it? Would not official documents and rent-ros disappear? Would not the noble art of printing perish? [\(57\)](#)

When the Arabs came onto the historical scene, the word hashish, which means `grass' or `herb' in Arabic, became widely known in the Western world and was associated with the cult or movement of the Hashshashin, who used cannabis in their initiation ceremonies and other rites. These were Shiite extremists, who eventually broke away in the eleventh century and formed their own movement under the Persian religious and political leader, Hassan Ibn Al Sabah.[\(58\)](#)

Religious factors certainly played an important part in the spread of cannabis from the Far East and India to the Middle East, North Africa, and Europe. The peoples who embraced Islam found in cannabis an ideal substitute for alcohol, which was strictly forbidden to Moslems.[\(59\)](#)

In 1378, the Emir of Joneima in Arabia, Soudoumi Shekhoumi, made the first recorded attempt to ban cannabis. He ordered that all the cannabis plants growing in his dominions be destroyed and that users be punished by having all their teeth drawn. But, like any ban aimed at a practice that is accepted by a broad cross-section of the population, it was ineffectual, and fifteen years later the Emir conceded that while the ban had been in effect `the use of this substance in Arabian territory had increased'. [\(60\)](#)

3. Modern times

From the thirteenth to the nineteenth century, the cultivation of cannabis was a means of survival for much of the rural population both in Europe and in America.

In Europe `hemp was so useful that Henry VIII required its cultivation by English farmers', [\(61\)](#) and in America `by 1630 half of the winter clothing of Americans and nearly all of their summer clothing was made from hemp fibre'. [\(62\)](#) Cannabis was introduced into America by colonists from Europe. The earliest reference to marihuana in the New World dates from 1545, when the Spanish landed in Chile. [\(63\)](#) Early in the sixteenth century, it had come to Brazil with African slaves, who used it as a harmless euphoriant and therapeutic agent. At the start of the seventeenth century it appeared in New England, whence it spread throughout North America. From then, until the American Civil War (1861), hemp made up a large proportion of agricultural production and played a considerable part in the economic life of the American continent.

In the eighteenth and nineteenth centuries, the cultivation of cannabis in North America served a host of life's needs, and in fact was of such crucial economic importance that some states (e.g. Virginia in 1762) `awarded bounties for hemp culture and manufacture, and imposed penalties upon those who did not produce it.'[\(64\)](#) The cultivation and marketing of cannabis was a respectable occupation practised by hundreds of thousands of people, including George Washington (1732-99) and Thomas Jefferson.

George Washington `was actively engaged in hemp farming, and devotees of the intoxicant properties of cannabis have read much into some entries he made in his diary in 1765': [\(65\)](#)

1765, May 12-13. Sowed Hemp at Muddy hole by Swamp. August 7, began to separate the Male from the Female hemp... rather too late.[\(66\)](#)

Andrews and Vinkenoog preface the entries as follows:

The entries from George Washington's Diary show that he personally planted and harvested hemp. As it is known that the potency of the female plants decreases after they have been fertilised by the males, the fact that he regrets having separated them clearly indicates that he was cultivating the plant for medicinal purposes as well as for its fiber. [\(67\)](#)

Thomas Jefferson `smuggled Chinese hemp seeds to America, and is credited with the phrase in the Declaration of Independence: `Life, Liberty, and the Pursuit of happiness'. [\(68\)](#) According to Dr Burke, `seven early presidents were cannabis smokers: George Washington, Thomas Jefferson, James Madison, James Monroe, Andrew Jackson, Zachary Taylor and Franklin Pierce.[\(69\)](#)

In Europe, where cannabis had been known for centuries, there was a resurgence of public interest in its euphoriant properties in the nineteenth century. This was due to two main factors. One was the return to France after the Egyptian campaign (1800) of Napoleon's soldiers, many of whom had been introduced to this aspect of cannabis while abroad and brought their experiences and new habits home with them. The other was the discovery of cannabis' euphoriant effects by a number of artists and writers, who established the famous Club des haschischins: its members included Honore de Balzac,[\(70\)](#) Charles Baudelaire, Henri de Boisdener, Georges Boissard, Alexandre Dumas (pere), Gustave Flaubert, Theophile Gautier, Victor Hugo, Jacques-Joseph Moreau de Tours, Gerard de Nerval, and many others..

Moreau de Tours, who was a psychiatrist, wrote about his experiences with hashish in a monograph titled *Du haschisch et de l'alienation mentale* (1845);[\(71\)](#) Gautier (1811-72) described his own experiences in 'Le Club des haschischins'(72) published in *Le Revue des Deux Mondes* (1844); and Baudelaire (1821-67) gave his own point of view in his *Poeme du haschisch*.[\(73\)](#) It was accompanied by the note:

The uninitiated who are curious to experience exceptional delights should know that they will find nothing miraculous in hashish, absolutely nothing but an excess of the natural. The brain and the body under the influence of hashish will give none but their normal, individual phenomena, enhanced, it is true, in number and energy, but always in accordance with their provenance. Man will not escape the fate of his natural and moral idiosyncrasy. Hashish is a magnifying mirror for man's private impressions, and thoughts, but nonetheless a mirror. [\(74\)](#)

The Club des haschischins had a considerable impact on the intellectual set in Europe, and also in North

America, where it sparked off a certain amount of literary output. One of the most notable of these works was Fitz Hugh Ludlow's *The Hashish Eater* (1857).⁽⁷⁵⁾

In the last decade of the nineteenth century, alarmed at the increasing use of cannabis amongst its troops in India, the British government appointed a special scientific body, the Indian Hemp Drugs Commission, to investigate the biological and social effects of cannabis use.

In 1894 the Commission published its report, a unique scientific document of 1,281 pages in seven volumes, whose findings have repeatedly been corroborated by subsequent investigations. Its value endures to the present day.⁽⁷⁶⁾ Having exhaustively examined and described in detail all the aspects of the issue, the writers of the report drew the following conclusions:

- 1) Occasional use of cannabis can be beneficial.
- 2) Moderate use has no negative biological or psychological effects.
- 3) Moderate use is the rule, abuse is the exception.
- 4) The damage caused by abuse affects the user and no one else.

In the circumstances, as the nineteenth century drew to a close, who would have imagined that a few decades later cannabis would occupy pride of place in the chorus line of scapegoat substances, and that its users would be faced with merciless treatment at the hands of the law, with penalties ranging from a few years to life in prison, or even the death sentence in some cases?

47 C. Conrad, *Hemp: Lifeline to the Future* (1993), p.6.

48 Shintoism (Japan), Hinduism (India), Buddhism (Tibet, India, China), Zoroastrianism (Persia).

49 C. Creighton, 'On Indications of Hashish-Vice in the Old Testament', *Janus*, 8 (1902), 241-6.

50 M. Clay, 'The Song of Solomon', in Andrews and Vinkenoog, eds., *The Book of Grass* (1967), p.19.

51 J. Herer, *The Emperor Wears No Clothes* (1992), p.49.

52 Herodotus, *History*, book IV, p.89.

53 Plinius Secundus, Caius, *De Historia Natura*, 20.97

54 Dioscorides, *Materia Medica*, 3.165

55 Claudius Galen, *De Facultatibus Alimentorum*, 100.49

56 p Rabelais *The Herb Pantagruellion*, in D. Solomon, ed., *The Marihuana Papers* (1966), p.105.

57 F. Rabelais, *The Histories of Gargantua and Pantagruel*, in W. Thompson, *At the Edge of History* (1971), p.124.

58 In Arabic hashshashin means 'hashish-eater', but the word has entered the Western languages in the form of assassin, on account - according to Western historians - of the sect's extremist nature.

59 In *One Thousand and One Nights*, mention is made of a substance called benzi, whose effects are similar to those of hashish.

60 L. Lewin, *Phantastica*, p.107, ref. in E. Brecher (1972), p.2.

61 L. Grinspoon, *Marihuana Reconsidered* (1977), p.11.

62 J. Rosevear (1967), p.20, quoted in L. Grinspoon, *Marihuana Reconsidered* 1977), p.11.

63 J. Bouquet, 'Cannabis', *United Nations Bulletin on Narcotics*, 3 (1951), p.36.

64 S. Boyce, *Hemp* (1902), p.403, quoted in E. Brecher, *Licit and Illicit Drugs* 1972), p.403.

65 L. Grinspoon, *Marihuana Reconsidered* (1977), p.12.

66 G. Washington, 'Diary Notes', in G. Andrews and S. Vinkenoog, eds., *The Book of Grass: An Anthology of Indian Hemp* (1967), p.34.

67 G. Andrews and S. Vinkenoog, eds, *The Book of Grass: An Anthology of Indian Hemp* (1967), p.34.

68 C. Conrad, *Hemp: Lifeline to the Future* (1993), p.193

69 C. Conrad, *Hemp: Lifeline to the Future* (1993), p.1934. Dr Burke is president of the American Historical Reference Society and a consultant for the Smithsonian Institute.

70 According to Baudelaire, Balzac never used hashish.

71 It was later included as a chapter in *La Psychologie morbide dans ses rapport avec la philosophie d'histoire* (Paris, 1859). It is also to be found in *Hashish and Mental Illness*.

72 It was published in the medical journal *La Presse medicale* (1844), and also as a separate edition in Paris in 1846. It is also to be found in Solomon (1966), p.122, and Strausbaugh (1990), p.198.

73 Published in 1858 and included in *Les Paradis artificiels* in 1860.

74 C. Baudelaire, *Les Paradis artificiels* (1980; in Greek), p.31.

75 F. Ludlow, *The Hashish Eater* (1857); J. Scausbaugh and D. Blaise, eds., *The Drug User: Documents 1840-1960* (1990), pp.93-114. Fitz Hugh Ludlow (1836-70) wrote this work at the age of nineteen.

76 *The Indian Hemp Drugs Commission Report* (1894). The final volume (Summary) was reprinted by Jefferson Press, Silver Spings, Maryland, in 1969 (edited by Professor John Kaplan of Stanford University Law School).

Chapter Three The Age of Prohibition

A ban on any substance depends exclusively on the self-seeking choices of those who have an interest in imposing it and the power to do so.

Until the nineteenth century, mind-affecting substances included many euphoriant and therapeutic agents that played an important part in social life and occupied a privileged place in the therapeutic armoury of medical science. Alcohol, tobacco, coffee, tea, opium, marihuana, and cocaine, which were used for a variety of restorative and therapeutic purposes; morphine, which served medical needs; and many other natural products which simply had an invigorating effect made up the wide range of mind-affecting substances that were freely available until the end of the nineteenth century.[\(77\)](#)

Alcohol and opium and its derivatives have been widely used all over the world for thousands of years. Coffee was discovered in Arabia and tea in China, whence they came to America via Europe. Columbus discovered tobacco on his first voyage to America and brought it back to Europe. Marihuana was the biggest agricultural crop on the planet and served a wide range of needs. Coca was initially discovered in Mexico and soon found to exist in vast areas of Central and South America. Morphine is an alkaloid of opium that was isolated in 1805.[\(78\)](#)

The existence of all these substances was not a 'threat to society', nor was their use by the free choice of any individual perceived as an 'antisocial activity'. On the contrary, all these agents of pleasure or of therapy were socially accepted and quite in keeping with the needs and the values of Western society in the seventeenth, eighteenth, and nineteenth centuries, because they enhanced their consumers' sociability and efficiency.

Most of the major drugs that affect behaviour - in particular, marihuana, opium, and cocaine - were used to enable men to work better, harder, and longer. These drugs were to pretechnological man what machines are to technological man: they helped him to increase 'productivity' or 'output'. These facts have, of course, been brushed aside - indeed, they have been denied and falsified - by the evangelists of our modern pharmaco-mythologies. [\(79\)](#)

The supposed threat posed by drugs was invented later to justify the banning and persecution of certain substances in the service of specific economic and political interests. Unlike a ban, which automatically creates a black market and promotes the use of adulterated mind-affecting substances (which is directly detrimental both to users and to society as a whole), social acceptance and legality have always operated as a safety valve that protects both users and society.

Before the rabid campaign of persecution and repression that has swept the world in the twentieth century, many people in America and all over the world found serenity, euphoria, pain relief, and a remedy for a number of ailments in natural mind-affecting substances, which made their lives more bearable or more agreeable. Whether as popular remedies or as euphoriants, opium, cocaine, cannabis,

and their derivatives were highly prized by the medical world and were the substances of choice for many people for centuries on end, from the mediaeval serf to the modern industrial worker.

The free availability of mind-affecting substances and citizens' right to decide for themselves which, if any, of these substances they wished to consume or avoid, and how and when they would do so, came to an end in the last quarter of the nineteenth century, when the state stepped in. Using the weapons of police and penal coercion and state-arbitrated moral pretensions, the administration arrogated to itself the sole right to decide which, if any, substance its citizens would consume, and when, depending on which particular economic and political expediencies it wanted to serve at any given moment.

The intervention of institutionalised constraint in the sphere of mind-affecting substances and the concomitant suppression of citizens' fundamental right to decide for themselves whether or not they would consume any of these substances upset the established equilibrium between the substances, their consumers, and society destroyed the self-regulating mechanisms that protect individuals and society, and created a functional vacuum which enabled the state to present itself as the only agent capable of filling it and to multiply the prohibitions ad infinitum.

Before the state intervened, the individual's relationship with mind-affecting substances was a matter of personal choice and responsibility, an area in which complete freedom was exercised. Afterwards, the individual's relationship with the various mind-affecting substances became regulated by a body of laws and social policies that served a variety of ulterior motives and were born of the authoritarian notion that citizens are incapable of handling mind-affecting substances like responsible adults.

It is a notion that has been forcibly internalised and is now constantly regurgitated by thousands of infantilised adults, who implore the parent state to treat them like irresponsible babies and protect them from, of all people, themselves. To turn the state into a parent-figure and society into so many infants has always been the aim of all administrators of lawful violence, whatever their ideological and political stripe. All that changes is the means used by the power-crazed, which vary according to their needs and the technical possibilities of each particular age.[\(80\)](#)

After the ban on opium-smoking (1875-1902), which served as a pretext for subjugating and manipulating the Chinese immigrants to the United States, and the Chinese immigration ban of 1902, the so-called 'drug threat' was trotted out to justify the United States' initial sortie into the sphere of international policy (with the imposition of American control in Puerto Rico, Cuba, Guam, and the Philippines after the war between America and Spain in 1898).[\(81\)](#)

The leading political and economic circles in the United States then realised the enormous importance of prohibiting certain mind-affecting substances as a tool of domestic and foreign policy, and started to wield it extensively. In a matter of sixty years (1875-1937), a combination of economic and political interests had banned opium smoking (1875-1902), all opiates and cocaine (1914), alcohol (1920), and cannabis (1937).

The active intervention of the authorities in an area of personal choice and responsibility actually created what has since become known as the 'drug problem'. This so-called problem has in fact merely meant that the relationship between the individual, society, and mind-affecting substances has been reduced from a question of the free choice and responsibility of each individual to a matter to be regulated by the authorities. It is regulated by force by the simple expedient of transforming a means of pleasure or self-therapy into a 'threat' to the individual and to society.

1. A tool of domestic policy (1900-30)

In the United States cannabis was a freely available, socially acceptable, and widely used euphoriant and therapeutic agent until the end of the 1930s. This is attested by the fact that every edition of the official US Pharmacopoeia from 1850 to 1942 lists it as a safe remedy for a wide range of maladies.

The leaves of the female cannabis plant were first smoked in the western hemisphere in 1870, on the West Indian islands of Jamaica, the Bahamas, and Barbados. The custom was then brought to North America by Mexican and black sailors. The first written record of the use of marihuana in the United States dates from 1903 and comes from the Mexican community of Brownsville, Texas; the next dates from 1909, in the black community of Storeyville in New Orleans, which is regarded as the home of jazz. (82) After 1910 the use of marihuana began to spread into the communities of Mexican and black workers in Texas and Louisiana, and it later became associated with the jazz world, which facilitated its spread amongst Whites.

During the first decade of the twentieth century, the Mexicans and blacks who were living in the southern states under a harshly racist legal regime began to demand better living conditions.

Between 1884 and 1990, 3,500 documented deaths of black Americans were caused by lynchings; between 1900 and 1917, over 1,100 were recorded. The real figures were undoubtedly higher. It is estimated that one-third of these lynchings were for insolence, which might be anything from looking (or being accused of looking) at a white woman twice, to stepping on a white man's shadow, even looking a white man directly in the eye for more than three seconds, not going directly to the back of the trolley; etc. It was obvious to whites, marihuana caused Black and Mexican viciousness or they wouldn't dare be insolent; etc. Hundred of thousands of Blacks and Chicanos were sentenced from 10 days to 10 years mostly on local and state chain gangs for such silly crimes as we have just listed. (83)

In the circumstances, certain powerful economic factors realised that a ban on marihuana could be used as a means of marginalising and oppressing the underprivileged black, immigrant, and working-class communities and bringing them to heel, just as had been done in the past with the Chinese and the ban on opium smoking. Cannabis was not likely to prove an exception to the standard rule that penal control of a substance is a precondition for penal and political control of its users.

According to the racist propaganda that found fertile ground amongst the whites, "Mexicans and blacks under marihuana's influence were demanding humane treatment, looking at white women, and asking

that their children be educated while the parents harvested sugar beets; and other insolent demands. [\(84\)](#) By blaming marihuana for the black community's efforts to improve their situation, the whites could justify all their own atrocities against them.

And so began the first smear campaigns against cannabis led by the Hearst Group's yellow press. Their main target, of course, was the black and Mexican workers. The upshot was that various states (led by Utah and California in 1915 and Colorado in 1917) adopted measures that criminalised possession and use of cannabis and thus paved the way for a process of prohibition that grew all the more easily from the 1920s onwards in the climate of repression created by the folly of alcohol prohibition (1920-33).

By 1917, penalties for using cannabis had been instituted for the first time in Egypt (1879), Greece (1890), and Jamaica (1913). The penalties were those applicable to a misdemeanour, were imposed for cannabis use only by the lower social classes, and were justified on the grounds that it was associated with unacceptable or objectionable social conduct (vagrancy, social parasitism, etc.). But two countries, which had a similar domestic policy of discrimination, began to adopt penal measures against cannabis on the grounds that it was necessary to stamp out 'black insolence': South Africa (1911) and the United States (1915) were subsequently to lead the campaign for the prohibition of cannabis all over the world. [\(85\)](#)

However, until the early 1930s, which brought the technological and economic changes that necessitated cannabis prohibition for the benefit of the economic behemoths which controlled the new technologies, cannabis was a fundamental stabilising factor in the US economy and its products covered a wide range of everyday needs. This forced the federal government to adopt a Janus-faced policy towards cannabis in order both to shield the racist and economic expediencies served by the ban on marihuana in the Deep South and to promote the cultivation of cannabis in the north-eastern states by producing special Department of Agriculture leaflets exhorting farmers to intensify their activities in this particular sector of productions. [\(86\)](#)

The authorities and the medical community were well aware that cannabis and its derivatives were non-narcotic therapeutic agents of enormous value. This is precisely why they were not included under the restrictions imposed by the Harrison Bill of 1914, which instituted controls over the supply of narcotic substances (opiates and cocaine) used for medical purposes.

Between 1900 and 1920, American consumers were more interested in cannabis' therapeutic properties (which meant that cannabis products were legally prescribed for a host of physical and psychological dysfunctions right up until 1940) than in its euphoriant effects. But during the period of alcohol prohibition, from 1920 to 1933, they began to show increasing interest in precisely these euphoriant effects, since cannabis was a cheap, harmless substitute for the alcohol they were no longer permitted to consume. So, 'during the 1920s, marihuana tea pads - late-night smokeries similar to bars - operated in many large cities, including New York City', which were much like to the bars and coffee houses found in The Netherlands today. [\(87\)](#)

2. A tool of foreign policy (1900-30)

Following the extremely instructive experience with opium and the passage of the Harrison Bill in 1914, the US Government fully appreciated the enormous importance of the 'war on drugs' as an auxiliary tool both in implementing the domestic policy designed to manipulate minorities and the working class and in consolidating the expansionist foreign policy designed to gain control over other countries.[\(88\)](#)

After the economic crisis of 1893, the United States entered a phase of explosive development, which demanded a large-scale sortie into new markets. This necessarily presupposed the abandoning of the isolationist Monroe Doctrine and active US involvement in the international political scene.

In this context, the supplying of aid to certain countries to address the non-existent threat of drugs proved a most effective tool of political influence and control on two occasions.

It was in 1898 that the United States first adduced the 'necessity' of addressing the so-called drug threat to justify indefinitely postponing recognition of the independence of Puerto Rico, Guam, Cuba, and the Philippines and imposing US control over them (as Spanish colonies, they had rebelled and fought as US allies during the American-Spanish War of 1898 in the hope of winning their independence).

The Filipinos, having fought side by side with American troops to drive out the Spanish, thought that the United States was going to free the islands and turn the government over to them. It was difficult to convince them that the Islands were not yet ready for self-government.[\(89\)](#)

The same excuse was employed again in 1900, to justify US intervention in China during the political and diplomatic clashes between the great powers, who were trying to redistribute their spheres of influence there after the nationalist and anti-colonial Boxer Rebellion had been put down.

