

Hashish and the Decline and Fall of Arab Civilization

By NATHANIEL WEYL

SUMMARY

In addition to the genocidal and aristocidal blows inflicted upon Islamic civilization by the Mongols, these nomad invaders were probably responsible for spreading hashish addiction throughout the Arabic-speaking world. Cannabis use not only causes permanent brain damage, it causes about three times the normal amount of chromosome breaks. Since it persists in the gonads, cannabis may result in damage to the brain and nervous system of a genetic nature which cumulates with each generation of use. If this hypothesis is correct, it may partially explain not only the decline and fall of Arab civilization and the failure of Arabic-speaking peoples to make noteworthy creative contributions to the world during the past several centuries, but also the irrationality, spasmodic violence coupled with lethargy, emotional instability and paranoid attitudes which seem to characterize much of Arab politics and the Arab masses. If the root factor is cumulating brain damage, the contemporary shift of military and political power to the oil-rich Arab states may have ominous implications for the peace and tranquility of the world.

THE MONGOL SCOURGE

Nine years ago, I wrote an article for THE MANKIND QUARTERLY, in which I gave many reasons for the decay of Arab civilization, but suggested that the trauma inflicted by the Mongol invasions was probably the chief causal factor.¹

I have no reason to soften the judgment I then made of the genetically shattering impact of the Mongol incursion on the high-civilization lands of Asian Islam. All nomad eruptions have had their genocidal aspects, but, as Professor Petrushevsky of Leningrad University, wisely observes, the conquests of Jenghiz Khan "were accompanied, not by spontaneous cruelty, but by *the systematic extermination of the civilian population* in a series of towns (Balk, Marv, Nishapur, Herat, Tus, Ray, Qasvin, Hamadan, Maragheh, Ardabil, etc.) and the laying waste of whole regions. The mass-killing was a complete system, put into practice on initiative from above, and had as its goal *the planned destruction of those elements of the population that were capable of resistance*, the intimidation of the remainder, and sometimes the providing of pasture for the nomads."²

The slaughter was concentrated largely in the cities. Even the pro-Mongol historian Juvaini reported that "where there had been a hundred thousand people, there remained . . . not a hundred souls

¹ "The Arab World: A Study of Biogenetic Disintegration," THE MANKIND QUARTERLY, Vol. VIII, No. 1, July-September 1967, pp. 26-43.

² I. P. Petrushevsky, "The Socio-Economic Condition of Iran under the Il-khans," in J. A. Boyle (editor), *The Cambridge History of Iran, Vol. 5: The Saljug and Mongol Periods*, Cambridge University Press, Cambridge, 1968, p. 484. Emphasis supplied.

alive.”³ When Nishapur fell in 1220, some 1,747,000 people were massacred, according to a contemporary source. Ibn-al-Athir says that 700,000 people were killed at the capture of Marv; Juvaini claims 1,300,000. In Herat, Saifi informs us there were 440,000 households and the defending army consisted of 190,000 men. After the conquest and slaughter, Saifi states, only 16 of the original inhabitants survived in the city. Old men told him they first survived by cannibalism, then for the next four years eked out a living by robbing caravans. In the Balk area (today in northern Pakistan), the Mongols burned the granaries and, for a whole year, the surviving remnant lived on cats, dogs and human flesh. When Marco Polo passed through the region, he found it desolate. Ibn Batuta, who was there a century after the Mongol scourge, found it “derelict and deserted.”⁴

In western Asia, Jenghis Khan inflicted a durable genocide, which has thus far prevented the repopulation of its cities and the restoration of its silted irrigation canals. After atom bombs devastated Hiroshima and Nagasaki, the cities were rebuilt. After the Mongol affliction, the entire civilization of eastern Iran, Afghanistan and Transcaucasia simply vanished. Takrit and Zirih, Sar Khoshak and Shahr-i-Gholgola would live only in the memory of archaeologists.