Having drawn the necessary lessons from these two cases, in 1908 the US devised the need for a 'worldwide crusade' against opium and its derivatives. In 1912 (at The Hague Conference) the United States undertook to lead this crusade, which, in 1925 (after the Geneva Conference), also began to target cannabis.

Until the second Conference on Opium, which was held in Geneva in 1925, the United States had been absorbed in its efforts to convince the other countries of the need to take steps against opium and had shown no interest in cannabis. But during the proceedings, the delegates from Egypt and Turkey (two countries where the cultivation of opium was a major factor in the agricultural economy and which consequently had much to lose from the ban the US was urging) tried to create a diversion by announcing that they would not subscribe to the condemnation of opium if the same treatment were not first applied to cannabis. They were counting on the disagreement of the other countries.

Not unexpectedly, Turkey and Egypt's demand was met with resistance from most of the other delegates. But the US, determined to achieve its aim as far as opium was concerned, supported the demand and

(owing to the political and material advantages it enjoyed as the only country to have emerged economically powerful from the First World War) leaned heavily on the other countries' delegations. By means of economic blackmail, the US eventually forced the participants reluctantly to accept the idea of a possible ban on cannabis for purely political, and not medical, reasons.[\(90\)](#)

So the United States found itself spearheading a campaign against both opium and cannabis together, which enabled it to impose its undisputed domination in the 'war on drugs' and to maintain it until the 1970s, when some countries (such as the United Kingdom and The Netherlands) realised the disastrous consequences of prohibition and repression and decided to take steps that went directly against the American anti-drug policy.

3. The reasons for prohibition (1930-40)

The fate of cannabis was decided solely by the combination of political, economic, and technological changes that took place in the 1930s. The plant's multitude of advantages and applications made it an appreciable, if not the only, rival to the products of a number of industrial sectors (petroleum, alcohol, tobacco, pharmaceuticals, paper), which all joined in a concerted effort to have cannabis criminalised over a period of ten crucial years (1926-36) that were marked by five landmark events.

These were:

- the creation of the Federal Bureau of Narcotics (FBN) in 1930;
- the end of alcohol prohibition in 1933;
- the invention of high-technology machines to produce paper from timber and the monopolising of the paper industry by the Hearst Group (1930-6);
- the mass influx onto the market of petrochemical products (1926-36) and nylon (1935); and
- the discovery by the pharmaceuticals industry of the means of producing mass synthetic medicines (1928-32).

All these major breakthroughs took place over a ten-year period and sealed the fate of cannabis, which was the chief threat to their products.

1) In 1930, the Federal Bureau of Narcotics (FBN) was set up. It was staffed by former prohibition agents under the notorious Harry Anslinger and played a leading role in the processes which led to the outlawing of cannabis in 1937. Sixteen years after the ban on opium and opium products (1914) and ten years after the prohibition of alcohol (1920), the terrible slump of 1929-31 led Congress to slash the FBN's budget and to reduce the number of its agents. Anslinger was terrified that the bureau would collapse. In the circumstances, the newly established bureau, which had not had time to demonstrate the 'usefulness' that would justify its place in the national budget, considered it as a matter of survival, prestige, and power to discover a new threat from which society needed its protection. This is why Anslinger and his officers in their new posts completely ignored opium and alcohol and trained their guns right from the start on cannabis, which they foresaw would open up a wide new field of activity for

them.

An executive officer for alcohol prohibition until 1930, Harry Anslinger was Director of the FBN (91) from its foundation in 1930 until 1962, when President Kennedy forced him to retire because he had tried to censor the publications of Professor Alfred Lindesmith and to intimidate Lindesmith's employers at Indiana State University. (92) He was appointed to the FBN at the suggestion of Andrew Mellon, owner of one of the two banks with which the DuPont empire was associated.(93) Anslinger's activities as Director of the FBN were wholly determined by his commitment to DuPont, his extreme right-wing and racist views, (94) and his admiration for Edgar Hoover and the FBI. He copied the organisational structure, the manner of operation, and the work style of the FBI and in his hands the FBN became the most effective tool for the institution and preservation of prohibition in accordance with the interests of his `bosses'. After he retired, Anslinger presented his personal records, covering the thirty-one years of his absolute reign over the realms of repression, to the State University of Pennsylvania.(95)

2) IN 1933, the Eighteenth Amendment to the US Constitution, which had ushered in alcohol prohibition in 1920, was repealed and the production, sale, and purchase of alcohol became legal again.

The main market rival to alcohol was the products of cannabis. And the newly established alcohol industries, in which were invested some of the profits from the organised crime that had controlled the distribution and trafficking of bootleg alcohol during Prohibition, had a vital interest in seeing these competing products wiped out.

3) IN 1935, the American company DuPont (96) put non-recyclable nylon on the market and in 1937 acquired the patent.(97) The new product's sole rival was recyclable cannabis, and consequently nylon's survival depended on whether or not DuPont could dislodge cannabis from the market. As Lamot DuPont conceded, `synthetic plastics find application in fabricating a wide variety of articles, many of which in the past were made from natural products.(98)

4) IN 1936, DuPont managed to secure the monopoly on the petrochemical products whose patents had been ceded to the US by the German company I. G. Farben as part of Germany's reparations after the First World War. By this means, 30% of the mighty I. G. Farben passed into the ownership of DuPont.

The main rival to the various products of the petrochemical industry (paints, dyes, machine oil, and fertilisers, amongst many others) was cannabis and its products, and consequently the DuPont industrial behemoth had a vital interest in seeing them banned. Without the prohibition of cannabis, 80% of the DuPont empire's businesses could not exist.

5) IN 1936, 70% of the paper produced in the United States by felling timber and destroying forests was in the hands of the companies owned by the `robber press baron' William Randolph Hearst.(99)

Prior to 1883, 75-90% of the paper used all over the world was made from cannabis. Cannabis paper is

cheaper, of higher quality, and more durable than the paper that began to be produced when technological progress made it possible to fell timber on a large scale and destroy whole forests. In the thirties, cannabis was the Hearst group's number one competitor.

6) AT THE SAME TIME, by the mid-thirties, technological advances were enabling the pharmaceutical industry to manufacture chemical products in the laboratory, with the result that companies in this sector ceased to process and sell natural pharmaceuticals and became independent manufacturers with exclusive control over the products made in their labs.

Everyday therapeutic practice in modern times had been dominated by two broad categories of natural healing agents: the products of opium and the products of cannabis. Opium products were eliminated from the therapeutic field by the Harrison Bill of 1914. Consequently, in the thirties the only rival to the pharmaceutical industry's chemical products was cannabis and its products. The consolidation of the pharmaceutical industry's interests and the transition to the era of universal medical chemical poisoning necessitated the ostracising of cannabis from the field of medicine. To achieve this goal, the pharmaceutical industry worked hand in hand with the other industrial colossi and the medical closed shop.

This perfect dovetailing of the interests of the FBN and the petrochemical, alcohol, pharmaceutical, and paper industries sealed the fate of cannabis to the advantage of this bloc of society's 'protectors' and to the disadvantage of cannabis itself, the public interest, and humanity in general. It was an unequal battle and the outcome a foregone conclusion: for the survival and increasing power of the FBNs, the DuPont, the Hearst, and the pharmaceutical and alcohol industries' empires demanded that the cultivation of cannabis cease and its use be banned in all sectors of industry - with catastrophic consequences for the environment and the world economy.

In 1935, under the guidance of DuPont executives and the Hearst Group's network of yellow-press newspapers, the FBN launched an extensive propaganda campaign against cannabis, which prepared public opinion for its forthcoming prohibition.

In 1937, the overlapping interests of the offended industrial sectors, led by DuPont and Hearst, used their influence with the government and the administration to have cannabis banned under the Marihuana Tax Act.

On paper, this act imposed a tax in the form of a special stamp that had to be affixed to any medical prescription containing cannabis products; in practice, however, it penalised the cultivation, possession, use, and distribution of cannabis and its derivatives. The stamp was exclusively issued and supplied by the Treasury, which saw to it that "the stamp was never available for private use." [\(100\)](#)

The passage of this new act made it easy for cannabis to be replaced as a raw material in the textile industry by the petrochemical products on which DuPont now had the monopoly, having acquired the patent from I. G. Farben; and it also enabled DuPont to enjoy almost total dominance in all related

sectors of production. At the same time it safeguarded the interests of the Hearst Group as the uncontested monopolist of paper production.

Fifty percent of all the toxic chemical fertilisers that are used today in the agricultural production of the US and most other countries (poisoning the soil, the water sources, and the environment in general) are used for the cultivation of raw materials for the textile industry to the exclusive advantage of the companies, with DuPont in first place, that control the production and supply of the fertilisers themselves.

Whereas cannabis had been a benison of nature for thousands of years, on the pretext of 'protecting society' its production was now prohibited and it was banned from the market. The Marihuana Tax Act of 1937 'normalised' the US (and by extension the world) economy to the benefit of the centres of economic and political power that set the United States' course. It took the alliance of the most powerful blocs in the US economy into a paradise of continually accumulating, enormous profits, while humankind entered a hell governed by chemicals and plastics.

4. The State in favour of cannabis (1942-5)

During the Second World War, after Japan had invaded the Philippines, the United States suddenly found itself cut off from the source of a raw material, which, though banned, was nonetheless of great importance for the nation's war effort. From cannabis were made the parachutes, the tents, the kit-bags, the flags, the fatigues, an extremely useful fuel, various fertilisers, and all sorts of other supplies and equipment used by the army and the air force.

The American government addressed this state of necessity by putting its self-imposed ban on the back burner, and setting its 'anti-drug' fervour aside for the time being. From one moment to the next, it stopped persecuting and started defending cannabis, transformed it from a 'murderer of young people' into 'hemp for victory', and did all it could to urge farmers to grow it.

Until the United States joined the war, any farmer who dared to grow a single cannabis bush was treated like a criminal by the judicial system and regarded by the FBI and the FBN as a threat to the nation. After the United States joined the war, the American government started exhorting farmers to grow as many acres of cannabis as they wanted, presenting it as a patriotic duty.

1) In 1942, the US Department of Agriculture circulated numerous advertising leaflets and made a special propaganda film about cannabis - significantly titled Hemp for Victory - which was shown repeatedly throughout the United States.[\(101\)](#)

2) In 1942, the US government issued a five-dollar tax stamp on cannabis, and aimed to increase the extent of cannabis cultivation to 1,400,000,000 m² in 1943.[\(102\)](#) It also supplied farmers with very cheap machinery especially for cannabis cultivation. And most astonishing of all:

3) Between 1942 and 1945, every farmer who agreed to grow cannabis for the state was exempted from military service, as were his sons.

5. The witch-hunt (1946-60)

After the war, prohibition hysteria returned with a vengeance, drawing even greater strength from its alliance with the reds-under-the-bed phobia, inflamed by the high noon of McCarthyism. Once again cannabis became a 'murderer of young people' and a 'threat to the nation'.

From then on, for several decades, the Government and the powerful financial interests subjected society to a systematic process of brainwashing by means of repeated campaigns against cannabis. The effect was that "public attitudes towards the use of marihuana were generally marked by hysteria and exaggerated claims of disastrous individual and social consequences of the use of the drug ,(103)

Under the pressure applied by Harry Anslinger and the yellow press, the states began to institute increasingly severe penal sanctions for mere possession of cannabis, and in some of them, indeed, persecution reached fever pitch. In Louisiana, for instance, "the penalty is death on the first offence, but if the jury recommends mercy, then there is a mandatory sentencing of thirty-three years to life imprisonment. Thus, in Louisiana a twenty-one-year-old man who is caught giving some pot to his twenty-year-old girlfriend may be legally executed" (104) while Texas instituted "sentences up to life in prison with ten and twenty-year sentences because they were caught with a few marihuana cigarettes. (105)

In the years following the Marihuana Tax Act, Anslinger and the FBN carried out numerous propaganda campaigns and gradually instilled public opinion with a completely distorted image of cannabis based on three fundamental misconceptions: that the use of cannabis impels people to commit violent crimes; that it leads to the use of heroin; and that it poses an enormous threat to society.

The demonising and terrorising activities carried out by the FBN, which acted like a state within a state as far as public life was concerned, stifled at birth any inclination to resist the anti-drug policy of Anslinger and his bosses. An attempt by the medical profession to react against the FBN's totalitarianism ended in an ignominious compromise: the AMA requested that the FBN not be allowed to remove cannabis from its therapeutic arsenal after 1937, and Anslinger, being responsible for seeing that the Marihuana Tax Act was observed, responded with a stream of prosecutions of doctors. On the FBN's initiative, in 1939 alone 3,000 members of the AMA were prosecuted for illegally prescribing marihuana. The blackmail campaign had the desired effect and the medical profession reached a compromise with Anslinger: over the next ten years (1939-49), the FBN instigated legal proceedings against only three doctors, while the official organs of the medical profession uttered never a word on the subject of cannabis. (106)

It is a long-standing truth that has been confirmed over and over again in the course of history that, whenever professional repressionists and the members of the prohibition brigade are confronted with an

obvious discrepancy between the mendacity of those in power on the one hand and the conclusions of experience and scientific knowledge on the other, they typically adopt a schizophrenic double-talk, which is extremely alarmist when addressed to the public and moderately frank when addressed to specialists.

The professional repressionists (of other people's liberties) used this ploy ad nauseam in order to negotiate the obstacle of the manifest discrepancy between the stereotype of cannabis projected by the theorists of its persecution and the scientific facts adduced by many intellectuals, scientists, and politicians.

During House hearings, the following exchange between the Michigan representative John Dingell and Harry Anslinger, Director of the FBN, is revealing:

Mr Dingell: I am just wondering whether the marihuana addict graduates into a heroin, an opium, or a cocaine user.

Mr Anslinger No, sir; I have not heard of a case of that kind. I think it is an entirely different class. The marihuana addict does not go in that direction.[\(107\)](#)

6. The challenge to Prohibition (1960-80)

People's accumulated observations and experience over thousands of years made it possible to assess and use the valuable, and in some cases unique, therapeutic properties of cannabis. [\(108\)](#)

Until the end of the thirties, cannabis was acknowledged as an indisputably valuable, harmless therapeutic agent which enjoyed the approval of the medical profession, the unqualified acceptance of the State, and the interest of the pharmaceutical industry, which latter was not yet in a position to manufacture synthetic medicines that could substitute for the natural derivatives of cannabis in certain therapeutic applications.

The State's attitude to cannabis was in complete accord with that of the medical profession. This is proved beyond all shadow of a doubt by the fact that every edition of the Pharmacopoeia of the United States from 1850 to 1942 lists it as a harmless medicament suitable for a wide range of ailments, and the US National Formulary and Dispensatory likewise have precisely the same attitude towards it. [\(109\)](#) The pharmaceutical industry's interest was directly related to the medical profession's and the public's demand for a safe, effective, highly rated medicament. This much is clear from the fact that a considerable number of pharmaceutical products based on cannabis had been on the market ever since the end of the nineteenth century, patented by such major names as Parke Davis, Squibb, Eli Lilly, and Burroughs Wellcome.

The course of events took a completely different turn in the thirties, with the establishment of the FBN, the passing of the Marihuana Tax Act, and the witch-hunt that followed. Yet the effusion of police and

penal repression did not completely halt scientific research into cannabis.

At the beginning of the forties, Robert Adams managed to isolate the active substance in cannabis, tetrahydrocannabinol, and opened up the way to more precise laboratory studies that led to a gradual revision of the scientific world's attitude towards `grass' and public opinion about it.[\(110\)](#)

The year 1944 saw the publication of America's first ever scientific report on marihuana, the fruit of five years of research by the ad hoc committee set up by the Mayor of New York, Fiorello La Guardia, in association with the Medical Academy of New York."[\(111\)](#)

Of the thirteen conclusions reached by the sociological-study branch of the report, two are of special relevance to the issue of crime: 1) Marihuana is not the determining factor in the commission of major crimes. 2) Juvenile delinquency is not associated with the practice of smoking marihuana.[\(112\)](#)

The publication of the committee's findings could have triggered a process that might have led to the abolition of the penal and medical control of marihuana imposed by the 1937 Marihuana Tax Act. Such a development would have gone directly against the interests of the politico-medical network of the bureaucrats who handled the medical guild's affairs, not to the doctors' but to the state's advantage. The AMA was therefore quick to oppose publication of the report, calling upon the authorities to disregard the study and "continue to regard marihuana as a menace wherever it is purveyed".[\(113\)](#)

In the early fifties, Cold War hysteria helped the secret services to associate illegal drugs with the `Communist conspiracy':

Congress decreed mandatory minimum sentences for narcotic offenders in an emotional atmosphere similar to the years of the first Red Scare. Hale Boggs's bill, which contained mandatory sentences, was passed in 1951 at the beginning of the McCarthy era and fears of Soviet aggression, the `betrayal' of China to the Communists, and suspicion of domestic groups and persons who seemed to threaten overthrow of the government. Narcotics were later associated directly with the Communist conspiracy: the Federal Bureau of Narcotics linked Red China's attempts to get hard cash, as well as to destroy the Western society, to the clandestine sale of large amounts of heroin to drug pushers in the United States.[\(114\)](#)

The penal sanctions for offences covered by the drug legislation became horrifically harsh and all research into the therapeutic uses of cannabis came to a complete halt, not to be resumed until ten years later, when the draconian restrictions slackened somewhat.

Under Hale Boggs' Bill, which was passed in 1951, when the morphine-addicted Senator McCarthy (whose supplier was none other than Anslinger himself)[\(115\)](#) was at the height of his power, possession and use of any illicit substance was punishable by a term of imprisonment ranging from five years to life, depending on whether it was a first or a second offence. The sale of heroin by adults to minors

under eighteen carried the death sentence.

But despite the intensity of the persecution, at the end of the fifties marihuana and various other mind-affecting substances began to gain a certain popularity amongst middle and upper-class young people, whose social position and level of education made them less receptive to the wild scaremongering of the FBN's anti-cannabis propaganda. It soon became apparent that the repressive absurdity of including cannabis in the same category as addictive substances, banning it, and persecuting its users was in fact promoting, rather than preventing, its diffusion and helping to link it with the protest movement which sprang up in North America and spread all over the world in the 1960s.

The emergence of cannabis from the ghetto to which its persecutors' holy fervour had consigned it led to a change of attitude in a large segment of the population and reactivated the scientific world's interest in it. So, as young people were discovering the euphoriant properties of cannabis and promoting its use as a gesture of defiance against the conformist adult world, the medical profession was rediscovering its therapeutic properties and advancing increasingly persuasive scientific arguments that completely pulverised the prohibitionists' fictions.

These two mutually defining processes had a decisive influence on society's gradual change of attitude towards illicit substances in general, not just towards cannabis, which is not a narcotic in the medical sense of the term.

IN 1965, the United Nations' Drugs Commission published a catalogue of 2,000 studies of cannabis, 377 of which had been carried out before 1623 and the rest after 1900. As far as the scientific studies are concerned, an average of 120 titles per decade were published between 1880 and 1929, 300 titles per decade between 1930 and 1959,[\(116\)](#) and 500 titles per decade after 1961. Between 1965 and 1980, more than 3,000 research studies on cannabis were published.

IN 1967, the US government financed a wide-ranging, long-term research programme on cannabis to the tune of five million dollars. It involved one thousand researchers from all over the world working on sixty research projects, under the aegis of the National Institute on Drug Abuse, a government organisation which is part of the US Department of Health. The NIDA published the findings of that mammoth effort nine years later, in 1976.[\(117\)](#)

IN 1968, the British government's Advisory Committee on Drug Dependence published its report on cannabis, commonly known as the Wootton Report, [\(118\)](#) which was described by most of the scientific community as 'one of the first contemporary attempts to summarise our state of scientific knowledge and to review the social implications of cannabis use'.[\(119\)](#)

IN 1970, the Canadian government's Commission of Inquiry into Non-Medical Use of Drugs, known as the LeDain Commission, published its important Interim Report. [\(120\)](#)

IN 1970, Lester Grinspoon, Professor of Psychiatry at Harvard Medical School, published his pioneering study, *Marihuana Reconsidered*, in which he summarised present scientific knowledge about cannabis and exploded the myths and scaremongering of those who would repress it. [\(121\)](#)

IN 1971, the New York Academy of Sciences held an interdisciplinary conference to discuss the biological effects of marihuana and its use as a means of social control. The conference established that from a medical point of view, marihuana is less harmful than alcohol, tobacco, and a number of medicaments, such as barbiturates) and argued that "an individual should not be punished by criminal law for risking his own health."[\(122\)](#)

IN 1971, the US Department of Health, Education and Welfare published its first annual report to Congress, titled *Marihuana and Health*.[\(123\)](#)

IN 1972, that reputable body, the US Consumers' Union, published its extremely interesting report *Licit and Illicit Drugs*, edited by Edward Brecher.[\(124\)](#)

IN 1972, the National Commission on Marihuana and Drug Abuse published its sensational report, *Marihuana: A Signal of Misunderstanding*, which was followed a year later by *Drug Abuse in America: A Problem in Perspective*.[\(125\)](#) In 1973, Professor Tod Mikuriya of the University of Berkley in California edited a unique publication titled *Marihuana: Medical Papers 1839-1972*, which included the most important medical works on cannabis written between 1839 and 1972.[\(126\)](#)

IN 1976, the National Institute on Drug Abuse (NIDA) published the findings of the international research programme it had started in 1967 and organised, funded, and overseen. The two volumes of *Pharmacology of Marihuana* exhaustively analyse the chemical, metabolic, cellular, immune, hormonal, genetic, reproductive, neurophysiological, and neuro-pharmacological effects of cannabis, its effects on behaviour, the consequences of long-term use, and its therapeutic properties. [\(127\)](#)

IN 1976, Drs Sidney Cohen and Richard Stillman published *The Therapeutic Potential of Marihuana*, a "hopeful prognosis for using cannabis in numerous medical applications". [\(128\)](#)

IN 1975-7, the results were published of long-term comparative studies of chronic users of cannabis conducted in Jamaica,[\(129\)](#) Costa Rica, [\(130\)](#) and Greece.[\(131\)](#)

7. The period of tolerance (1970-80)

The early 1970s saw the start of a period of tolerance of illicit substances in general and cannabis in particular. The constant publicity given to the findings of scientific research contributed to a steady strengthening of the groundswell of public opinion in favour of decriminalising cannabis and its derivatives, which was joined by many independent foundations, organisations, citizens' associations,

medical societies, and prominent figures in the scientific, literary, artistic, and theatrical worlds. Increasing numbers of people gradually came to appreciate the dead-end effects and the disastrous individual and social consequences of a policy of rigorous repression of illicit substances, and this triggered developments on two levels.

On the administrative level, first of all, many governments began to ponder, while others decided to re-assess their present penal policy and adopt a medicosocial model for addressing illicit substances and their users. The Netherlands led the field in this respect, modifying its legislation on opium in 1976. On the other level, that of the active citizenry, an intellectual and political stance began to evolve, which would soon form the basis of an anti-prohibition movement in the United States that spread to the rest of the world in the 1980s.

Having played a leading part in the worldwide 'anti-drug crusade' ever since 1914, the United States was naturally the main arena for the confrontation between the supporters and the opponents of repression. By the early '70s they had grouped themselves into two clearly defined camps.

The opponents of repression, who wanted the repressive controls on illicit substances lifted, included the American Public Health Association (APHA), the American Bar Association (ABA), the Civil Liberties Union (CLU), the Consumers Union, the Medical Academy of New York, the National Organization for the Reform of Marihuana Laws (NORML), the Alliance for Cannabis Therapeutics (ACT), and thousands of academics, doctors, psychiatrists, judges, magistrates, lawyers, writers, journalists, artists, and Nobel Prize-winning scientists. In the '70s, just about all the creative people of any note in the literary, artistic, and scientific worlds were in favour of a revision of the repressive legislation against illicit substances.

Those who supported prohibition and wanted repression maintained and even intensified included the representatives of reactionary -economic and political circles, anti-drug squads, and ever-fretful parents and guardians, all together in a solid and historically unchanging alliance: the Federal Bureau of Narcotics (FBN), which later became the Drug Enforcement Administration (DEA), the International Association of Chiefs of Police (IACP), and the Partnership for a Drug Free America (PDFA). They indulged in public displays of strength, supported by far-right organisations and a number of well-known personalities, including Gabriel Nahas, Lyndon LaRouche, Ross Perot, Peggy Mann, and Robert Heath.

GABRIEL NAHAS, Professor of Anaesthesiology at Columbia University and, by his own admission, committed to the war on cannabis, is the blue-eyed boy of the DEA and the professional crusaders against narcotics, who trumpet his 'scientific' work on cannabis ad nauseam.

Gabriel Nahas and Lyndon LaRouche, agents of the OSS (now the CIA) participated in the cover-up of Nazi war crimes of Austrian politician Kurt Waldheim. They and others derived political leverage from it during Waldheim's rise to the United Nations Secretary General. Despite a professional scandal (for his fraudulent report of a cannabis death in Belgium, 1971) and lack of qualifications, Nahas was put in charge of all United Nations grant money for cannabis research, at the suggestion of Waldheim's

daughter. His 1971 appointment to its Narcotic Control Board staff entrenched him in the narcotic control bureaucracy for a decade. [\(132\)](#)

At a special press conference in 1975, the University of Columbia dissociated itself from Nahas' work on cannabis, thus giving some indication of his credibility.

ROSS PEROT, a businessman from Dallas, finances a number of extreme right-wing movements and is chairman of a Texas committee against drugs. PEGGY MANN, a professional crusader, is the author of *Marihuana Alen*, [\(133\)](#) which "became the Mein Kampf of cannabis prohibition. [\(134\)](#) And ROBERT HEATH, Professor of Psychiatry and a CIA collaborator from 1950 onwards, has headed several of the CIA's 'personality-stripping' programmes. [\(135\)](#)

At this point I should like to draw the reader's attention to the Randall case, which played an important part in legalising research into the therapeutic properties of marihuana and the acquisition of a new therapeutic agent. In 1972, the Sociologist ROBERT RANDALL was diagnosed with glaucoma and underwent conventional therapy with the available drugs; but the treatment was unsuccessful. In 1974, he volunteered to take part in research being undertaken by Professor Robert Hepler and his condition improved considerably. In 1975, Randall was arrested for growing cannabis and possessing marihuana for his personal use, and the conflict between scaremongering and science was raised to a judicial level. The court accepted the validity of the medical reasons why the accused needed to take cannabis and gave him the right to continue taking it on the basis of a research protocol drawn up by his doctors. And so, since 1978, the marihuana Randall needs has been supplied by the Federal Government [\(136\)](#)

8. Legislating for tolerance (1970-80)

All these developments helped gradually to dispel the myths and prejudices that the prohibition brigade's propaganda campaigns had implanted in people's minds, accelerated a change in popular attitudes towards cannabis, led to a revision of the sanctions imposed for possession and use of cannabis, and, finally, sparked off scientific research. This amassed an enormous volume of material, which helped to re-establish cannabis as a non-harmful euphoriant and as a useful medicament for many conditions for which there is no effective alternative treatment or, if there is, it is accompanied by serious undesirable side-effects.

On the basis of these findings, many countries, the US Federal Government, and thirty-four American states changed their legislation on cannabis and $\Delta 9$ -THC.

In 1970, the US government passed the Controlled Substances Act (its official title was the 'Comprehensive Drug Abuse Prevention and Control Act'), which made possession and use of cannabis no longer a crime but a misdemeanour. Subsequently, between 1970 and 1977:

1. ALL THE STATES considerably reduced the penalties for possession and use of cannabis.

2. ELEVEN STATES decriminalised [\(137\)](#) possession of small quantities of cannabis for personal use: Oregon in 1973, Alaska, Colorado, and Ohio in 1975, California, Maine, and Minnesota in 1976, Nebraska, Mississippi, North Carolina, and New York in 1977.

3. ALASKA decriminalised the possession and consumption of marihuana by adults in May 1975, by decision of its Supreme Court. The decision stated that:

The use of marihuana does not constitute a public health problem of any significant dimension. It appears that effect of marihuana on the individual are not serious enough to justify widespread concern, at least as compared with the far more dangers effects of alcohol, barbiturates, and amphetamines. [\(138\)](#) The Court held: thus, we conclude that citizens of the State of Alaska have a basic right to privacy in their homes under Alaska's constitution. This right to privacy would encompass the possession and ingestion of substances such as marihuana in a purely personal, non-commercial context in the home unless the state can meet its substantial burden and show that proscription of possession of marihuana in the home is supportable by achievement of a legitimate state interest.

Marihuana possession and consumption by adults in their homes was held to be a constitutionally protected activity under the Alaska state constitution's right of privacy provision in a unanimous 1975 decision by the Alaska State Supreme Court (*Rauin v. State* 537 P.2d 494, Alaska 1975). The court held that the state constitution's explicit privacy clause requires that the state government be prohibited from penalising adults within that state for using marihuana in private. Thus, "for nearly 16 years, adults in Alaska enjoyed the legal right to choose whether or not to use marihuana without fear of punishment by the government for doing so. But on Nov. 6, 1990, a slim majority of the voters passed ballot measure II, a statute proposed through the initiative process, which purported to restore criminal penalties for private marihuana use by adults. Whether this attempt to recriminalize marihuana use will withstand constitutional scrutiny is the subject of litigation now before the Alaska Courts." [\(139\)](#)

4. NEW MEXICO legalised the use of cannabis for medical purposes and between 1978 and 1992, 37 states enacted legislation recognising the valid medical uses of cannabis. [\(140\)](#)

USA: LEGALISATION OF CANNABIS FOR THERAPEUTIC USES

State	Bill Number	House Vote		Senate Vote		Signed
		Yes	No	Yes	No	
Alabama	S.B. 559	58	3	22	5	July 1979
Arizona	H.B. 2020	54	7	24	6	Apr. 1980
Arkansas	Act 8	86	2	28	0	Apr. 1981
California	S.B. 184	61	13	30	5	July 1979
Colorado	H.B.1042	60	0	30	4	June 1979
Connecticut	H.B.5090	117	28	27	9	July 1981
Florida	H.B. 1237	96	6	N	N	June 1978
Georgia	H.B. 1077	158	6	50	0	Feb. 1980
Illinois	H.B. 2625	140	16	45	4	Sept. 1978
Iowa	H.F. 512	68	23	43	4	June 1979
Louisiana	H.B. 1187	84	7	U	U	July 1991
Maine	H.B. 665	121	17	23	8	Aug 1979
Massachusetts	S. 1582	11	U	U	U	Dec. 1991
Michigan	S.B.185	100	0	29	5	Oct. 1979
Minnesota	H.F.2476	75	57	48	12	Apr. 1980
Montana	H.B.463	87	1	V	V	Apr. 1979
Nevada	S.B.470	38	2	19	1	June 1979
New Hampshire	S.R.21	V	V	V	V	Apr. 1981
New Jersey	A.B.819	67	0	32	0	Mar. 1981
New Mexico	H.B.329	53	9	33	1	Feb. 1978
New York	S.B.1123-6	145	2	60	0	June 1980
North Carolina	H.B.1065	108	1	V	V	June 1979
Ohio	S.B.184	87	7	28	2	Mar. 1980
Oklahoma	S.R.7	V	V	V	V	Mar. 1981
Oregon	H.B.2267	50	10	27	3	June 1979
Rhode Island	H.B.79.6072	100	0	40	10	May 1980
South Carolina	S.B.350	V	V	V	V	Feb. 1980
Tennessee	H.B.314	77	16	30	2	Apr. 1981
Texas	S.B.877	N	N	20	6	June 1979
Vermont	H.B.130	V	V	V	V	Apr. 1981
Virginia	S.B.913	50	37	23	15	Mar. 1979
Washington	H.B.259	92	5	43	2	Mar. 1979
West Virginia	S.B.366	52	48	23	10	Mar. 1979
Wisconsin	L.B.697	77	19	32	1	Apr. 1982

N: Non-record vote V: Voice vote U: Unavailable numbers of vote

Source: Robert Randall & Alice O'Leary, *Marihuana as Medicine: Initial Steps* (Washington, DC, Galen Press, 1993, pp. 53-4)

Many countries moved towards decriminalising the use of cannabis and some (Britain, Denmark, Germany, Ireland, Italy, The Netherlands, New Zealand, Norway, Spain, and Switzerland) enacted special liberal measures.

1) ITALY revised its legislation on drugs in the early '80s, and in 1989 the Italian parliament decriminalised the procurement and possession of small quantities of all illicit substances for personal consumption. The term 'small quantities' was not defined, however, with the result that the number of addicts held in prison shot up (they numbered 12,500 in May 1991).

On 13 January 1993, the Italian government decided to decriminalise the use of all drugs, and defined a 'small quantity' as the amount sufficient for a dependent user's needs for three days. Possession of more than three days' doses is punishable by loss of a driving licence for one to three months for mild drugs and two to four months for hard drugs; the local prefect is empowered to make persistent offenders attend a detoxification programme. On 18 April 1993, the Italian people upheld decriminalisation in a multiple referendum which overturned the political scene that had dominated Italy ever since 1948.

2) GERMANY decriminalised the possession of small quantities of cannabis for personal consumption in 1994.

The comparative statistics released by the state of California for the first six months after decriminalisation revealed:

1) A fall in the annual increase of cannabis use. The annual increase of occasional use fell from 2.9% in 1968-75 to 2.2% in 1975-6; and the annual increase of regular use fell from 1.1 % to 0.8 % over the same period.

2) A fall in prosecutions by some 50%: from 27,000 in the first half of 1975 to 14,000 in the first half of 1976.

3) A fall in prosecution and court expenses by some 75 % : from 17 million dollars in the first half of 1975 to 4.3 million dollars in the first half of 1976.[\(141\)](#)

In view of the circumstances, President Jimmy Carter made a historic speech to Congress in August 1977, in which he outlined the attitude the federal authorities should henceforth adopt towards illicit substances and cannabis:

Penalties against possession of a drug should not be more damaging to an individual than the use of the drug itself, and where they are, they should be changed. Nowhere is this more clear than in the laws against possession of marijuana in private for personal use. [\(142\)](#)

Carter's policy was not intended to do away altogether with the folly of prohibition, but simply to rationalise the legislation covering prohibition in response to pressure both from the general public and from a sizeable proportion of the scientific world, who were publicly demonstrating their refusal to accept that the conclusions of scientific research be sacrificed on the altar of repressive hysteria.

In his efforts to reconcile the interests of the economic circles that were sustaining prohibition with the demand of millions of American citizens that an absurd policy of repression be lifted, Carter pursued an ambiguous course which ranged between the two extremes of abolishing penalties for possession and use of marihuana on the one hand and 'Operation Paraquat' on the other. The latter scheme was devised in 1975 and involved spraying all cannabis and opium poppy plantations with an extremely dangerous poison, first on the territory of neighbouring countries (starting with Mexico in 1977) and then within the United States. To carry out his drug policy, President Carter appointed as his 'drug tsar' [\(143\)](#) Peter Bourne, a psychiatrist whose controversial career was perfectly in keeping with the controversial policy he undertook to enforce.

PETER BOURNE had been sent by the Pentagon on a special mission to Vietnam in 1965 as advisor to the Green Berets (who awarded him the silver star). At the same time he was masquerading as an activist in the movement against the war. He took part in the planning of Operation Paraquat and at the same time was a fellow-traveller in the movement to revise the legislation on marihuana. He condemned barbiturates and at the same time procured them (which was the

reason for his 'dethronement' in 1978). He paternalistically excoriated users of illicit substances and at the same time was an occasional user himself of marihuana and coca (as revealed by the New York Times). In 1962, he graduated from medical school in Atlanta; in 1965, he worked for the military secret services in Vietnam; in 1971, Nixon appointed him Deputy Director of the White House Drug Task Force; in 1974, as president of the one-man International Research Institute, he travelled the world offering 'special advice' to anyone prepared to pay him for it. In 1976, he was crowned drug tsar, when Carter appointed him as his special advisor and Director of the White House Narcotics Bureau. In 1977, he approved the DEA's project to spray marihuana and opium poppy plantations in Mexico with lethal Paraquat. And in 1978, he was toppled from power when the Washington Post accused him of being a 'user and pusher of drugs' (19 July 1978).

The Carter administration's timid attempts to rationalise the repressive legislation were seen as a terrible threat by the supporters of prohibition, who tried to pre-empt the probable developments prescribed by President Carter's speech. The elimination of Bourne was a clear enough message, for, apart from being one of Carter's chief advisors, he was also his personal physician. Bourne's fate was sealed in February 1978, when he conveyed the mood of the Carter administration from the national to the international level.

He addressed the United Nations Commission on Narcotic Drugs regarding United States drug policy. He did not specifically mention decriminalization, a process that some nations either had difficulty understanding or frankly opposed, but he called attention to the fact that priority of attention would be given to those drugs that caused the greatest threat to life.[\(144\)](#)

For the combined interests of the petrochemical, paper, pharmaceutical, alcohol, and tobacco trusts, organised crime, the prosecution authorities, and a host of people who had made their careers as professional crusaders against drugs, the danger of their being put out of commission if the Carter

administration's attitude towards marihuana were internationalised was now obvious and immediate.

The DEA decided to publicise the Long case on 19 July 1978.[\(145\)](#) Bourne then resigned and any talk of reform in the government ceased abruptly, thus heralding the end of the 'age of tolerance' and the dawn of a new phase of anti-drug hysteria, which would be dominated by an erstwhile informer yelping 'Just say no', and an ex-secret service agent hollering 'Zero tolerance'.

9. Back to the past: 'Just say no' (1981-8)

After 1978 the political climate in the United States began to change. Energy problems and the recession were causing unrest; people were starting to turn towards the champions of neoliberalism; and developments abroad, as the balance of power the United States had engineered in various vital areas of the planet was upset (in the Middle East, for instance, with the establishment of a theocratic regime in Iran), were engendering an alarm and insecurity that made the electorate increasingly conservative in its attitudes. This found political expression in 1980, when Ronald Reagan was elected President of the United States.

RONALD REAGAN, a former film actor, an informer for the secret services, a betrayer of many of his colleagues to the Committee of Un-American Activities, and an associate of the notorious morphine-addicted Senator McCarthy and his assistant Richard Nixon during the Cold War, proved to be the right man to express the new political climate that was developing at that time in the United States.

During his first term (1981-4), Reagan tried to impress public opinion by implementing a repressive policy that was ostensibly intended to reduce the supply of illicit substances. Its key aims were:

- 1) To apply pressure on various foreign governments to make their drug legislation stricter.[\(146\)](#)
- 2) To increase the powers of the DEA and reduce the 'legal obstacles' to its activities.
- 3) To extend 'Operation Paraquat' by spraying cannabis and opium poppy plantations not only in neighbouring countries but within the United States too.
- 4) To increase the budget for equipping other countries' drug task forces.
- 5) To continue the financial aid programmes for replacing poppy, coca, and cannabis plantations.
- 6) To attempt to force scientists to destroy the protocols, documents, and findings of all the investigations into the biological effects of marihuana conducted between 1966 and 1976 with government permission and funding.

Whichever way one looks at this doomed policy, which increased rather than decreased supply, it did

have one very special and historically unprecedented aspect; and that was the cold-blooded murder of marihuana users who unknowingly smoked grass that the DEA had sprayed with Paraquat. The long arm of the unscrupulous criminals masquerading as protectors of society caused and established a brand new category of deaths: those caused by marihuana with a Paraquat coating, a new lethal product launched onto the market by the DEA.

In 1981, on the recommendations of George Bush and Nancy Reagan, President Reagan appointed Carlton Turner Director of the White House Narcotics Bureau. The standard of Ronald and Nancy's anti-drug policy is clearly reflected in the curriculum vitae of the man they chose as their 'drug tsar'.

CARLTON TURNER was a careerist with a 'business mind'. In 1978 he tried to market a fake Paraquat test. In 1981, Reagan appointed him Director of the White House Narcotics Bureau, and from then until 1986 he relentlessly targeted jazz and rock music and made unsuccessful efforts to ban radio and TV networks from broadcasting it, obsessed as he was by the idea that it was the main reason behind the 'drug problem'. On 25 April 1985, he demanded the death penalty for 'drug traffickers'. On 27 October 1986, Newsweek mounted an acrimonious attack on him, as a result of which he was forced to resign on 6 December 1986. Having taken advantage of every microphone that was offered to him to declaim that the use of marihuana led to homosexuality, depressed the immune system, and caused AIDS, Turner then worked with Robert DuPont and the former Director of the NIDA, Peter Bensinger, to market a test for detecting cannabis in urine.

Between 1981 and 1983, the DEA sprayed marihuana plantations in Georgia, Kentucky, and Tennessee with Paraquat, and this led to the 'inexplicable' deaths of many users. In 1983, in a vain attempt to defuse public outrage when the truth came out and to play down the government's responsibility, Turner appeared on national television and, having first contested that the deaths had in fact been caused by Paraquat (which had been proven by state organisations and state laboratories), he then proceeded to justify the DEA's activities by claiming that if the victims had indeed been killed by Paraquat they had only themselves to blame for smoking a prohibited substance in the first place.

In 1983, the US government was forced publicly to condemn the use of Paraquat for spraying plantations and to announce that Paraquat would henceforth be prohibited for that purpose. The trouble was that the ban was never enforced, and in 1993 government planes were still shedding that dangerous poison over vast areas of the United States and certain neighbouring countries. [\(147\)](#)

In September 1983, the President's office wrote to all the universities in an effort to sound out their intentions and likely reactions to the proposed destruction of the data from all the cannabis research conducted between 1966 and 1976, including the synopses in the university libraries. [\(148\)](#) It was all research that had been undertaken with government permission and government funding. All the documents were public records, and their destruction would constitute a violation of the restrictions the Constitution laid upon the executive powers. The reasoning behind these machinations, so reminiscent of the practices of Nazi and Communist totalitarianism, is obvious.

Between 1966 and 1987, 10,000 investigations into cannabis had been carried out, and only twelve of them had produced negative conclusions about the 'forbidden plant'. The findings of those twelve had never been corroborated when other researchers repeated them. The whole of this vast mass of research material proved that the state's policy of repression of cannabis was totally at odds with the scientific facts and that the prohibition of cannabis was based not on scientific criteria but on self-interested financial and political ones. Consequently, if it were to maintain the policy of repression and return to the good old days of the witch-hunt, as it wanted to do, the President's office needed to get rid of all those bothersome scientific data that gave the lie to everything it said.