These killings were followed by centuries of despotic rule. Toward the close of the fourteenth century, Timurlenk ravaged India, Iran and Turkestan, piled 5000 human heads into minarets at Zirih, hurled his Luri prisoners alive over cliffs in 1386, massacred 100,000 prisoners in Delhi in 1398, buried alive the Christian defenders of another city, built twenty towers of skulls in Syria in 1400-01 and inflicted equally hideous exterminations in Baghdad.⁵

The scholars, the scribes and the clergy, the upper class, the merchants, and the skilled artisans and masters of specialized trades were, of course, located mainly in the cities. Hence when the Mongols destroyed these, putting everyone to the sword, they decapitated peoples, cutting off their leadership, and thus imposed an immense, possibly an irreparable, genetic handicap on the subjugated populations. The peasants, to be sure, were also slaughtered, enslaved, taken captive or subjected to harsh rule and crippling taxes, but they were more useful to the nomad conquerors and had better opportunities to flee and hide.

The Mongol holocaust was possibly the most aristocidal phenomenon in history prior to the twentieth century. To it has been attributed the backwardness of Russia and eastern Europe and

³ Quoted by Louis Duprée, *Afghanistan*, Princeton University Press, Princeton, 1973, p. 316.

⁴ I. P. Petrushevsky, *op. cit.*, p. 487.

⁵ See the eloquent indictment of Timurlenk in Arnold J. Toynbee, *A Study of History*, Oxford University Press, London, Vol. IV, 1939, p. 500.

their failure to experience any movement comparable to the Renaissance.⁶

In my 1967 article, I considered the Mongol invasions the primary cause for the fact that the Arab world, once a great civilizational center, "is a cultural desert, one that has been suffering from intellectual desiccation for at least five centuries."

I added:

Since the upper classes and the intellectuals were concentrated in the cities, this (Mongol) genocide was selective and served to decimate, if not virtually exterminate, the natural élite of Asian Islam.⁷ After the lethal storm had passed, the Islamic aristocracy of breeding and intelligence was shattered and new elements rose from the rural areas to fill the power vacua. Following this calamity, Arab intellectual creativity in the Middle East collapsed and has not recuperated. After the Mongols, the Arab élite largely abandoned such mentally demanding fields as mathematics, science and philosophy in favor of architecture and painting—disciplines more within the reach of a genetically decapitated society.

The hypothesis is that the Mongols served as a major agency of aristocide and that they were the scythe which destroyed Islamic civilization in Asia by exterminating the Moslem creative minority. In support of this view is the fact that social and intellectual stultification also occurred in other regions exposed to the Mongol scourge.⁸

THE MONGOLS AND CANNABIS

If I were rewriting that article today, I should add that the Mongols probably completed the destruction of Islamic civilization and inflicted irrevocable genetic havoc on Arab mental ability by spreading hashish addiction throughout Islam.

Cannabis addiction has been known in India since time immemorial. In Sanskrit literature, it is referred to as "food of the gods", "glory" and "victory." It was extolled by Hindu writers as a cure for such diverse afflictions as constipation and leprosy.⁹

The use of hashish was probably introduced from India into Persia by the founder of Sufism, a sect of mystics who renounced worldly goods to attain bliss through union with Absolute Being.

⁶ T. Peisker, "The Asiatic Background," *The Cambridge Medieval History*, Macmillan, New York, Vol. I, 1924, Chapter XII (A).

⁷ Not African Islam, because the Mongol invasion of Egypt was repulsed by a Mameluke army.

⁸ National Weyl, *Arab World*, p. 38.

⁹ Gabriele G. Nahas, M.D., *Marihuana—Deceptive Weed*, Raven Press, New York, 1973, pp. 1-2.

By 1155 A.D., *cannabis* addiction is known to have been prevalent among the Sufis of Nisabur.