During Reagan's second term (1985-8), the resounding failure of the presidential policy to reduce the supply of illicit substances could no longer be ignored and was being criticised by most of the American press. So Reagan's anti-drug squad dropped it and adopted another, in an attempt this time to target demand for the said substances. All that this meant was that persecution now focused on use and users, rather than on dealing and dealers.

So for the first time in human history an 'international crusade against drugs' was organised, the publicly proclaimed target of which was not the dealers but the users of illicit substances. Its revealing slogan, 'Just say no', was, of course, addressed exclusively to users. 'Just say no': in other words, since we can't get at the supply, i.e. the dealers, let's wipe out the demand, i.e. the users.

10. Persecution frenzy: 'Zero tolerance' (1989-92)

In 1989, George Bush took over the presidency from Reagan. He appointed William Bennett Director of the White House Drug Bureau and put him in charge of the presidential 'anti-drug' policy, chiefly within the United States, and Melvin Levitski Undersecretary of State for drugs, who was responsible for implementing the policy abroad.

WILLIAM BENNETT, addicted to alcohol (daily 'social' use) and nicotine and a rabid opponent of marihuana, had no particular knowledge of drugs; but he was admirably suited to the organising of all the presidency's dirty work in relation to them. During his reign, he bombarded public opinion with 'anti-drug' clichés and, needless to say, he was zealously in favour of the death penalty for dealers. 'I have no moral problem with hanging dealers,' he said. 'My only problem is legal.' MELVIN LEVITSKI was closely involved with the secret services and the DEA and was thus in a position to apply pressure upon such international organisations as the UN and the EC, and particularly upon the governments of various countries, in his efforts to persuade them to adopt George Bush's 'Zero tolerance' policy.

GEORGE BUSH, addicted to benzodiazepine (Halcion),[\(149\)](#) was an agent and later Director of the CIA (1975-7), after which he was appointed a director of the Eli Lilly pharmaceutical company (1977-9) by the father of his future vice-president Dan Quayle, whose family controls the company. The Bushes have close links with the pharmaceutical industry and own a significant number of shares in Eli Lilly, Abbott, Bristol, and Pfizer. As director of Eli Lilly & Co., G. Bush "owned \$145,000 worth of stock in the drug company. He lied on April 14, 1982, that he had sold his 1500 shares in 1978. It was, in fact,

still his single most valuable stock holding."[\(150\)](#)

From 1981 to 1988, Bush was director of Reagan's Drug Task Forces and at the same time Vice-President of the United States. In this dual capacity he was implicated in cocaine trafficking,[\(151\)](#) and did his best to promote Eli Lilly's interests in South America, particularly in Puerto Rico, by no end of unfair practices, for which he was called sharply to heel by the US Supreme Court in 1982.[\(152\)](#) As President (1989-92), Bush continued Reagan's 'six-point' drug policy, merely changing the slogan from 'Just say no' to 'Zero tolerance' (of users).

Within the United States, he stepped up the repressive measures, armoured the forces of repression both financially and legislatively, and doubled the prison population. Between 1988 and 1991, the budget for the forces of repression was increased by \$4,000 and their unconstitutional (and therefore illegal) activities were 'legalised' by a string of presidential regulations. Arrests for mere possession of marihuana went up from 324,000 in 1988 to 390,000 in 1990.[\(153\)](#) In this way Bush kept one part of the twofold promise he had given to the American people when he announced his drug policy on 5 September 1989: that he would solve the drug problem by sending all dealers to jail. During his presidency, over 500,000 users were arrested and imprisoned annually (400,000 were users of cannabis), and the only result was that the drug problem got worse and the prison population doubled.

Outside the United States, Bush used the 'war on drugs' as a foreign-policy tool, and in the name of protecting humankind from the danger of drugs he 'legalised' the drug trade as a source of revenue that could be used to overthrow regimes that were in Washington's bad books and to further the United States' right to invade other countries' territory.

With full presidential cover, top-ranking state officials supplied the Contras in Nicaragua with laundered money to help them in their efforts to overthrow the Sandinista regime. On the President's orders, the US army invaded Panama, and toppled and arrested the dictator Manuel Noriega, a former CIA agent and high-ranking member of the international consortium of organised crime that controls traffic in illicit substances. The link between Iran and Nicaragua, Granada and Panama clearly reveals the real purposes behind the unified policy of 'arms for drugs' implemented by Reagan and Bush, the undisputed leaders of the 'world crusade against drugs'. Particularly in view of the fact that all the protagonists in the policy (those eminent crusaders Oliver North, John Hull, John Poindexter, General Secord, Lewis Tambs, and many other members of the American secret services) are now wanted by the Costa Rican authorities because of their extensive drug trafficking in that country.[\(154\)](#)

In 1991, the United Nations transferred synthetic Δ 9-THC from Schedule I to Schedule II of controlled mind-affecting substances, but cannabis stayed on Schedule 1, after intensive lobbying by Melvin Levitski on Bush's orders.[\(155\)](#)

Proffering the excuse that Δ 9-THC 'has proven medical benefits and is not widely used outside legitimate medical channels', whereas cannabis 'is used illegally by millions of people worldwide', the

US government placed the control of the profits from the production and supply of synthetic $\Delta 9$ -THC securely in the hands of the synthetic pharmaceutical industry (which would never have been possible with natural cannabis).[\(156\)](#) One of the companies that stood to gain considerably from the arrangement was Eli Lilly.

Synthetic $\Delta 9$ -THC was put on Schedule II of controlled mind-affecting substances because, like all synthetic pharmaceuticals (most of which are extremely toxic, hazardous rubbish), for the last seventeen years it has been the exclusive monopoly of the pharmaceutical companies that produce it and make an enormous profit from it. Cannabis stayed on Schedule I because it is a natural product and as such its production and supply cannot be monopolised by the pharmaceutical companies.

In 1988, after two years of hearings on marihuana's therapeutic benefits `for individuals undergoing cancer chemotherapy and for multiple sclerosis patients', the DEA's Chief Administrative Law Judge, Francis L. Young, ruled that current federal policies prohibiting marihuana's medical use are `unreasonable, arbitrary and capricious', and urged the DEA to reclassify marihuana to reflect its medical uses.

The evidence in this record clearly shows that marihuana has been accepted as capable of relieving the distress of a great number of very ill people, and doing so with safety under medical supervision. It would be unreasonable, arbitrary, and capricious for the DEA to continue to stand between those sufferers and the benefit of this ,substance in light of the evidence in this [\(157\)](#)

But shortly after George Bush took office in 1989, the head of the DEA, John Lawn, rejected the 1988 recommendation of his own agency's top administrative law judge, and marihuana still remains on Schedule I, proving that the marihuana issue is primarily a political issue rather than a medical one.

The criticism the American press unleashed against the deplorable farce of Reagan's and Bush's `drug crusades' focused on their resounding failure, their immensely destructive side-effects on American society, and their enormous cost, which was overwhelming even for a wealthy nation like the United States.

The reaction of American society to its two presidents' `drug war' games is accurately reflected in the titles of some of the articles published in the American press between 1985 and 1990:

`Legalize Dope' William F. Buckley (Washington Post, 1 January, 1985)

'Let's Quit the Drug War' David Boaz (New York Times, 17 March, 1988)

`Once Again, a Drug-War Panic' D. Bandow (Chicago Tribune, 22 March, 1989)

`Why Not Try Decriminalization?' Richard Cohen (Washington Post, 12 April, 1988)

'We're Losing the Drug War' Hodding Carter III (Wall Street Journal, 13 Because Prohibition Never Works' July, 1989)

'Legalizing Drugs-Step No. 1' Kiddare Clarke (New York Times, 26 August, 1989)

'A Worthless Crusade' Rufus King (Newsweek, 1 January, 1990)

77 Such as the cola nut, which was discovered in western Africa and taken to America, where it was used as an ingredient in cola drinks; and the plant ilex from Brazil and other countries, which was passed on by the northern Native Americans to the White colonists, who made from it a drink they called 'black drink' or 'dahoon'.

78 In America, morphine salts were first produced and sold in 1832 by the Philadelphia firm of Rosengarten & Co. (from which later emerged the well-known pharmaceutical company Merck, Sharp, & Dohme).

79 T. Szasz, *Ceremonial Chemistry* (1975), p.75.

80 K. Grivas, *Oppositional Psychiatry* (1989; in Greek), p.16.

81 The use of the 'war on drugs' as a tool of domestic and foreign policy is analysed in greater detail in K. Grivas, *Prohibition: A Tool of Domestic and Foreign Policy* (at press)

82 Storeyville is the birthplace of Buddy Bohler, Buck Johnson, Louis Armstrong, and many other outstanding jazz musicians.

83 J. Herer, *The Emperor Wears No Clothes* (1992), p.67.

84 J. Herer, *The Emperor Wears No Clothes* (1992), p.67.

85 South Africa and Egypt later spearheaded an international campaign to have cannabis banned worldwide.

86 US Department of Agriculture, *Bulletin No 404, Hemp Hurds as Paper-making Material* (Washington DC: Government Printing Office, 14 October 1916).

87 C. Carroll, *Drugs in Modern Society* (1993), p.327.

88 D. Musto, *The American Disease: Origins of Narcotic Control* (1987), pp. 8, 19, 24-53.

89 D. Musto, *The American Disease* (1987), p.25

90 Gabriel Nahas, one of the leading lights of the postwar anti-drug campaigns, effectively concedes as much when he writes, with reference to the Conference, that 'cannabis was put on the forbidden list, not because of medical reasons, but because of social ones' G. Nahas, *Keep off the Grass* (1990), p.35.

91 Which became the DEA in 1971.

92 A. Lindesmith, 'The Addict and the Law', in D. Solomon, ed., *The Marihuana Papers* (1966), p.24.

93 In 1937, the Mellon Bank in Pittsburgh was one of the six largest banks in the USA.

94 In 1934, Senator Jerome Guffey denounced Anslinger as a racist from the Congress rostrum.

95 The records and files of the former FBN are kept in the DEA Library in Washington.

96 The DuPont empire was created by a family of 'robber barons' (the name applied in the United States to those who achieved economic power by exploiting the needs created during the Civil War). In 1902 DuPont controlled two-thirds of national explosives production and 40% of Armed Forces supplies. See Golby (1984).

97 The banning of cannabis in 1937 had been foretold to a great extent between 1926 and 1936, when Wallace Carothers, one of the leading chemists in the DuPont laboratories, managed to make nylon out of petrochemical materials.

98 Lamont DuPont, in *Popular Mechanics*, June 1938, p.805. Quoted in Herer (1992), p.23.

99 Hearst Paper Manufacturing Division.

100 D. Musto, 'Opium, Cocaine and Marihuana in American History', *Scientific American*, Special Issue (1993), p.36.

101 US Department of Agriculture, *Hemp for Victory* (1942). The film is now available on video from HEMP, 5632 Van Nuys Blvd, Suite 210, Van Nuys, CA 91401, USA (price \$20).

102 US Department of Agriculture, Ag. Extension Leaflet 25, March 1943.

103 R. DuPont, 'Marihuana: An Issue Comes of Age', in Braude and Szara, eds., *Pharmacology of Marihuana* (1976), vol. 1, p.3.

104 L. Grinspoon, *Marihuana Reconsidered* (1977), p.339.

105 G. Nahas, *Keep of the Grass* (1990), p.123.

106 J. Herer, *The Emperor Wears No Clothes* (1992), p.28.

107 US Congress, House Ways and Means Committee, *Taxation of Marihuana*, Hearings on H.R. 6385, 75th Cong., 1st sess., April 27-30 and May 4, 1937, p.24. quoted in J. Himmelstein, *The Strange Career of Marihuana* (1983), p.62.

108 L. Grinspoon, *Marihuana Reconsidered* (1977), pp.218-30.

109 USA (1936). The official Pharmacopoeia continued to list cannabis as a harmless medicament until 1942, five whole years after the Marihuana Tax Act came into force. It was removed in 1942 under pressure from Harry Anslinger and the FBN.

110 R. Adams and B. Baker, 'The Structure of Cannabinol VII: A Method of a Tetrahydrocannabinol which Possesses Marihuana Activity', *Jour. Amer. Chem. Soc.*, 62 (1940), 2405-8.

111 New York Mayor's Committee Report, *The Marihuana Problem in the City of New York* (Lancaster, N.Y., 1944). Reprinted by Scarecrow Reprint, Metuchen NJ., 1973.

112 L. Grinspoon, *Marihuana Reconsidered* (1977), p.309.

113 Editorial, 'Marihuana Problems', *JAMA*, 127 (1945), 1129.

114 D. Musto, *The American Disease* (1987), p.230.

115 T. Szasz, *The Therapeutic State* (1984), p.306.

116 L. Grinspoon, *Marihuana Reconsidered* (1977), p.3.

117 R. DuPont, 'Marihuana: An Issue Comes of Age', in Braude and Szara, eds., *Pharmacology of Marihuana* (1976), p.3.

118 Advisory Committee on Drug Dependence Report: *Cannabis*. Wootton Committee Report (1968).

119 R. DuPont, in Braude and Szara, eds., *Pharmacology of Marihuana* (1976), p.4.

120 Commission of Inquiry into Non-Medical Use of Drugs (1970), *Interim Report: LeDain Report*, 1970.

121 L. Grinspoon, *Marihuana Reconsidered* (1977).

122 This was the opinion expressed by Drs Richard Brohman and Frederick Suffet of the Department of Psychiatry of New York Medical College; it was supported by most of the scientists who attended the conference in May 1971.

123 US Department of Health, Marihuana and Health: First Annual Report to the US Congress (1971).

124 E. Brecher, Licit and Illicit Drugs (1972).

125 NIDA, Marihuana: A Signal of Misunderstanding (1972) and Drug Use: A Problem in Perspective (1973).

126 T. Mikuriya, Marihuana: Medical Papers, 1839-1972 (1973)

127 M. Braude and S. Szara, eds., Pharmacology of Marihuana, A Monograph of the NIDA (1976).

128 S. Cohen and R. Stillman, eds., The Therapeutic Potential of Marihuana (1976).

129 V. Rubin and L. Commoa, Ganja in Jamaica: A Medical Anthropological Study of Chronic Marihuana Use (1975). Also available as Jamaican Studies, 1968-1974 (1975).

130 P Satz, J. Fletcher and L. Sutker, in Ann. N.Y. Academy of Sciences, 282 (1976), 266-306.

131 C. Stefanis, J. Boulougouris, A. Liakos, in Braude and Szara, eds., Pharmacology of Marihuana (1976), pp.659-66.

132 C. Conrad, Hemp: Lifeline to the Future (1993), p.229.

133 P Mann, Marihuana Alert (1985).

134 C. Conrad, Hemp: Lifeline to the Future (1993), p.230.

135 K. Grivas, Oppositional Psychiatry (1989; in Greek), p.86.

136 R. Randall, 'Randall's Story', The Leaflet, 5 (1976), p.9.

137 Decriminalise: to lift the penal restrictions on the procuring and possession of an illicit substance for personal use, while retaining penal sanctions for producing and marketing it. Legalise: to lift all penal restrictions on the use, production or cultivation, and marketing of the substance.

138 G. Nahas, Keep off the Grass (1990). p.128.

139 D. Viets, 'Marihuana: A Privacy Right?', in A. Trebach and K. Zeese, eds, *Strategies for Change: New Directions in Drug Policy* (1992), p.203.

140 R. Randal and A. O'Leary, *Marihuana as Medicine: Initial Steps* (1993), pp.534.

141 G. Arnao, *Erba Proibita* (1980), p.161.

142 'President's Message to the Congress on Drug Abuse', in Strategy Council on Drug Abuse, *Federal Strategy for Drug Abuse and Drug Traffic Prevention, 1979* (Government Printing Office, 1979), pp.66-7.

143 This is the title given to the head of each US president's Narcotics Advisory Committee. Carter's drug tsar was Peter Bourne, Reagan's was Carlton Turner, and Bush's was William Bennett.

144 D. Musto, *The American Disease* (1981), pp.267.

145 On 11 July 1978, a White House official named Tody Long procured from a pharmacy fifteen capsules of a sleeping-draught on a prescription issued by Peter Bourne in the name of Sarah Brown (in order to avoid staining her professional record). The pharmacy forwarded the prescription to the DEA, and from then on it was up to the Administration how and when it would 'make use' of the matter.

146 The result of such pressure on the Greek government was the passage of law 1729/1987.

147 C. Carroll, *Drugs in Modern Society* (1993), p.334.

148 J. Herer, *The Emperor Wears No Clothes* (1992), p.34.

149 B Stein, 'Bush's Halcion days', *New York Times*, 1991

150 J. Gerth, 'Bush tried to sway a tax rule change and then withdrew', *N.Y. Times*, 19 May 1982, p.A-1.

151 F. Snapp and J. King, 'The vice president and the Contras', *Los Angeles Weekly*, 14 Oct. 1988, pp.16-18), and J. Conason and J. Kelly, 'Bush and the secret Noriega report', *N.Y. Village Voice*, 11 Oct. 1988, pp.29-32.

152, The World Health Organisation estimates that at least 500,000 people a year die (i.e. are murdered) in Third World countries from consuming dangerous medicines that are produced by American pharmaceutical companies and banned in the United States.

153 US Department of Justice: *Uniform Crime Reporting Statistics, 1988-1992*.

154 The Guardian, 22 July 1989.

155 The classification of a drug on Schedule II allows it to be used for medical purposes.

156 C. Conrad, *Hemp: Lifeline to the Future* (1993), p.269.

157 Judge Francis L. Young, 'In the matter of marihuana rescheduling' (1988). This record 'constitutes the most complete review of marihuana's therapeutic properties in the 20th century' (R. Randall and A. O'Leary, *Marihuana as Medicine: Initial Steps*, 1993).

Chapter Four Official Reports

All the reports produced by the various government research commissions since 1894 agree that the use of cannabis does not lead to drug addiction, has no negative biological effects, is not a preliminary stage on the way to use of other mind-affecting substances, and is not a factor in crime.

1. Government and Scientific Commissions

In the last decade of the nineteenth century, alarmed by the spread of cannabis use among the British occupation forces in India, the British government appointed a group of scientists, the Indian Hemp Drugs Commission, to investigate the biological and social effects of cannabis use.

The Commission's report was published in 1894, an unprecedented 3,281-page, seven-volume scientific document whose conclusions have repeatedly been confirmed by investigations conducted since. After a thorough investigation of all aspects of the subject, the authors of the report concluded that:

- 1) Occasional use of cannabis can be beneficial.
- 2) Moderate use of cannabis has no negative effects.
- 3) Moderate use is the rule, abuse the exception. [\(158\)](#)

Ever since 1894, all the official reports compiled by state-funded scientific organisations and by various government-appointed commissions studying mind-affecting substances have confirmed the conclusions of the Indian Hemp Drugs Commission Report.

They are thus redeeming cannabis in the minds of the scientific community and the general public after the long smear campaign conducted by the combined interests of the state and the major capital invested in such industrial sectors as petroleum products, paper, pharmaceuticals, alcohol, tobacco, and the drug 'black market'.

The most interesting of the numerous official government reports on cannabis and other mind-affecting substances are:

1894 United Kingdom: The Indian Hemp Drugs Commission Report
Report of the Indian Hemp Drugs Commission

1924 United Kingdom: Addiction (Rolleston Committee's Report)
Report of the Departmental Committee on Drug Addiction

1944 United States: La Guardia Report

Report of the New York Mayor's Committee on 'The Marihuana Problem in the City of New York'

1961 United Kingdom: Drug Addiction

Report of the Interdepartmental Committee (First Report).

1964 United Kingdom: Drug Addiction (Brain Committee's Report) Report of the Interdepartmental

Committee (Second Report).

1968 United Kingdom: Cannabis (Wootton Committee's Report)

Report of the British Government's Advisory Committee on Drug Dependence

1970 Canada: Interim Report (Le Dain Report)

Report of the Canadian Government's Commission of Inquiry into Non-Medical Use of Drugs

1971 United States: Marihuana and Health

Report of US Department of Health, Education, and Welfare (First Annual Report to Congress).

1972 United States: Marihuana and Health

Report of US Department of Health, Education, and Welfare (Second Annual Report to Congress).

1972 The Netherlands:

Report of The Netherlands Government's Commission on Drugs

1972 Canada: Cannabis

Report of the Canadian Government's Commission of Inquiry into Non-Medical Use of Drugs

1972 United States: Marihuana: A Signal of Misunderstanding (Nixon Report)

Report of the US National Commission on Marihuana and Drug Abuse.

1972 United States: Licit and Illicit Drugs ([159](#))

Report by the US Consumers' Union

1973 United States: Marihuana and Health

Report of US Department of Health, Education, and Welfare (Third Annual Report to Congress)

1974 United States: Marihuana and Health

Report of US Department of Health, Education, and Welfare (Fourth Annual Report to Congress)

1973 United States: Drug Abuse in America: Problem in Perspective

Report of the US National Commission on Marihuana and Drug Abuse

1974 United States: Eastland Report
Report of the US Senate's Commission on Drugs([160](#))

1976 Australia: On Drugs
Report of Australian Government's Advisory Committee on Drugs ([161](#))

1977 United States: Chronic Cannabis Use
Report by the New York Academy of Sciences

1977 United States: The Marihuana Issue: Report from NORML
Report by the US Drug Abuse Council

1982 United Kingdom: Treatment and Rehabilitation
Report of the British Government's Advisory Council on the Misuse of Drugs

1982 United States: Marihuana and Health: Evaluation of Past Studies
National Academy of Sciences

1982 United Kingdom: Prevention
Report of British Government's Advisory Council on the Misuse of Drugs

1986 European Community: On the problem of narcotics in the countries of the EC
Report of the Examining Committee of the European Parliament.

1986 Greece: On the Government's Draft Law on Drugs
Report of the Special Committee of the Medical Association of Thessaloniki

1988 United Kingdom: AIDS and Drug Misuse
Report of the British Government's Advisory Council on the Misuse of Drugs

1992 European Community: On the spread of organized crime in the EC
Report of the Examining Committee of the European Parliament

These reports agree that the use of cannabis:

- 1) Is not addictive.
- 2) In moderation has no adverse biological or mental effects (even when it is abused, the effects of cannabis use fall far short of the effects of alcohol and tobacco use).
- 3) Has no causative connection with the use of addictive substances (it is not a preliminary stage on the

way to the use of other mind-affecting substances, and the so-called 'escalation theory' is therefore groundless).

4) Is not a factor in crime.

2. The European Parliament

FIRST REPORT (1986) The conservative report produced by the Examining Committee of the European Parliament On the problem of narcotics in the countries of the European Community (chaired by Jack Stewart-Clark) ([162](#)) had this to say about cannabis in 1986:

(Paragraph 34): Cannabis is by far the most commonly used mood altering drug. Two forms are available: Marihuana, which is prepared from the dried leaves and flowering tips of the Cannabis plant and Hashish, which is made from the dried resin of the plant. Cannabis is usually smoked in a roll-up cigarette, the effects tend to be mild and pleasant, giving a sense of relaxation. Most users come to no harm in smoking Cannabis. It is by no means proven that people who smoke Cannabis are bound to go on to Heroin. Whilst most Heroin users state they have previously smoked Cannabis, most Cannabis users state they have no intention of going on to Heroin. There is, however, a danger when Cannabis is mixed with other drugs such as Crack and PCP.

(Paragraph 119): The case for or against the legalisation of Cannabis is much more evenly balanced. In the first place, we know that in countries such as Holland, where the consumption as opposed to the marketing of Cannabis is allowed, consumption has not risen significantly. It is also claimed that the psychological problems connected with those illegally consuming the drug have disappeared. Against this, many people will claim that Cannabis is a stepping-stone to hard drug use. We are not convinced that this has been proven, since it is unrealistic to start from the argument that most Heroin users started by using Cannabis. It is equally true that the vast majority of those who have smoked Cannabis have never turned to Heroin or Cocaine. It can even be argued that by making the smoking of Cannabis illegal and making strenuous efforts to keep it off the streets, less distinction is made between soft and hard drugs and because of this and the scarcity factor, Cannabis users will be more inclined to turn to heroin. Nonetheless, we believe that there are other arguments against the legalisation of soft drugs. Firstly, there is illogicality in making Cannabis legal to consume but illegal to import. This is what the Dutch do. Secondly, the trade in Cannabis is still conducted by the criminal organisations. Thirdly, we know that there are stronger varieties of Cannabis being grown and the possibilities of mixing this drug with chemical substances such as PCP can be lethal.

(Paragraph 120): We are, however, strongly of the view that a clear distinction needs to be made in the treatment of Cannabis users. Whilst the drug should not be made legal, equally police and legal authorities should be encouraged to take a relatively lenient view of the Cannabis user unless it can be shown that he is involved in supplying the drug in significant quantities to users. At the same time, the

trafficker in Cannabis needs to be pursued, as more often than not he is the same person who is dealing also in Heroin or Cocaine.

SECOND REPORT (1992) Rather more realistic than the previous one, the report produced by the Investigating Committee of the European Parliament On the spread of organized crime linked to drugs trafficking in the member States of the European Community (chaired by Patrick Cooney) included an impressive list of recommendations designed to defend the European Community against the triple threat inherent in "drug dependence, repression, and organised crime".[\(163\)](#)

As far as the recommendations are concerned, of particular interest is paragraph 16 of Part I of the report, which points out:

In the future an improved differentiation between drugs (from their origin to their effects) will be necessary in order to investigate better and more specific ways of dealing with the drugs problem in its variety on the three levels: supply, trafficking and demand. Such a differentiation between hard and soft drugs and correspondingly between natural, cultivated and industrialized manufactured drugs might read as follows:

- 1) ULTRA-HARD DRUGS: Heroin, Crack
- 2) HARD DRUGS: Morphine, Cocaine, Phencyclidine, Methadone, Pethidine
- 3) MEDIUM-HARD DRUGS: Amphetamines, Barbiturates, LSD, Psilocybin, Mescaline, Chemical solvents, Absinth
- 4) MEDIUM-SOFT DRUGS: Opium, Hashish, Khat, Coca, Tobacco, Alcohol (distilled)
- 5) SOFT DRUGS: Cannabis, Alcohol (fermented), Peyotl, Hallucinogenic mushrooms, Codeine, Tranquillizers.
- 6) ULTRA-SOFT DRUGS: Tea, Coffee, Chocolate

This classification demonstrates the need for a single health policy, based on epidemiological, toxicological and pharmacological factors, for all drugs, irrespective of their legal status.[\(164\)](#)

158 The Indian Hemp Drugs Commission Report (1894).

159 E. Brecher, *Licit and Illicit Drugs* (1972).

160 Chaired by Sen. Eastland.

161 *Drug Survival News* (Jan.-Feb. 1978) and *The Journal* (April 1978).

162 The report was approved by the fifteen-member committee on 22 September 1986, with 8 votes for, 4 against, and 1 abstention (2 members were absent).

163 The report was approved by the fifteen-member Examining Committee on 29 November 1992, with 9 votes for and 6 against (all those who voted against belonged to the committee's conservative wing). In April 1993, the report was presented for discussion at a plenary session of the European Parliament, but the European MPs belonging to the conservative parties took steps to have the discussion postponed.

164 European Parliament, *Report* (1992), pp.8-9

Chapter Five The Spurious Arguments for Prohibition

There is a terrible, demoralizing fascination in the possibility that gigantic lies and monstrous falsehoods can eventually be established as unquestioned facts, that man may be free to change his own past at will, and that the difference between truth and falsehood may cease to be objective and become a mere matter of power and cleverness, of pressure and infinite repetition.

Hannah Arendt ([165](#))

The terrorist mythology of those who support the repression of cannabis is a mosaic of motley formulae that are presented as self-evident scientific truths, but in fact collapse under the most casual scrutiny. It is probably quite impossible to keep up with these people's unlimited inventiveness and the impressive speed with which they fabricate a new 'scientific' argument as soon as the previous one has been demolished. A glance at the pack of unfounded accusations that have been produced purely and simply in order retrospectively to legitimise and perpetuate the persecution of cannabis and cannabis users leads to the inevitable conclusion that the scaremongering practised by the crusaders for repression and prohibition essentially consists in no more than the trite repetition of a handful of untruths and groundless assertions. These are that:

- 1) Cannabis 'is addictive'
- 2) Cannabis 'is the first step towards heroin'
- 3) Cannabis 'causes brain damage'
- 4) Cannabis 'leads to chromosome damage'
- 5) Cannabis 'weakens the body's defences'
- 6) Cannabis 'reduces testosterone'
- 7) Cannabis 'leads to hashish psychosis'
- 8) Cannabis 'causes aggression'
- 9) Cannabis 'causes dangerous driving'

The completion of the internationally acclaimed scientific studies conducted for years on chronic cannabis users in Jamaica, Costa Rica, and Greece dealt a harsh blow to the imaginative crusaders for repression, though their myth-making continued unabated. ([166](#))

The fact that the supporters of prohibition remain undaunted and inflexible before the findings of a stream of scientific investigations that demolish their anecdotal, unrealistic claims simply shows either that they have an inexhaustible supply of fantasies and obsessions governed by phobomania or that 'anti-drug' soteriology is unfortunately still a thriving business that can guarantee its shareholders a social 'career'. And more in some cases.

1. Cannabis 'is addictive'

Even though they are repeatedly contradicted by past experience and present scientific research, the

advocates of prohibition persist in regurgitating the flagrant untruth that cannabis leads to drug addiction; which means, first and foremost, physical dependence, always assuming that such terms still mean anything at all. [\(167\)](#)

The use of cannabis does not lead to physical dependence; cessation of use is not followed by withdrawal symptoms, and consequently 'THC is not a drug.' [\(168\)](#) In 1953, L. J. Thompson and R. C. Proctor summed up the attitude of the great majority of the medical profession in their firm assurance that 'the use of cannabis does not give rise to biological or physiological dependence and discontinuance of the drug does not result in withdrawal Symptoms.' [\(169\)](#) And in 1976, Stephen Szara of the United States' NIDA categorically stated that 'the question of physical dependence. . . has been answered with a flat no. No physical dependence, of the type seen in opiates, has been seen in man and this is true even today.' [\(170\)](#)

That cannabis is not addictive is also proven by the fact that there is no mention of how to treat 'cannabis addiction' in the textbooks on the treatment and cure of addiction which are used in US universities and medical schools and are approved by the medical profession all over the world. [\(171\)](#)

In this respect, the results of the research conducted on regular users of cannabis and tobacco by the Canadian Government's Commission of Inquiry into the Non-Medical Use of Drugs are particularly eloquent. When asked whether they would rather give up cannabis or tobacco if they had to choose, they all replied that they would prefer to give up tobacco. But when they were asked to do so, by the end of the first day they all opted to give up cannabis after all, being unable to cope with the terrible withdrawal symptoms. A comparative study of cannabis and alcohol produced similar results. [\(172\)](#)

However, the medical literature does contain some accounts of cases of tolerance and mild withdrawal symptoms in individuals taking large doses of synthetic A9-THC under laboratory conditions (a daily dose of 210 mg of synthetic Q9-THC, which is equivalent to 20-40 joints of natural marihuana). [\(173\)](#)

The American Psychiatric Association, however, preferred to ignore these essential differences; to spotlight the observations relating to the experimental administration of large doses of A9-THC under totally different circumstances from the everyday situation in which cannabis is generally used; and to devise the diagnostic category of 'cannabis dependence' which it included in its Guide to Diagnostic Criteria DSM-III. [\(174\)](#)

To spare my readers a tiring peregrination through many volumes of scientific literature that flatly contradict this figment, let me present the conclusions of some Greek scientists who have looked into the matter. I must stress that, despite what they concede in theory, not one of them has ever made a public stand even for the decriminalisation of cannabis, much less for its legalisation.

In contrast to opiates, prolonged use of hashish presents no physical syndrome of chronic poisoning'.
(Yannis Ayoutandis, Professor of Forensic Medicine)

Tolerance and physical dependence apparently do not arise from the use of cannabis, hashish or marihuana.

(Dionyssios Varonos, Professor of Pharmacology)

The organism apparently does not become habituated [to hashish], for the dose does not have to be increased. Nor is physical dependence observed, as with addictive drugs that is to say no withdrawal symptoms are observed.

(Yorgos Logaras, Professor of Pharmacology)

Long-term consumption of cannabinoids has not been correlated with the development of physical dependence.

(Marios Marselos, Professor of Pharmacology)

Cannabis does not cause biological dependence.

(Kostas Stefanis, Professor of Psychiatry)

[Hashish] does not cause habituation, it does not develop physical dependence.

(Andreas Davaroukas and Yannis Souretis, Surgeons General) [\(175\)](#)

2. Cannabis `is the first step towards heroin'

The only supporting evidence for this particular joke put about by the supporters of repression is the fact that so many of them have told it. The numerous reports produced by national scientific bodies and government commissions in various countries, [\(176\)](#) not to mention all the relevant investigations, whose gravity has never been doubted by the scientific community, unequivocally contradict the discredited and groundless `escalation theory'.

As early as 1952, surveys amongst heroin addicts in Chicago found that only 11 % of them had a history of marihuana use. At the same time two large-scale surveys in New York City concluded that "marihuana use was not a causal element in the aetiology of heroin use." [\(177\)](#)

After a follow-up study of an in-depth investigation, Zinberg and Weil concluded that their results provided `absolutely no evidence that cannabis users progress to hard drugs' and that the herb users were actually less inclined to use other drugs, including alcohol. [\(178\)](#)

The British pharmacologist W. Patton explicitly confirms that `cannabis and heroin-taking have nothing to do with each other. In that case the incidence of cannabis-taking among known heroin-addicts should be the same as that of the general population.' [\(179\)](#)

Lester Grinspoon, Professor of Psychiatry at Harvard Medical School and internationally acclaimed

expert on marihuana and its medical uses, categorically states that `there is nothing to indicate that the use of marihuana is one of the causal factors behind this heavier use of more dangerous substances.'" [\(180\)](#)

Jerome Jaffe, Professor of Psychiatry, Nixon's and Ford's adviser on drugs, and nicknamed the `drug pope' in the USA, explains that the belief that cannabis use leads to heroin is erroneous.' [\(181\)](#)

And it is not only scientists who unequivocally confirm that cannabis is not the first step towards the use of addictive substances. When they are not soliloquising in front of an unsuspecting public, but delivering a report to specialists or informed politicians, even the preachers of prohibition are forced to concede the truth of the matter.

Not only is cannabis use not `the first step towards heroin', it is already being tested with encouraging results, and may eventually prove useful in efforts to release people from dependence on such toxic substances as alcohol and heroin.' [\(182\)](#)

3. Cannabis `causes brain damage'

The third favourite claim of those who have their money on the banning of cannabis is the deliberately invented and sustained fiction that use of cannabis causes "various kinds of organic damage, particularly atrophy of the brain".

It is a claim that was first made after A. Campbell and his associates published an article in *The Lancet* in November 1971, maintaining that "the brains of 10 heavy marihuana smokers showed evidence of cerebral atrophy as demonstrated by air encephalography."[\(183\)](#) An impressive amount of pseudo-scientific hot air was subsequently produced on the basis of Campbell's article, despite the fact that it was harshly criticised and dismissed by the international scientific community as being of no significance whatsoever.' [\(184\)](#)

Professor Lester Grinspoon stringently criticised Campbell's article and showed that it was totally unreliable. He wrote, inter alia:

The deficiencies of the Campbell study are crippling. All 10 subjects were psychiatric patients, and no comparison was made with psychiatric patients who did not use cannabis. At least 1 and maybe 2 were epileptics, several had suffered head injuries, I was mentally retarded, and as many as 5 had been schizophrenic. All had taken LSD, most had used amphetamines, and a few were heavy users of opiates, barbiturates, and tranquillizers. The possible role of alcohol, which is known to be neurotoxic, was not considered. The peculiarity of this sample and the absence of controls make Campbell's results valueless. It would be useful to have controlled prospective studies on cannabis brain damage, but there is little reason to expect that any connection will be discovered. In a controlled retrospective study of

chronic cannabis users in Greece, for example, echoencephalography revealed no evidence of cerebral atrophy.[\(185\)](#)

Professor Jerome Jaffe's critique was equally dismissive, and he emphatically asserted that studies had been conducted that were very well controlled with regard to methodology, and not one had found evidence of cerebral atrophy, nor any kind of permanent brain damage.[\(186\)](#) Not only was there not the slightest indication of cerebral atrophy, but many large-scale surveys of American students have found no evidence whatsoever that regular users of cannabis are less academically successful than non-users.[\(187\)](#)

4. Cannabis `leads to chromosome damage'

On the same level of seriousness is the prohibition brigade's assertion that cannabis use "has adverse effects on chromosomes". This one came to life in 1972 after Stenchever and Allen published a `study' reporting chromosome breaks in white blood cells caused by the effects of marihuana.'[\(188\)](#)

These findings were completely contradicted by the three long-term studies conducted in Jamaica, Costa Rica, and Greece, and Stenchever and Allen's work was conclusively discredited by all the systematic investigations carried out thereafter in order to investigate their claims.

Professor S. Matsuyama affirms that "a comparison of the frequency of [chromosome] breaks before and after marihuana smoking (for 72 days) revealed no significant difference... No structural abnormalities other than simple chromatid and isochromatid breaks and fragments were seen either before or after the experimental periods."[\(189\)](#) In summary, the available cytogenetic data provide no definitive evidence of chromosome damage as a result of marihuana use. [\(190\)](#)

Professor Jerome Jaffe has established that no contemporary study, whether of human beings or of animals, has shown chromosome changes connected with the use of cannabis.'[\(191\)](#)

And Professor Lester Grinspoon confirms that all the "recent prospective studies on both animals and human beings have shown no chromosome differences between cannabis users and controls."[\(192\)](#)

5. Cannabis `weakens the body's defences'

The assertion that cannabis use affects the immune system was made by Gabriel Nahas in an article in 1974.[\(193\)](#) It was absolutely refuted by all subsequent investigations, most notably the study conducted by White et al. in 1975 and the investigative study carried out by J. Silverstein and Lessin of Los Angeles University, who proved that "chronic marihuana use does not produce a gross cellular immune defect that can be detected by skin testing."[\(194\)](#) This was also confirmed by the Jamaican, Costa Rican,

and Greek studies mentioned earlier, and many other studies. [\(195\)](#)

On this basis, the US Department of Health and its National Institute on Drug Addiction concluded that no proof has yet been produced that marihuana users are more susceptible to illnesses such as viral infections and cancer, which are connected with reduced T-cell production. [\(196\)](#)

6. Cannabis `reduces testosterone'

The assertion that cannabis reduces the level of testosterone in users' blood was put forward by Kolodny in 1974. In an article in the New England Journal of Medicine he stated that marihuana use `decreases plasma testosterone and plasma luteinizing hormone levels in healthy young men.' [\(197\)](#)

The paper did not specify the users' testosterone levels prior to their use of cannabis, and it was thus impossible to make a comparison and draw conclusions. So the report itself cast doubt on its own credibility right from the start. [\(198\)](#)

A few months later the same journal published a study by Mendelson, who had examined 27 young men, who had been smoking cannabis for an average of 5.6 years. They refrained from smoking for two weeks and then used marihuana for a period .of 21 days (12 of them smoked 1-5 joints a day and the rest 1-8 joints a day). The comparison of testosterone levels before, during, and after this period showed that there were no significant differences: their testosterone level remained stable. "High-dosage marihuana intake was not associated with suppression of testosterone levels." [\(199\)](#)

In 1976, Kolodny's claim was refuted by the study carried out in Costa Rica by Coggins et al., who compared the testosterone levels of 38 individuals who had smoked an average of 9.6 joints a day for 17 years and 38 non-users. No difference was found either between the two groups or between the heavy and light users. [\(200\)](#)

In 1977, in the US Department of Health's sixth annual report to Congress, the National Institute on Drug Abuse evaluated all the studies produced hitherto and concluded that the biological significance of the changes in testosterone levels was doubtful: the results might have been significant in the case of individuals already presenting reduced fertility or endocrinal dysfunction, but they were of no significance in normal subjects. Furthermore, studies had recently shown that regular consumers of alcohol could present reduced testosterone levels, which made it difficult to distinguish between the effects of cannabis and of alcohol, since people frequently use both substances. [\(201\)](#)

7. Cannabis `leads to hashish psychosis'

The assertion that the use of cannabis produces `hashish psychosis' was made in 1957 by the Moroccan

psychiatrist A. Benabud and dismissed as groundless when many careful studies proved that he was referring not to real permanent psychosis but to toxic reactions due to enormous doses of hashish (20-30 pipes a day) in association with the extremely overcrowded living conditions of the poorer people in underdeveloped countries. [\(202\)](#)

Benabud's hypothesis was also dismissed in the reports of the scientific commissions appointed by the US and Canadian governments, [\(203\)](#) in the long-term studies of chronic hashish users conducted in Jamaica, Costa Rica, and Greece under the aegis of the World Health Organisation, [\(204\)](#) and by virtually all the scientists who have investigated it.

As Giancarlo Arnao points out, many of these scientists (such as Fort, Grinspoon, Murphy, et al.) have concluded that the use of cannabis not only does not lead to psychosis but, on the contrary, probably helps to rectify certain pathological mental conditions and to alleviate the most obvious symptoms in certain individuals. [\(205\)](#)

8. Cannabis `causes aggression'

The notion that "the use of cannabis causes violent and aggressive behavioural manifestations" is really not worth commenting on, for it is obviously addressed to the ignorant, either by the very naive, who may justifiably say whatever they please, or by people who are well aware of the truth and are deliberately distorting it to serve political and economic ends.

In complete contrast to licit alcohol, which (given that 50% of the murders and 25% of the suicides committed in the United States every year - an annual average of 11,700 cases - and 50% of the traffic accidents all over the world take place under its influence) demonstrably increases its consumers' destructive aggression, the use of illicit cannabis not only does not promote violence or aggression, but on the contrary suppresses or drastically reduces it. This is why, quite rightly, most laboratory experiments have found that during the process of toxification aggression is reduced. The evidence generally indicates that cannabis does not lead to violence, but that alcohol-induced drunkenness very frequently promotes and reinforces violent behaviour. [\(206\)](#)

9. Cannabis `causes dangerous driving'

Despite the allegations of those who support the banning of cannabis, it does not in fact pose an appreciable threat to road safety certainly much less than alcohol.