The most authoritative study available on hashish in medieval Islam concludes that *cannabis* use in the Middle East increased suddenly and dramatically at the time of the Mongol invasions. The Mongols set in motion hordes of refugees, many of them Sufis, who fled westward bringing the drug habit with them. The disasters of the age and the resulting climate of unrest and dread would have made hashish addiction spread like wildfire.¹⁰

Moslem society was an ideal breeding ground for *cannabis* because of the stern and repressive attitude which the Koran takes toward substitute sources of relaxation and pleasure. Wine and gambling were categorically forbidden and, at the time, the religious authorities were able to enforce the prohibition. Hashish became an inexpensive substitute. It cost only a fraction of the price of wine, could be cultivated almost anywhere, and could be concealed without difficulty.

The *ulemas*, or interpreters of Koranic law, were unanimous in their disapproval of hashish eating as "intoxicating . . . corrupting . . ." and ritually unclean. "What was believed to be the most pernicious effect of hashish as far as the individual was concerned was that it led to effeminacy (*takhannuth*) or passive homosexuality (*ubnah, ma'bun*)." ¹¹

The use of *cannabis* was most common among the urban poor and among the sufistic intellectuals. The social élite of Islam considered hashish eating a degrading habit and there is no evidence that it was practised in the Middle Ages among the military leadership.

Rosenthal observes that "hashish was clearly assumed to have its true home among Sufis and scholars."¹² Addiction among the literati was so common that nearly every Moslem poet between the thirteenth and the sixteenth centuries wrote verses about hashish.

As in contemporary America, *cannabis* had its hard core of users and advocates among a large body of intellectuals who were largely divorced from the power and responsibilities of society, who renounced wealth at least verbally, and who were mystics in search of some vaguely defined spiritual experience of unity with the universe.

MEDICAL ASPECTS OF CANNABIS USE

It was only in 1965 that the major active ingredient of *cannabis*—Delta-9-THC—was isolated in pure form and its chemical structure determined. Since THC content varies widely, depending on the

¹⁰ Franz Rosenthal, *The Herb: Hashish versus Medieval Muslim Society*, E. J. Brill, Leiden, 1971, p. 55.

¹¹ Franz Rosenthal, *op. cit.*, p. 82.

¹² Franz Rosenthal, *op. cit.*, pp. 142-143.

type of plant, the part of the plant used and the method of consumption, medical reports prior to 1965 were widely conflicting and often seemed self-contradictory. The best grade of resin is obtained from the flowering tops of fresh, uncut plants of *Cannabis sativa*, but there is, and for centuries has been, a great variety of different types of bhang and hashish throughout the Middle East. Generally speaking, the potency of the *cannabis* resins eaten, drunk or smoked in the Islamic countries of Asia and Africa is considerably higher than that of the ordinary marihuana cigarettes smoked in the United States and Western Europe.¹³ Toxic effects vary widely. For example, marihuana smokers in the West do not normally experience anything comparable to the violently hallucinatory experiences described by Dr Moreau or Theophile Gautier when they absorbed hashish extract with their dinner at the sessions of the notorious Club des Hachischins in Paris in the eighteen-forties. "An overturned glass echoed through me like thunder," Gautier wrote for *La Revue des deux Mondes*. "My voice appeared so powerful that I dared not speak for fear of bursting like a bomb."¹⁴

In addition to being consumed in a considerably more potent form, the hashish of the Middle East was taken over a much longer period than it was in the West. The difference is roughly between seven centuries and perhaps forty years of widespread use. *This is of cardinal importance if, as appears probable, cannabis has a cumulative destructive effect on man's genetic structure from generation to generation.*

Determining the extent of past and present addiction is difficult. Writing in 1836, Lane found that hashish was often available at Cairo's thousand coffee shops, was commonly used by "the lower orders," by "vast numbers of fakeers" and by several eminent literary men and theologians.¹⁵ Moreau observed in 1843 that hashish was "one of the determining causes of insanity among the Orientals."¹⁶

In Morocco, it has been estimated that about a third of the adult male population uses *cannabis*. A variety of studies confirm heavy addiction elsewhere in North Africa. "Progressive degeneration" of all the faculties, resulting in inability to work, unemployment and

¹³ This does not mean or imply that marihuana use, even in the comparatively dilute form prevalent in the West, is harmless or even only mildly deleterious.