In 1969, Crancer et al. compared the effects of marihuana and alcohol on people undergoing a simulated driving test, and found that those who had consumed alcohol made many more errors than those who had taken cannabis (whose error-rate was very slightly higher than that of the control group). They also

found that cannabis users tended to drive more slowly than the other groups.

Impairment in simulated driving performance does not seem to be a function of increased marijuana dosage or inexperience with the drug... None of the subjects showed a significant change in performance. Four additional subjects who had never smoked marijuana before were pretested to obtain control scores, then given marijuana to smoke until they were subjectively 'high' with an associated increase in pulse rate... All subjects showed either no change or negligible improvement in their scores. [\(207\)](#)

Weil et al. studied the effects of cannabis use on both experienced and inexperienced consumers and concluded that the driving ability of the experienced users was affected slightly less than that of the inexperienced users. [\(208\)](#)

Kielholz conducted a similar investigation on behalf of the Canadian Government Commission, administering 24-32 mg of synthetic Δ 9-THC to the research subjects. [\(209\)](#) He found that the subjects' response to constantly changing situations was inadequate. [\(210\)](#)

Hansteen, Miller, Lonero, Reid, and Jones, also on behalf of the Canadian Government Commission, investigated the effects of cannabis, alcohol, and a combination of the two in driving situations very similar to real ones. [\(211\)](#)

COMPARISON BETWEEN CANNABIS AND ALCOHOL The volunteers were divided into three groups. Group 1 received a moderate dose of cannabis equivalent to 1.4 mg of Δ 9-THC. Group 2 received a large dose of cannabis equivalent to 5.9 mg of Δ 9-THC. And group 3 received a large dose of alcohol, giving a blood alcohol level of 0.07%. [\(212\)](#) The control group consisted of people who had consumed neither alcohol nor cannabis. When the effects of the substances had begun to make themselves felt, the volunteers underwent a driving test along a specified route and at a specified speed, with the following results.

- a) Number of errors: Group 3 made 32% more errors than the control group. Group 2 made 27% more. And there was no difference between Group 1 and the control group.
- b) Speed: Group 3 drove faster than the control group. Group 2 drove slightly slower, and group 1 considerably slower.
- c) Lack of co-ordination: Group 3 scored 2.7, group 2 scored 2.2, group 1 scored 1.9, and the control group scored 1.7.

COMPARISON BETWEEN CANNABIS, ALCOHOL, AND CANNABIS AND ALCOHOL TOGETHER The volunteers were divided into five groups. Group 1 was given a large dose of cannabis equivalent to 6.8 mg of Δ 9-THC. Group 2 received a moderate dose of cannabis equivalent to 1.6 mg of Δ 9-THC. Group 3 received a large dose of alcohol, giving a blood alcohol level of 0.07%. Group 4 received a moderate dose of alcohol, giving a blood alcohol level of 0.03%. And group 5 received a

moderate dose of alcohol together with a moderate dose of cannabis. When the effects of intoxication were felt, the groups underwent a driving test along a specified route and at a specified speed, with the following results.

a) Number of errors on a simple route: Group 3:130, Group 5:105, Group 4:95, Group 1:90, Group 2:85 (control group: 75).

b) Number of errors on a complicated route: Group 5:205, Group 3:195, Group 1: 185, Group 2:160, Group 4:150 (control group: 160).

c) Reaction time: Reaction time was longer for Groups 3, 4, and 5. It remained the same for Groups 1 and 2 and the control group. When the tests were repeated three hours later, there was no difference between the volunteers and the control group.[\(213\)](#)

Investigating the subject on behalf of the US government, Dott studied the behaviour of volunteers undergoing driving tests after taking 11.2-22.5 mg of synthetic $\Delta 9$ -THC by mouth. He found that they were all reluctant to get involved in a slightly dangerous situation (e.g. overtaking), and that their reaction time was increased. Light and Keiper repeated the experiment on volunteers who were given alcohol (blood alcohol level of 0.089%) and found that their behaviour was more aggressive and their reaction time also longer.

After examining the results of these two experiments, Dott affirmed that, though the attention of people under the influence of marijuana is reduced, they are able to rectify the effect of this if necessary. In contrast, people under the influence of alcohol are powerless to rectify its effects. Therefore, he concluded, from the point of view of road safety, intoxication with alcohol is more dangerous than intoxication with marijuana.[\(214\)](#)

In 1972, the Canadian Government Commission analysed the results of the studies conducted in the United States and Canada together with the conclusions of investigations conducted by scientific groups on its behalf, and concluded that there was no evidence that marijuana had a negative effect on either alertness or reaction time. The use of cannabis could, it seemed, reduce driving ability, but the effects were closely linked to the individual's experience of driving while high. Obviously, driving while intoxicated was dangerous and should be avoided, but there was no proof that the use of cannabis increased the dangers of driving. The risk of driving a car or an aeroplane while under the influence of any substance could not be stressed too highly, yet cannabis gave no cause for alarm. The Commission pointed out that the Canadian Penal Code laid down specific sanctions for dangerous driving, and that, in the Commission's opinion, was sufficient.[\(215\)](#)

Also in 1972, the US National Commission on marijuana and Drug Abuse concluded in its report that although marijuana could not be considered completely harmless, experimental and occasional use of it posed minimal risk to public health. It was an offence to operate a vehicle or dangerous machinery while under the influence of either marijuana or alcohol. Being under the influence of marijuana was not an

extenuating factor in the commission of a criminal act: anyone causing personal or material damage while under the influence of marihuana was held to be fully responsible. [\(216\)](#)

165 H. Arendt, *The Origins of Totalitarianism* (1951), p.333.

166 There were no noticeable differences between the findings of the three investigations: V. Rubin and L. Commitas (1975), P. Satz, J. Fletcher, and L. Sutker (1977), C. Stefanis, J. Boulougouris, and A. Liakos (1976).

167 See Chapter 1, section 9, 'Tolerance and dependence'.

168 R. Julien, *A Primer of Drug Action* (1992), p.270.

169 L. Thompson and R. Proctor (1953), pp.520-3.

170 S. Szara, in Braude and Szara, eds, *Pharmacology of Marihuana* (1976), p.29.

171 Kaplan, Freedman, and Sadock (1980), pp. 1615-19; Goodman and Gilman (1990), pp.549-53; Frances and Miller (1991).

172 Commission of Inquiry into the Non-Medical Use of Drugs, Interim Report (1970), 124.

173 See Chapter 1, section 9, 'Tolerance and dependence'.

174 American Psychiatric Association (1980).

175 Y. Ayoutandis (1973), D. Varonos (1987), Y. Logaras (1971), M. Marselos (1986), p.212, C. Stefanis (1990), A. Davaroukas and Y. Souretis (1981), p.66.

176 The most important of which are mentioned in Chapter 4: 'Official Reports'.

177 L. Grinspoon, *Marihuana Reconsidered* (1977), p.243.

178 N. Zinberg and A. Weil (1970), p.119, 122.

179 W. Patton (1968), pp.200-12.

180 L. Grinspoon, *Marihuana Reconsidered* (1977), p.251.

181 J. Jaffe, R. Peterson, and R. Hodgson, *Addictions* (1980), p.77.

182 E. Birch (1889); L. Thompson and L. Proctor (1953); T. Mikuriya (1970); J. Scher (1971).

183 A Campbell et al. (1971), p.1224.

184 Commission of Inquiry into Non-Medical Use of Drugs: Interim Report (1970); US DHEW (1971).

185 L. Grinspoon, *Marihuana Reconsidered* (1977), p.387.

186 J. Jaffe, R. Peterson, and R. Hodgson, *Addictions* (1980), p.76;

187 J. Jaffe, R. Peterson, and R. Hodgson, *Addictions* (1980), p.74.

188 M. Stenchever and M. Allen (1972), p.821.

189 S Matsuyama et al, 'Chromosome Studies Before and After Supervised Marihuana Smoking', in Braude and Szara, eds, *Pharmacology of Marihuana* (1976), pp.726-7.

190 S. Matsuyama, 'Cytogenic studies of Marijuana', in *Marihuana and Health Hazards* (1975).

191 J. Jaffe, R. Peterson, R. Hodgson, *Addictions* (1980), p.75.

192 L. Grinspoon, *Marihuana Reconsidered* (1977), p.390.

193 G. Nahas et al. 'Inhibition of cellular mediated immunity in marijuana smokers', *Science*, 183 (1974), 419-20.

194 M. Silverstein and P. Lissin, 'Normal skin test responses in chronic marihuana users', *Science* 186 (1974), 740-1.

195 B Petersen, J. Graham, L. Lemberger, and B. Dalton, 'Studies of the immune response in chronic marihuana smokers', *Pharmacologist*, 16 (1974), 259.

196 US Department of Health, *Marihuana and Health, Annual Report to the US Congress* (1977 and 1980).

197 R. Kolodny et al. (1974), *New England Journal of Medicine*, 290 (1974), 872-4.

198 G. Arno (1978), p.108.

199 J. Mendelson et al. (1974), 'Plasma testosterone level before, during and after chronic marihuana smoking', *New England Journal of Medicine* 291 (1974), p.1051

- 200 W. Coggins, E. Swenson, and W. Dawson, in NYAS, *Chronic Cannabis Use* (1977), p.160.
- 201 US Department of Health, *Marihuana and Health*, Annual Report to the US Congress (1977), p.18.
- 202 G. Arnao, *Erba Proibita* (1978), p.104.
- 203 Commission of Inquiry into Non-Medical Use of Drugs: Interim Report (1970), p.71.
- 204 V. Rubin and L. Commitas (1975); P. Satz, J. Fletcher, and L. Sutker (1977); C. Stefanis, R. Dombush, and M. Fink (1977).
- 205 G. Arnao, *Erba Proibita* (1978), p.105.
- 206 US Department of Health (1979); L. Grinspoon (1977); and J. Jaffe, R. Peterson and R. Hodgson *Addictions* (1980), p.78.
- 207 A. Crancer et al., 'Comparison of the Effects of Marihuana and Alcohol on Simulated Driving Performance', *Science* 164 (1969), 851; reprinted in T. Mikuriya, ed., *Marijuana: Medical Papers* (1973), 261-90.
- 208 A. Weil, N. Zinberg and J. Nelesen, 'Clinical and Psychological Effects of Marijuana in Man', *Science* 162 (1968), 123442.
- 209 Thirty per cent of which was absorbed, i.e. 8-10 mg. A normal joint of natural marihuana contains 500 mg of marihuana with a content of 1 % THC; i.e. it contains 5 mg of THC, of which the smoker's body absorbs 30%, i.e. approximately 2 mg. Consequently, in order to absorb 8-10 mg of THC, one has to smoke 4-5 joints.
- 210 US Department of Health (1973), p.139.
- 211 US Department of Health (1973), p.139.
- 212 A blood alcohol level of 0.07% equates to 320 gr. (two glasses) of 12° wine or 96 gr. of 40° whisky. In most Western countries it is an offence to drive with a blood alcohol level of more than 0.08%.
- 213 All the data pertaining to the driving tests are taken from G. Arnao, *Erba Proibita* (1978).
- 214 US DHEW (1873), p.139.
- 215 Report of the Commission of Inquiry into Non-Medical Use of Drugs: Cannabis (1972) This is the

second report by the commission which produced the Interim report of 1970

216 US National Commission on Marihuana and Drug Abuse (1972)

Chapter Six Medical Uses of Cannabis

In order to furnish the results to which I have been led by more than thirty years' experience of the drug, it will be well to arrange the maladies in which it has been either useful, or useless... by giving my experience of the great value of Indian hemp.

Dr J. Russell Reynolds, personal physician to Queen Victoria, (The Lancet, 1890) [\(217\)](#)

Cannabis occupies one of the most important chapters in the history of world medicine. Lavishly supplied by nature, non-toxic, safe, and with a wide range of applications, it has been used by all peoples and cultures to treat many mental dysfunctions and physical ailments for more than three thousand years.

From the sixteenth century onwards, Western therapeutic practice focused almost exclusively on opium and opium preparations. In the nineteenth century opium was joined by cannabis and cannabis products. Into the first decades of the twentieth century, the concept of 'medicinal therapeutic media' meant more or less the products of two plants: the opium poppy and cannabis.

Western medicine discovered cannabis in the nineteenth century and the plant held a privileged place in its therapeutic armoury until 1937, when it was expelled from the therapeutic sphere for reasons that had nothing whatever to do with either medicine or therapy.

In 1839, Dr W. B. O'Shaughnessy, a British doctor, Professor at the Medical School of Calcutta, and advisor to the medical service of the British East India Company, published a paper on the analgesic, antispasmodic, and muscle-relaxing properties of cannabis, expressing his firm belief that "in Hemp the profession has gained an anti-convulsive remedy of the greatest value." [\(218\)](#) O'Shaughnessy's pronouncements roused the interest of doctors all over the world, and as a result, over the next sixty years, more than a hundred scientific studies of cannabis were published.

In 1860, Dr R. R. M'Meens presented the results of his study of the medical uses of cannabis to the Medical Society of Ohio: After acknowledging their indebtedness to Dr O'Shaughnessy, he reviewed the symptoms and conditions for which hemp was found useful. These included tetanus, neuralgia, the arrest of uterine hemorrhage, as an analgesic during labor, in dysmenorrhea, convulsions, the pain of rheumatism, asthma, pogram psychoses, gonorrhoea, and chronic bronchitis. [\(219\)](#)

In 1881, Dr H. Kane established cannabis as a useful substitute in cases of alcohol addiction.

In 1889, Dr E. A. Birch "approaching modern research techniques, treated one chloral-hydrate addict and one opium addict with cannabis indica. In both, the drug addiction was replaced by unidentified ills containing cannabis, which was subsequently slowly withdrawn." [\(220\)](#)

In 1899, Sir William Osler, Professor of Medicine at Johns Hopkins and at Oxford University, produced a paper on migraine and stress, in which he concluded that "cannabis indica is probably the most satisfactory remedy. "[\(221\)](#)

In 1890, Dr J. Russell Reynolds, personal physician to Queen Victoria, published an article in The Lancet in which he summarised his thirty years experience of the therapeutic use of cannabis, asserted its efficacy in cases of migraine, various epileptic conditions, depression, asthma, and dysmenorrhoea, and concluded "by giving his opinion of the great value of Indian hemp. "[\(222\)](#)

In 1891, Dr J. B. Mattisson acknowledged the therapeutic usefulness of cannabis in many physical pathological conditions and mental dysfunctions, and concluded that "Indian hemp is not a poison... cannabis indica is, often, a safe and successful anodyne and hypnotic... it is a drug that has a special value in some morbid conditions, and its intrinsic merit and superior safety entitle it to the place it once held in therapeutics. "[\(223\)](#)

In the circumstances, at the turn of the nineteenth century it would have been hard to imagine that a few decades later cannabis would head the list of scapegoat substances and that its users would be facing merciless treatment at the hands of the law, with penalties ranging from a few years to life imprisonment or even the death sentence in some cases.

Until 1937, cannabis was an ingredient of more than thirty pharmaceutical products on the US market. After 1937, when the Marihuana Tax Act made it an illicit substance, it became extremely difficult legally to prescribe cannabis derivatives for therapeutic purposes.

During the witch-hunting period (1946-60), all research into the therapeutic uses of cannabis was frozen. [\(224\)](#) In the early sixties, however, public opinion began actively to dismiss the FBN's scaremongering propaganda and the scientific community resumed its investigations into the therapeutic properties of the 'forbidden grass', as a result of which $\Delta 9$ -THC was successfully synthesised in 1965.

In August 1971 certain secret Defence Department documents were declassified. While at NIMH as a consulting research psychiatrist in 1967 I had become aware of the existence of a clandestine research at Edgewood Arsenal in Maryland. From 1954-59, Dr Van S. Sim was in charge of the project. He reported to Medical World News: Marihuana... is probably the most potent anti-epileptic known to medicine today. [\(225\)](#)

During the '70s, the FDA and the DEA bowed to public pressure and agreed to allow doctors to conduct an experimental project, whereby they would be able to use capsules of synthetic $\Delta 9$ -THC and joints of natural marihuana to combat nausea and vomiting. At the same time, thirty-four states legalised the use of cannabis for medical reasons. Nonetheless, marihuana remained - and remains - on Schedule I of Controlled Substances.

In the '80s, the vast body of data amassed by the federal research programmes proving natural marihuana's therapeutic value for very serious complaints made it imperative that its legal status be changed. This went totally against Reagan and Bush's 'anti-drug policy'.

In 1985, the US government tried to play for time by adopting a compromise solution. Having proclaimed, until 1979, that "cannabis had no therapeutic value", the US Department of Health and the FDA now acknowledged and made available to the public a version of synthetic $\Delta 9$ -THC called dronabinol, which was manufactured and marketed, as Marinol, by Eli Lilly. (226) It was originally indicated for the side-effects of chemotherapy, and later began to be used with some success as an appetite stimulant for AIDS victims. Soon afterwards, dronabinol was joined by another form of synthetic $\Delta 9$ -THC, nabilone, purveyed on the market as Cesamet. Thus, for the first time in half a century, a few cracks began to appear in the edifice of total control erected by the prohibition brigade within the power bloc.

But in 1991, on the order of George Bush, who insisted that his repressive anti-drug policy be implemented, the US Department of Health tried to put a stop to research into the therapeutic applications of marihuana by slashing the federal programmes' budgets and discouraging or intimidating researchers. Furthermore- and this was even more serious - it attempted to have all the data amassed by the arduous efforts of thirty years of research (1960-90) destroyed, displaying a mentality and adopting methods worthy of Nazi and Communist totalitarianism.

Apart from anything else the decision also hampered the development of new drugs based on cannabis, which oh-so-coincidentally, enabled Eli Lilly's products to continue monopolising the market, as they had done since 1985. (George Bush, let us not forget, became a director of Eli Lilly after leaving the CIA in 1977, and the Bush family holds a considerable number of shares in the company.)

In 1973, Dr Tod Mikuriya conducted a systematic investigation of the relevant medical literature and summarised the 'Possible Therapeutic Applications of Tetrahydrocannabinols and Like Products' as follows:

Analgesic-hypnotic, appetite stimulant, antiepilepticantispasmodic, prophylactic and treatment of neuralgias, including migraine and tic douloureux, antidepressanttranquillizer, antiasthmatic, oxytocic, antitussive, topical anaesthetic, withdrawal agent for opiate and alcohol addiction, childbirth analgesic 2277 antibiotic, intraocular hypotensive, hypothermogenic. (227)

And in 1990, Professor Jerome Jaffe fully corroborated Dr Mikuriya in Goodman and Gilman's The Pharmacological Basis of Therapeutics, the most authoritative textbook of pharmacology and therapeutic practice in the field of mainstream medicine:

Marihuana, $\Delta 9$ -THC, and certain synthetic analogs have one established and several potential therapeutic applications. Some synthetic cannabinoids may find use as analgesics or anticonvulsants. The capacity of some natural and synthetic cannabinoids to lower intraocular pressure has had little

clinical utility to date. Δ^9 -THC and a synthetic cannabinoid, nabilone, are now available for oral use as antiemetics. They are indicated for control of nausea associated with chemotherapy. (228)

The therapeutic value of cannabis and its derivatives is now proven and accepted for the following broad range of pathological conditions:

- 1) Glaucoma (intraocular hypertension)
- 2) Side-effects of chemotherapy (nausea and sickness)
- 3) Asthma
- 4) Epilepsy and spasms
- 5) Depression and anorexia
- 6) Pain of varying aetiology
- 7) Cancer
- 8) Dependence on opiates and alcohol

Cannabis has four major advantages which make it unique from a therapeutic point of view:

- 1) It is the least toxic of the available drugs.
- 2) It has a wide range of therapeutic applications.
- 3) It acts in a different way from other drugs.
- 4) It can be combined effectively and safely with any drug.

1. Glaucoma (intraocular hypertension)

The term glaucoma refers to a number of ophthalmic problems that are all characterised by increased endophthalmic pressure, which damages the optic nerve, leading to reduced vision and ultimately blindness.

The drugs available today (myotics, carboanhydrasis inhibitors, adrenaline) do not cure even the most common forms of glaucoma, are extremely ineffective, are not suitable for all sufferers, have serious side-effects, and have to be taken for the rest of the patient's life. Sufferers who do not respond to them or who cannot tolerate or counteract their serious side-effects are forced to choose between a high-risk surgical operation of dubious effectiveness and blindness. Glaucoma is the second commonest cause of blindness in the United States, and every year it claims the sight of more than 240,000 people worldwide.

The existing treatments for glaucoma do no more than control its various manifestations to a slight extent. Myotic drugs cause blurred vision in daylight, which becomes worse in low lighting conditions, are implicated in the development of cataracts, and predispose the patient to ragoiditis and detachment of the retina. Carboanhydrasis inhibitors block the production of the watery fluid in the eye by suppressing the action of the carboanhydrasis that is essential to its formation. Normal doses cause

colicky abdominal or stomach pains, nausea, salivation, diarrhoea, hyperhidrosis, hot flushes, conjunctival congestion, pain in the eyelids, and teariness; large doses cause dyspnoea and affect the functioning of the heart. Adrenaline or epinephrine is used as a conjunctival decongestant in the form of drops or ointment.

By 1972 numerous observations, investigations, and reports had been conducted and produced on the effects of marihuana and its derivatives on glaucoma sufferers, and they opened up new, hopeful prospects for dealing with the endophthalmic hypertension associated with glaucoma.

While scientists were studying the effects of known doses of marihuana on young male volunteers, it was observed that one of the effects was a reduction of arterial pressure in the eye. They supposed that since this was the case with normal subjects it might also be the case with glaucoma sufferers. And so it proved to be. [\(229\)](#)

In the context of the lengthy cannabis investigation planned and funded by the National Institute on Drug Abuse, efforts in this sphere focused on the effects on glaucoma patients of (i) smoking marihuana, (ii) oral administration of $\Delta 9$ -THC, and (iii) intravenous administration of $\Delta 9$ -THC. [\(230\)](#)

1) SMOKING MARIHUANA AND ORAL ADMINISTRATION OF $\Delta 9$ -THC

This was a double-blind experiment conducted by Robert Hepler, Ira Frank, and Robert Petrus of the Medical School of UCLA at the NIDA's request. [\(231\)](#)

The subjects were male volunteers aged between 21 and 29 years, who were divided into four groups: one group smoked natural marihuana; [\(232\)](#) the second smoked $\Delta 9$ -THC mixed with a marihuana-like placebo; the third took synthetic $\Delta 9$ -THC by mouth; and the fourth group smoked a marihuana-like placebo without $\Delta 9$ -THC. Having fully evaluated their findings, the researchers announced:

The amount of pressure drop was in the range of 30% for 2 % THC and natural marihuana. The placebo also showed consistent mild pressure drop, the effect approximating 10% pressure reduction. Since we subsequently observed pressure-reducing effects with cannabinoids other than THC, our THC-eluted marihuana may have contained significant amounts of other active agents... There are no indications so far of any deleterious effects of marihuana smoking on visual function or ocular structures. There is reason to suspect that the mechanism of pressure reduction induced by marihuana smoking may differ from the mechanism of action of standard antiglaucoma drugs presently in use. [\(233\)](#)

2) INTRAVENOUS ADMINISTRATION OF CANNABINOIDS

The NIDA assigned the relevant study to Mario Perez-Reyes, Donna Wagner, Monroe Wall, and Kenneth Davis - all researchers in the Medical School of the University of North Carolina. They summed up the study and their findings as follows:

Six different cannabinoids were intravenously infused to normal subjects, and their effect on intraocular pressure was measured. Δ 8-THC, Δ 9-THC, and 11-hydroxy- Δ 9-THC produced significant reductions in intraocular pressure, whereas 8 β -OH- Δ -THC, and cannabidiol were less effective. [\(234\)](#)

It is now generally accepted that "when smoked, given intravenously, or taken orally, cannabis, THC, and other cannabinoid derivatives have been found to reduce the vision-threatening intraocular pressure of glaucoma", [\(235\)](#) and since 1990 synthetic Δ 9-THC in the form of eye-drops has been available on the market.

2. Side-effects of chemotherapy (nausea and vomiting)

Despite the prohibition brigade's hopes to the contrary, the therapeutic value of cannabis is widely recognised today in addressing the side-effects of chemotherapy undergone by cancer patients. Special preparations are already available for this purpose.

In the eighth edition of *The Pharmacological Basis of Therapeutics* (1990), Professor Jerome Jaffe writes: Δ 9-THC and a synthetic cannabinoid, nabilone, are now available for oral use as antiemetic. They are indicated for control of nausea associated with chemotherapy. [\(236\)](#)

In the third edition of their textbook, *A Handbook on Drug and Alcohol Abuse* (1992), Drs Gail Winger, Frederick Hofmann, and James Woods note:

THC and its synthetic analogs have been evaluated for their ability to suppress severe nausea and vomiting in patients undergoing some types of cancer chemotherapy. [\(237\)](#)

3. Asthma

Marihuana was systematically used in the treatment of bronchial asthma in the nineteenth century, but it has recently been ascertained that the ingestion of Δ 9-THC via the respiratory or the digestive system causes noticeable bronchial dilation in healthy young people. This naturally raised the question of whether marihuana has a similar effect on people suffering from complaints involving bronchial contraction, which would mean it could be used to treat asthma attacks. The latest research shows that marihuana does indeed have such an effect.

The NIDA asked Drs L. Vachon, P. Mikus, W. Morrissey, M. Fitzgerald, and E. Gaensler of the Medical School of Boston University to study the effect on asthma of smoking marihuana. The subjects were 17 volunteers aged between 18 and 30 with a history of asthma; all but one of the seventeen had a relation who suffered from asthma.

The effects of a single administration of marijuana smoke on bronchial mechanics were studied in a group of asthmatic subjects. The diagnosis of asthma was made on the basis of history and evidence of reversible airway obstruction; the subjects were free of symptoms at the time of testing. They received a standard volume of a mixture of air and smoke from natural marijuana containing one of two different concentrations (1.9% and 0.9%) of Δ -THC. Both concentrations showed significant and prolonged reversal of the bronchoconstriction as well as significant but shorter duration of tachycardia. [\(238\)](#)

The NIDA also asked Drs P. Tashkin, B. Shapiro, and Ira Frank, of the UCLA Medical School to study the direct effects of marijuana on airway dynamics in spontaneous and artificially induced bronchial asthma.

Previous studies have shown that both smoked marijuana and oral Δ 9-tetrahydrocannabinol (THC) produce significant acute bronchodilatation in healthy young males. We present data on 10 subjects with clinically stable bronchial asthma of mild to moderate severity in whom acute effects of smoked 2% natural marijuana (7 mgm/kg) and oral Δ 9-THC (15 mgm) on plethysmographically determined airway resistance (RAW) and specific airway conductance (SGAW) were compared with those of placebo using a double-blind crossover technique. After smoked marijuana, SGAW rose immediately and remained significantly elevated (33 to 48% above initial control values) for at least 2 hr, whereas RAW did not change after placebo. The peak bronchodilator effect of 1250 μ g of isoproterenol was greater than that of marijuana, but the effect of marijuana lasted longer. After ingestion of 15 mgm of THC, SGAW was elevated significantly at 1 and 2 hr, and RAW was reduced significantly at 1 to 4 hr, whereas no changes were noted after placebo. In 6 asthmatic subjects, bronchospasm (> 30% decrease in SGAW) was induced by exercise on a bicycle ergometer or treadmill or by inhalation of 0.25 to 1.25 mgm methacholine. Following induction of bronchospasm, subjects smoked 2% marijuana or placebo or inhaled 1,250 μ g isoproterenol or saline in a single-blind fashion. Bronchospasm was promptly reversed by smoked marijuana and inhaled isoproterenol but not by smoked placebo or inhaled saline. The above findings indicate that in stable asthmatics smoked marijuana and oral THC cause significant bronchodilatation of at least 2 hr duration and that smoked marijuana is capable of reversing experimentally induced bronchospasm. [\(239\)](#)

4. Epilepsy and spasms

In 1949, J. Davis and H. Ramsey studied the antispasmodic effects of cannabis on five epileptic children who were being treated with phenobarbitone and dilantin. The results were extremely encouraging.

The demonstration of anticonvulsant activity of the tetrahydrocannabinol (THC) congeners by laboratory tests prompted clinical trial in five institutionalized epileptic children. All of them had severe symptomatic grand mal epilepsy with mental retardation... Two isomeric 3-(1,2-dimethylheptyl) homologs of THC were tested, Numbers 122 and 125A, with ataxia potencies fifty and eight times, respectively, that of natural marijuana principles. Number 122 was given to 2 patients for three weeks and to 3 patients for seven weeks. Three responded at least as well as to previous therapy; the fourth

became almost completely and the fifth entirely seizure free... [only] the second patient [had] a brief paranoid behaviour 3.5 weeks later; similar episodes had occurred prior to cannabis therapy. Other psychic disturbances or toxic reactions were not manifested during %e periods of treatment. Blood counts were normal. [\(240\)](#)

In 1969, prompted by the results of research, Professor Tod Mikuriya included spasms and epilepsy in the list of conditions on which cannabis might have a therapeutic effect. [\(241\)](#) And in 1990, in view of the findings of research during the intervening twenty years, Professor Jerome Jaffe confirmed Mikuriya's assessment, and stated that "some synthetic cannabinoids may find use as analgesics or anticonvulsants." [\(242\)](#)

5. Depression and anorexia

The weight loss, suffering, and depression arising out of the despair and anguish of impending death are the main symptoms of people with advanced cancer. They are difficult to treat because the available drugs used to control them at present are extremely inadequate and ineffective.

Reports by earlier researchers that $\Delta 9$ -THC produces euphoria, stimulates the appetite, and has notable analgesic and anti-emetic effects made it a very attractive proposition to study cannabis as a means of helping cancer patients. It naturally drew the interest of the medical world and the NIDA, which latter asked a team of scientists to investigate the appetite-stimulating, anti-depressive, analgesic, and anti-emetic effects of cannabis in the context of the complex research programme for the Pharmacology of Marihuana (1967-70).

Drs W. Regelson, T. Kirk, M. Green, J. Schulz, and M. Zalis of the Medical School of Richmond University, in association with Professors Butler and Peek of the Psychology Department of Denton University, Texas, conducted double-blind experiments [\(243\)](#) to investigate the effects of $\Delta 9$ -THC on both in-patient and out-patient cancer sufferers, and they summed up their work and their findings as follows:

Our data suggest that $\Delta 9$ -THC has value as an antidepressant and can be of value in the management of both in-patient and out-patient cancer patients - provided somnolence, dizziness, and depersonalization do not result in early discontinuation. The potential of $\Delta 9$ -THC is clear; many patients with advanced cancer are depressed and anxious. Indeed, the despondency and anxiety engendered by cancer destroy the quality of life that remains and become in many patients more important than the organic problems produced by the disease itself. The depression and anxiety in many cancer patients are by no means symptomatic of an unstable personality or an endogenous depression; rather, they are clearly a common response to a catastrophic event that is extremely difficult to deal with as the usual reassurances or psychic-energizers (antidepressants) have little or negative effects. Previous attempts at psychometric evaluation of marihuana (Zinberg and Weil, 1970; Hogan, Manakeon, Conway, and Fox, 1970; McGlothlin and Rowan, 1970) have aimed primarily at the personality and life-history correlates of

reactional use. The cancer population is obviously a nonuser group with special characteristics. This study represents an attempt to define and to determine the effects of $\Delta 9$ -THC on that group with particular reference to changes in the despondency that so uniquely characterizes cancer... Of fundamental importance is the almost complete absence of subjective euphoria or high reported in experienced users (by high we mean a euphoric state subjectively apparent to the drug recipient)... One of the previously reported psychological effects of $\Delta 9$ -THC that failed to appear among our subjects was suspiciousness... The foregoing results, considered with the clinical observations of the effects of $\Delta 9$ -THC demonstrating significant slowing and occasional reversal of the characteristic weight loss associated with cancer, as well as trends toward analgesic and antiemetic effects, suggest promising further study of the efficacy of $\Delta 9$ -THC as a supportive treatment for the control of secondary symptoms in cancer patients... As in a previous study (Lowe and Goodman, 1974), weight gain was demonstrated in more than half the medicated subject. That may be interpreted as further evidence that $\Delta 9$ -THC has appetite-stimulating properties, as shown earlier (by Freedman and Rockmore, 1946; Hollister et al., 1968; Clark, Hughes, and Nakashima, 1970)...

Summary: $\Delta 9$ -THC in cancer patients at acceptable dosage (0.1 mg t.i.d., orally) had the effect of a tranquillizer and mild mood elevator, clearly without untoward effects on cognitive functioning and apparently without untoward effect on personality or emotional stability - at least as can be measured by psychological tests. Medically, the clinical notes and weight data suggest that $\Delta 9$ -THC stimulates appetite and helps retard the chronic weight loss associated with cancer, and hint at some antiemetic and analgesic benefit.. [\(244\)](#)

6. Pain of varying aetiology

At the invitation of the NIDA, R. Noyes, S. Bruk, D. Daran, and A. Canter of the Department of Pathology and Psychiatry of Iowa University's Medical School investigated the analgesic effects of $\Delta 9$ -THC on cancer patients and concluded that:

A preliminary trial of oral THC demonstrated an analgesic effect of the drug in patients experiencing cancer pain. Placebo and 5, 10, 15 and 20 mg THC were administered double-blind in 10 patients. Pain relief significantly superior to placebo was demonstrated at high dose levels (15 and 20 mg combined). At these levels, substantial sedation and mental clouding were reported. [\(245\)](#)

7. Antitumour effects

In 1976 the results were published of the investigation carried out for the NIDA by L. Harris, A. Munson, and R. Carchman of the Medical School of Richmond University into the inhibitory effect of some cannabinoids on certain neoplasms,[\(246\)](#) as a contribution to the discussion prompted by contrary conclusions reached by various earlier studies on animals [\(247\)](#) and human beings [\(248\)](#)

One interesting conclusion from our study is that cannabinoid activity against neoplasms may not be related to their behavioural properties, since cannabinal, which is essentially behaviourally inactive, is effective in our systems. Our results add a new perspective to the increasing body of evidence that Δ^9 -THC, though behaviourally active, has other cellular actions that may have greater importance in the long run since they may lead to the development of a new class of therapeutic agents. We hope that our model systems will provide the means by which nevi and more active antitumor agents can be developed. [\(249\)](#)

8. Detoxification of alcoholics and drug addicts

Modern research into the use of cannabis and cannabis products in the detoxification or maintenance of people dependent on alcohol, drugs, and other addictive substances is based on the therapeutic experience and accumulated knowledge of the medical use of cannabis over the last hundred years as a means of coping with withdrawal symptoms and as a substitute for the substances in question.

In 1887, H. H. Kane published his observations on the successful use of cannabis as a substitute with alcoholics. They were corroborated in 1889 by E. Birch, who administered cannabis to his opium-addicted clients "in treating addictions to opium and chloral hydrate" [\(250\)](#) and in 1891 by J. B. Mattison, who concluded that cannabis "has proved an efficient substitute for the poppy". One of the morphine addiction cases he described was a naval surgeon, "nine years a ten grains daily subcutaneous morphia taker... [who] recovered with less than a dozen doses." [\(251\)](#)

In 1942, S. Allentuck and K. Bowman established that cannabis derivatives are effective in allaying withdrawal symptoms in opium addicts. In their study of forty-nine people dependent on opiates, they observed that "the withdrawal symptoms were ameliorated or eliminated sooner, the patient was in a better frame of mind, his spirits were elevated, his physical condition was more rapidly rehabilitated, and he expressed a wish to resume his occupation sooner." [\(252\)](#)

In 1953, L. Thompson and R. Proctor announced the results of their satisfactory use of a synthetic cannabis product (pyrahexil) for withdrawal symptoms exhibited by patients dependent on alcohol, barbiturates, and certain other addictive substances, and they agreed with Allentuck and Bowman that the use of cannabis did not give rise to biological or psychological dependence and that the discontinuance of the drug did not result in withdrawal symptoms. [\(253\)](#)

After the Korean War, when Cold War hysteria was at its height, cannabis and the other 'narcotics' were "associated directly with the Communist conspiracy". [\(254\)](#) As a result, the penal sanctions for using them became extremely harsh [\(255\)](#) and research into their therapeutic properties was halted. Research began again in the mid-sixties, when the draconian penal restrictions were eased somewhat, and still continues today, with remarkable results, in the context of programmes set up by various state-run and private organisations under the supervision of the US Department of Health. [\(256\)](#)

9. Pharmaceutical products based on cannabis

Nowadays, the medical profession is becoming increasingly aware of the therapeutic value of cannabis, which is undoubtedly helping to drastically undermine the simplistic scaremongering of those who want it banned and its users prosecuted. More and more doctors are actively supporting the demand that doctors and not politicians should decide about the therapeutic uses of any particular substance, in accordance with the findings of scientific research and not on the basis of repressionist ravings. [\(257\)](#)

A number of pharmaceutical products containing Δ 9-THC are already available in the United States, being used to counteract the nausea and vomiting associated with cancer chemotherapy and to restore lost appetite. This closely reflects the modern attitudes towards cannabis that are developing all over the world. [\(258\)](#) The first drugs of this kind that were used in 1985 were dronabinol (marketed as Marinol) and nabilone (marketed as Cesamet). Nabilone was placed on Schedule II of Controlled Substances on the disingenuous grounds that it "produces subjective effects similar to those of Δ 9-THC", despite the fact that its side-effects are negligible in comparison with those of the drugs used hitherto. The argument was that the public had to be 'deterred' from using it for nonmedical purposes.

Cannabis is totally non-toxic, does not lead to physical dependence, and is without a doubt the least dangerous of all the existing euphoricants and the safest of all the therapeutic substances in the armoury of medical science. This has been publicly acknowledged by the American National Institute of Mental Health, which, as long ago as 1971, declared that with regard to toxicity, cannabis products must be considered the safest of all broadly applied remedies. [\(259\)](#)

217 J. R. Reynolds, 'Therapeutic and Toxic Effects of Cannabis Indica', *The Lancet*, vol. 1 (1890), 637-9; reprinted in T. Mikuriya, *Marihuana: Medical Papers* (1973), 145-9.

218 B. O'Shaughnessy, *On the Preparations of the Indian Hemp or Gunjah* (1839); reprinted in T. Mikuriya, *Marihuana: Medical Papers* (1973), pp.3-30.

219 L. Grinspoon, *Marihuana Reconsidered* (1977), pp.219-20.

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639; reprinted in T. Mikuriya, *Marihuana: Medical Papers* (1973), pp. 145-9.

223 J. B. Mattisson, 'Cannabis Indica as an Anodyne and Hypnotic', *The St Louis Medical and Surgical Journal*, vol. LVI, 5 (1891), 265-71; reprinted in T. Mikuriya, *Marihuana: Medical Papers* (1973), pp. 151-7.

224 See Chapter 3: 'The Age of Prohibition'.

225 T. Mikuriya, *Marihuana: Medical Papers, 1839-1972* (1973), p.xxii.

226 Dronabinol (Marinol) was placed on Schedule II of Controlled Substances (requiring a special prescription).

227 T. Mikuriya, *Marihuana: Medical Papers*, (1973), p.xxiv.

228 J. Jaffe, 'Drug Addiction and Drug Abuse', in Goodman and Gilman, *The Pharmacological Basis of Therapeutics* (1990), p.553.

229 J. Jaffe, R. Peterson and R. Hodgson, *Addictions* (1981), p.80.

230 The research was carried out on the initiative of the 'Centre for the Study of Narcotics and Drug Abuse' (a section of the NIMH), which is now known as the NIDA. The results were published by Raven Press in 1976 in the collective volume *Pharmacology of Marihuana: A Monograph of the National Institute on Drug Abuse*, edited by the clinical pharmacologist Monique Braude and the biochemist Stephen Szara, both of whom hold managerial posts in the NIDA's research department.

231 R. Hepler, I. Frank, and R. Petrus, 'Ocular Effects of Marihuana Smoking', in Braude and Szara, eds., *The Pharmacology of Marihuana*, (1976), pp.815-24.

232 The quantity (7 mg/k) and Δ^9 -THC content (1 %, 2%, and 4%) were fixed.

233 R. Hepler, I. Frank, and R. Petrus (1976), *ibid.*, pp. 816 and 824.

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235 C. Carrol, *Drugs in Modern Society* (1993), p.346.

236 E. Jaffe, 'Drug Addiction and Drug Abuse', in Goodman and Gilman, *The Pharmacological Basis of Therapeutics* (1990), p.553.

- 237 G. Winger, F. Hofmann, and J. Woods, *A Handbook on Drug and Alcohol Abuse*, (1992), p.130.
- 238 L. Vachon, P. Mikus, W. Morrissey, M. FitzGerald, E. Gaeader, 'Bronchial Effect of Marijuana in Asthma', in Braude and Szara, eds, *The Pharmacology of Marijuana*, (1976), p.784.
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- 244 W. Regelson et al., ' Δ^9 -THC as an Effective Antidepressant and Appetite-stimulating Agent in Advanced Cancer Patients', in Braude and Szara, eds., *The Pharmacology of Marijuana* (1976), vol. 2, p.763-76.
- 245 R. Noyes et al., ' Δ^9 -THC Analgesic Effects of Δ^9 -THC', in Braude and Szara, eds., *The Pharmacology of Marijuana* (1976), pp.833-6.
- 246 L. S. Harris, A. E. Munson and R. A. Carchman, 'Antitumor Properties of Cannabinoids', in Braude and Szara, eds., *The Pharmacology of Marijuana* (1976), pp.749-62.
247. A. Singer (1971); A. Zimmerman and D. McClean (1973); J. Levy et al. (1974).
- 248 C. Luchtenberger (1973); R. Kolodny (1974); M. Stenchener (1974); J. Jaffe (1990), p.553.
- 249 L. Harris et al., in Braude and Szara, eds., *The Pharmacology of Marijuana* (1976), p.761.
- 250 L. Grinspoon, *Marijuana Reconsidered* (1977), p.223.
- 251 L. Grinspoon, *Marijuana Reconsidered* (1977), p.220.
- 252 S. Allentuck and K. Bowman, 'The Psychiatric Aspects of Marijuana Intoxication', *American*

Journal of Psychiatry, 99 (1942), p.250.

253 L. Thompson and R. Proctor, 'Pyrahexyl in the Treatment of Alcoholic and Drug Withdrawal Conditions', North Carolina Medical Journal, 14 (1953), pp.520-3.

254 David Musto, The American Disease (1987), p.231.

255 The Hale Boggs Bill of 1951, it will be remembered, imposed a five-year prison sentence (for a first offence) and life imprisonment (for a second offence) for possession or use of any illicit substance. And it recommended the death sentence for an adult selling heroin to a minor under eighteen.

256 One example is the New Drug Investigations (NDI), which are regulated by special protocols.

257 An International Medical Marihuana Movement (San Francisco Headquarters, 3745 Seventeenth Street, San Francisco, CA 94114, USA) has already been organised, based in San Francisco, to coordinate doctors' efforts to impose respect for the basic premise that doctors, not politicians, should decide about medical matters.

258 See, e.g., Pomeroy et al. (1986); Manzo (1988).

259 US Department of Health (1972). The NIMH is a section of the US Department of Health.

Chapter Seven Conclusion

From what I have said in this book, it is obvious that the prohibition of cannabis and the persecution of its users were designed to serve the combined interests of the government, the oil, petrochemical, pharmaceutical, tobacco, and alcohol industries, and those circles which once had their own reasons for maintaining the racist status quo to the disadvantage of the black and Mexican minorities.

The purpose of the anti-cannabis campaign launched at the demand of all these interested parties was on the one hand to control and manipulate the cheap black and Mexican labour force, and on the other to maintain the monopoly on the production and sale of the above-mentioned industries' toxic products, whose only appreciable rival was the non-toxic products of cannabis.

Sound medical, political, economic, and ecological reasons make it vital to reconsider the senseless policy of prohibiting cannabis, the cost of which society can no longer bear or tolerate. The ravings of the prohibition brigade cannot and must not continue to regulate society's options and increasingly undermine its cohesion.

While there is still time, it must be realised that what was once a minority behaviour has now become a behaviour of the majority. Three out of five Americans between the ages of 18 and 25 had tried cannabis by 1977. In the same year, out of the population as a whole, 43,000,000 individuals had had at least one experience of cannabis;[\(260\)](#) and by 1990 that figure had risen to 66,500,000.[\(261\)](#) Furthermore, it must be understood that, in the circumstances, the penalties imposed have very little effect. Meanwhile, dealers in illicit toxic substances are making enormous profits, yet the burden of the negative consequences is borne equally by those who use illicit substances and those who do not.[\(262\)](#)

This review of the history of the proscription of cannabis has made it quite clear that its criminalisation springs not from any need to protect users and public health, as the professional repressionists proclaim, but from an authoritarian demand that certain social and political expediencies be served: expediencies relating to the oppression and manipulation of certain social groups (minorities, immigrants, workers) and the grip on production and consumption maintained by industrial behemoths that are exhausting the world's non-renewable resources, shamelessly destroying the environment, and killing all prospects for the survival of life on this planet. These expediencies are connected:

- 1) with protection of the interests of the industrial giants that control large parts of the petrochemical, pharmaceutical, alcohol, tobacco, and paper sectors;
- 2) with a constant endeavour to strengthen the 'white market' of legal addictive substances (alcohol, tobacco, tranquillisers) and to boost the black market of illegal addictive substances (opiates, etc.), in which there are incalculable profits to be made;
- 3) with the preservation of the production and consumption values of the competitive society and the

dead-end industrial culture, because the authoritarian network which has an interest in maintaining the attack on cannabis is able to cultivate and systematically propagate the myth that cannabis "renders its users indifferent to the norms that characterise these values."

Despite the harsh repression and assaults on cannabis, in recent years there has been a significant increase in the number of people who admit to having tried it or one of its derivatives. This is just one of the many incontrovertible proofs of the consequences of the theory and practice of repression, which is effective only in producing countless personal and social tragedies.

In the United States alone, in the fifty-seven years that cannabis has been outlawed and its users prosecuted, over 10,000,000 arrests have been made, over 2,000,000 sentences have been passed, and people have been sentenced to a total of over 12,000,000 years in prison for simply possessing, growing, or using cannabis, with the result that millions of innocent people's lives have been ruined. This unprecedented human sacrifice on the altar of senseless prohibition must be stopped. In the name of reason, justice, and the interests of all humankind, the Athenians must stop offering up their children as prey to the insatiable blood-lust of the Minotaur of prohibition.

The banning of mind-affecting substances and the mass ritual human sacrifice that accompanies it together constitute a hideous crime against the individual, against society, against civilisation, and against freedom - even if one accepts the myths and fabrications devised by those who support it. The use of any dangerous substance harms no one but the user. Consequently it is a typical act of self-aggression,⁽²⁶³⁾ and as such cannot be subject to any prohibitory or repressive intervention in a civilised society. Because, as John Stuart Mill asserted:

The individual is not accountable to society for his actions in so far as these concern the interests of no person but himself... The only purpose for which power can be rightfully exercised over any member of a civilised community against his will, is to prevent harm to others. His own good, either physical or moral, is not a sufficient warrant, he cannot rightfully be compelled to do or forbear because it will be better for him to do so, because it will make him happier, because, in the opinions of others, to do so would be wise or even right... In the part which merely concerns himself, his independence is, of right, absolute. Over himself, over his own body and mind, the individual is sovereign. ⁽²⁶⁴⁾

260 J. Jaffe, R. Peterson, and R. Hodgson, Addictions (1980), pp.80-1.

261 C. Carroll, Drugs in Modern Society (1993), p.331.

262 J. Jaffe, R. Peterson, and R. Hodgson, Addiction (1980), p.81.

263 The view that the procuring, possession for personal use, and use of illicit substances are acts of self-aggression is exhaustively analysed and substantiated by Professor Nikos Paraskevopoulos in The

Suppression of Drug Use in Greece.

264 John Stuart Mill, *On Liberty* (1859) (London, Penguin Books, 1985, pp.68-9 and 136)

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Tables

1. Identity of Cannabis

Species

Cannabis

Varieties

Cannabis sativa, Cannabis indica, Cannabis ruderalis

Description

Dioecious plant, self-sown and cultivated

Active ingredients

- 1) Δ 9-Tetrahydrocannabinol or Δ 9-THC
- 2) Δ 8-Tetrahydrocannabinol or Δ 8-THC

Δ 9-THC

The main active ingredient of cannabis. Heavily concentrated in the flower-bearing parts of the plant. Indissoluble in water, soluble in organic solvents. With the passage of time it oxidises and becomes Δ 6-THC.

Concentration of Δ 9-THC: In marihuana: 0.5-4% (usual content: 1-2%). In hashish: 8-15% (usual content: 10%)

Derivatives

- 1) MARIHUANA: mixture of all parts of the cannabis plant (flowers, leaves, stems), which are dried, chopped, and smoked. Green in colour.
- 2) HASHISH: tablets of unprocessed resin produced by the sepals when compressed under heat. Dark in colour.
- 3) HEMPSEED OIL: thick, viscous substance extracted from the sepals using ethyl alcohol, which subsequently evaporates.

2. Medical Uses of Cannabis

Therapeutic applications

1. Endophthalmic hypertension (glaucoma)
2. Side-effects of chemotherapy
3. Asthma
4. Depression and anorexia

5. Pain of varying aetiology
6. Epilepsy and spasms
7. Dependence on alcohol and opiates
8. Various neoplasias

THC preparations

1. Dronabinol (marketed as Marinol)
2. Nabilone (marketed as Cesamet)

3. Reports of Official Commissions

1894 United Kingdom: The Indian Hemp Drugs Commission Report Report of the Indian Hemp Drugs Commission

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1992 European Union: On the spread of organized crime in the EU Report of the Examining Committee of the European Parliament

ALL THESE REPORTS AGREE THAT CANNABIS:

- 1) does not lead to dependence;
- 2) has no negative biological effects when used in moderation; even when abused, however, its effects are far less serious than those of alcohol or tobacco;
- 3) has no aetiological connection with the use of addictive substances; it is not a preliminary stage to the use of addictive substances and the 'escalation theory' is consequently untenable;
- 4) is not a factor in crime.

4. Effects of Cannabis on Driving Ability

A) Cannabis and Alcohol

	CONTROL GROUP	GROUP 1 Moderate dose of Cannabis	GROUP 2 Large dose of Cannabis	GROUP 3 Moderate dose of Alcohol
Errors	X	X+1-2% or same	X+27%	X+32%
Speed		much slower	a little slower	faster
Lack of co-ordination	1.7	1.9	2.2	2.7

CANNABIS: moderate dose = 1,4 mg THC; large dose = 5,9 mg THC

ALCOHOL: moderate dose = blood alcohol level 0,03%.

Research conducted by Hansteen, Miller, Lonero, Reid and Jones
for the Ganadian Government Comission (1970)

B) Cannabis, Alcohol, Cannabis and alcohol

	CONTROL GROUP	GROUP 1 Large dose of Cannabis	GROUP 2 Moderate dose of Cannabis	GROUP 3 Large dose of Alcohol	GROUP 4 Moderate dose of Alcohol	GROUP 5 Moderate dose of Alcohol and Cannabis
Number of errors on a simple route	75	90	85	130	95	105
Number of errors on a complicated route	160	185	160	195	150	205
Reaction Time	No change	No change	No change	Increased	Increased	Increased

CANNABIS: moderate dose = 1.6 mg THC; large dose = 6.8 mg THC

ALCOHOL: moderate dose = blood alcohol level 0.03%;

large dose = blood alcohol level 0.07%

5. Comparison of Danger Levels of Various Substances

USA (1988): Numbers of deaths per year due to the use of various licit and illicit substances, according to the Department of Health's annual report to Congress.

SUBSTANCES	DEATHS	AETIOLOGY
LICIT SUBSTANCES		
Tobacco	350,000-450,000	Pathological conditions caused by tobacco (lung cancer, cardiovascular complaints, etc.)
Alcohol (1)	150,000+	Pathological conditions caused by alcohol (acute poisoning, cirrhosis of liver, etc.)
Alcohol (2)		The influence of alcohol is responsible for: <ul style="list-style-type: none"> • 50% of road traffic accidents (RTAs) • 80% of fatal RTAs • 65% of murders • 70% of rapes and/or sexual abuse of women • 80% of rapes and/or sexual abuse of children • 83% of cases of domestic violence
Caffeine	2,000-10,000	
Licit drugs	14,000-27,000	Overdose of prescribed drugs or combination with alcohol (e.g. Valium and alcohol together)
Aspirin	1,000	Acute bleeding from the stomach, etc.
Theopoline (anti-asthmatic)	50	Also responsible for 6,500 urgent hospitalisations and 1,000 cases of permanent brain damage p.a.
ILLICIT SUBSTANCES		
Heroin	1,000-1,200	Consumption of adulterated heroin and 'overdose'
Other illicit substances	3,800-5,200	Overdose
Marihuana	0	In the history of medicine there has never been a single report of death from overdose of marihuana. All investigations hitherto have shown marihuana to be the least toxic of available substances. The number of RTAs due to driving under the influence of marihuana is equal to or lower than the number caused by non-users.
DEATHS (total) (USA, annually)	520,000-640,000 4,800-6,400	From LICIT substances From ILLICIT substances

Source: Federal Government's Bureau of Mortality Statistics & National Institute of Drug Abuse, 1988

6. Extent of Use in the USA, 1990 (Marihuana and Hashish)

AGE GROUPS	POPULATION	USE (1)	%	USERS (2)	%
Minors (12-17)	19,977,918	2,954,000	15	1,030,000	5
Young adults (18-25)	29,090,582	15,140,000	52	3,692,000	13
Adults (26+)	152,189,483	48,413,000	32	5,483,000	4
TOTAL	201,257,983	66,507,000	33	10,205,000	6

Source: National Household Survey on Drug Abuse, 1990, National Institute on Drug Abuse (NIDA)

(1) Use: Those who have used marihuana or hashish at least once in their life.

(2) Users: Those who have used marihuana or hashish at least once in the month prior to the survey.

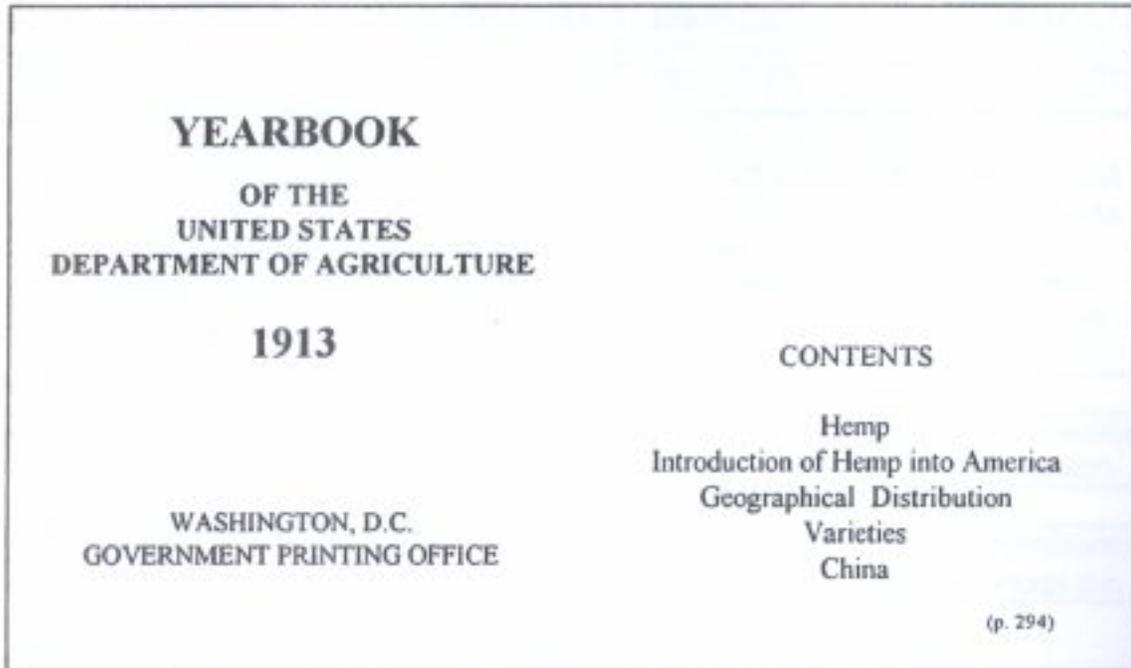
265 E. Brecher, *Licit and Illicit Drugs* (1972).

266 Chaired by Sen. Eastland.

267 *Drug Survival News* (Jan.-Feb. 1978) and *The Journal* (April 1978).

Documents

1. United States Department of Agriculture Yearbook of 1913, p294



2. United States Department of Agriculture,
Bulletin No. 404, 1916

UNITED STATES DEPARTMENT OF AGRICULTURE

BULLETIN No. 404

Contribution of the Bureau of Plant Industry
WM. A. TAYLOR, Chief

Washington, D.C. PROFESSIONAL PAPER October 14, 1916

HEMP HURDS AS PAPER-MAKING MATERIAL

By

LYSTER H. DEWEY, Botanist in Charge of Fiber-Plant Investigations and
JASON L. MERRILL, Paper-Plant Chemist, Paper-Plant Investigations

CONTENTS

The production and handling of hemp hurds
by Lyster H. Dewey:

What hemp hurds are
Pith, wood and fiber
Character of hurds affected by retting
Proportion of hurds to fiber & yield per acre
Present users of hemp hurds
Present suppliers of hurds available
Baling for shipment
Cost of baling
Summary

The manufacture of paper from hemp hurds
by Jason L. Merrill

Introduction
Factors justifying an investigation of hemp hurds
Character of the material
Character of the tests
Operation involved in the tests
Description of the tests
Comparison of the tests and commercial practices
Physical tests of the papers produced
Conclusions

In preparing the report on the manufacture of paper from hemp hurds it became evident that a short discussion of the agricultural aspects of this material should be included in the publication. Such an article was prepared, therefore, and two reports are here presented together.

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

3. United States Internal Revenue Department Tax Stamp issued under The Marihuana Tax Act of 1937



The Marihuana Tax Act of 1937 restricted cannabis. Officially it imposed a tax in the form of a special stamp, which had to be purchased and affixed to all medical prescriptions containing cannabis and to any permit for the production or supply of cannabis. In practice it penalised all such activities, because the stamps were issued and supplied at the exclusive discretion of the Internal Revenue Department, and were in fact never made available to private individuals. During the War, though, the United States Government issued hundreds of thousands of \$5 stamps to encourage people to grow cannabis, for it was suddenly 'essential to cover military and civilian needs'.

4. US Department of Agriculture, 1942
 'Hemp for Victory'
 A Film produced by the Dept. Of Agriculture,
 Extolling the Virtues of Cannabis

<p>THE LIBRARY OF CONGRESS CATALOGS The National Union Catalog</p> <p>A Cumulative Author List Representing Library Congress Printed Cards and Titles by Other American Libraries</p> <p>COMPILED BY THE LIBRARY OF CONGRESS WITH THE COOPERATION OF THE COMMITTEE ON RESOURCES OF AMERICAN LIBRARIES OF THE AMERICAN LIBRARY ASSOCIATION</p> <p>1953-1957 VOLUME 28</p> <p>MOTION PICTURES AND FILMSTRIPS J. W. EDWARDS, INC. ANN ARBOR, MICHIGAN</p>	<p>Hemp for Victory (Motion picture) US Department of Agriculture, 1942. 14 min, ad., b/w, 16 mm</p> <p>Summary: Explains that the war cut off the supply of East Indian coarse fibers, and stresses the need for American-grown hemp for military and civilian uses. Portrays farm practices of hemp growers in Kentucky and Wisconsin.</p> <p>Another issue: 35 mm. 1. HEMP-US 1. US Dept. of Agriculture 633.53 Fi E 53-370 US Office of Education Visual Education Service</p>
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Library of Congress Catalogs, vol. 28 (1953-7): The entry for the film 'Hemp for Victory'. The black-and-white film was fourteen minutes long and was issued in 16 mm and 35 mm versions by the US Department of Agriculture in 1942. Five years after the Marihuana Tax Act had severely restricted cannabis, wartime conditions forced the US government to convince farmers of the necessity of growing cannabis 'to cover military and civilian needs'.

5. US Department of Agriculture, 1943 Farmers' Bulletin
No 1935 (1943)

<p>UNITED STATES DEPARTMENT OF AGRICULTURE</p> <p>FARMERS' BULLETIN No. 1935</p> <p>HEMP</p> <p>by B. B. ROBINSON, Senior Agronomist Division of Cotton and Other Fiber Crops, Bureau of Plant Industry, Soils and Agricultural Engineering, Agricultural Research Administration</p> <p>WASHINGTON GOVERNMENT PRINTING OFFICE 1943</p>	<p>CONTENTS</p> <ol style="list-style-type: none">1. What is hemp2. It grows well in the Corn Belt3. How to grow it Soils and Fertilizers Seed When to Plant Seeding Culture4. Varieties to grow5. Enemies6. Harvesting Time to Harvest Machinery7. Retting Underretting and Overretting Sunburning Turning Stalks Testing the End Point8. Picking Up the Retted Stalks9. Extra Care Insures Extra Profit10. Yields
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Cannabis Sativa (E.W. Smith)



- | | | | |
|----|-------------------------|-----|---------------------------|
| 1. | Stem of male plant | 7. | Seed (with the husk) |
| 2. | Stem of female plant | 8. | Seed (husked) |
| 3. | Seedling | 9. | Seed (husked) |
| 4. | Leaf (detail) | 10. | Type of resin gland |
| 5. | Flowers of male plant | 11. | Type of resin gland |
| 6. | Flowers of female plant | 12. | Leaf hair (non-glandular) |

Abbreviations

ABA American Bar Association
ACT Alliance for Cannabis Therapeutics
AMA American Medical Association
APA American Psychiatric Association
APHA American Public Health Association
CCA Cannabis Corporation of America
CIA Central Intelligence Agency
CLU Civil Liberties Union
CU Consumers' Union
DC District of Columbia
DEA Drug Enforcement Administration
DHEW Department of Health, Education, and Welfare (USA)
DSM Diagnostic and Statistical Manual
DTF Drug Task Force
FBI Federal Bureau of Investigations
FBN Federal Bureau of Narcotics
GPO Government Printing Office
IACP International Association of Chiefs of Police
NCMDA National Commission on Marihuana and Drug Abuse
NFPDFY National Federation of Parents for a Drug-Free Youth
NIDA National Institute on Drug Abuse
NIMH National Institute of Mental Health
NORML National Organization for the Reform of Marihuana Laws
NYAS New York Academy of Sciences
PRIDE Parents' Resource Institute for Drug Education
UCLA University of California, Los Angeles
US DA Department of Agriculture (USA)
US DHEW Department of Health, Education, and Welfare (USA)
US DJ Department of Justice (USA)
US GPO Government Printing Office (USA)
 Δ 9-THC Δ 9-Tetrahydrocannabinol