¹⁴ For a full description, see Jacques-Joseph Moreau, *Hashish and Mental Illness*, 1845, Raven Press, New York, 1973, pp. 11-14. Alexandre Dumas and Charles Baudelaire were among the iconoclastic literary men who experimented with hashish at meetings of the club.

¹⁵ Edward William Lane, *The Manners and Customs of the Modern Egyptians*, 1836, Everyman, London, undated, pp. 340-341.

¹⁶ Jacques-Joseph Moreau, *op. cit.*, p. xix.

disruption of the family, together with “precocious senescence which occurs sometimes in the forties” was reported in 1957.¹⁷

Sixteen years ago, Dr M. I. Soueif, Chairman of the Department of Psychology and Philosophy at Cairo University, was requested to study *cannabis* addiction in Egypt by President Nasser. He finds that hashish usage is prevalent enough to constitute “a big sort of catastrophe” and to be a main cause of Egyptian “lethargy” and low levels of drive and ambition. Over 78 per cent of users were unable to drop the habit. Soueif added: “Those with a higher level of education—and/or intelligence—show the largest amount of deterioration, illiterates almost no deterioration, and semi-literates in between.”¹⁸

According to this view, heavy *cannabis* addiction is a means of social decapitation.¹⁹ It destroys the ability of the best minds to function, but leaves the mediocre and subnormal comparatively unimpaired.

Nobel laureate Dr Julius Axelrod testified that THC, the main toxic component of *cannabis*, will “accumulate in gonads, the brain and other tissues where there are large concentrations of fat.”²⁰

In an important analysis of chromosome breakage among 49 marihuana users and a control group of 20 non-users, Dr Morton A. Stenchever, Chairman of the Department of Gynaecology and Obstetrics at the University of Utah, and two associates found that marihuana smokers averaged about three times as many chromosome breaks as those who avoided it. That this was due to *cannabis* and not some other drug was evident from the fact that there was no significant difference in the number of chromosome breaks between marihuana-only users and multiple drug users.²¹

Dr Stenchever pointed out that chromosome breakage is

¹⁷ Gabrile G. Nahas, *op. cit.*, p. 23.

¹⁸ Testimony of Dr M. I. Soueif, Senate Internal Security Subcommittee, *Marihuana-Hashish Epidemic and its Impact on United States Security*, Hearings, Government Printing Office, Washington, 1974, pp. 177-182. Cited hereafter as *Marihuana-Hashish Epidemic*.

¹⁹ This view was confirmed by Dr Harvey Powelson, M.D., who had previously stated that marihuana was harmless and should be legalized. Dr Powelson reported on the basis of examining over a thousand patients (“Marijuana: More Dangerous Than You Know,” *Reader’s Digest*, December 1974, pp. 95-99) that chronic use may cause, not only impotence, but “seemingly permanent loss of mental ability.” A mathematician doing graduate work, after marihuana use, “told me that he could no longer handle mathematics at his prior level. He simply couldn’t follow the arguments any more. Today, three-and-a-half years later, he still cannot.”

²⁰ *Marihuana-Hashish Epidemic, op. cit.*, p. 145.

²¹ Morton A. Stenchever, M.D., Terry J. Kunysz and Marjorie A. Allen, “Chromosome Breakage in Users of Marihuana,” *American Journal of Obstetrics and Gynecology*, 1st January 1974, reprinted in *Marihuana-Hashish Epidemic, op. cit.*, pp. 349-356.

“associated with a higher incidence of malformation in foetuses.”²² In his article, he commented on the fact that previous studies had blamed abnormally high incidents of live-births and still-births with major congenital defects on LSD, but that, since all the LSD users in the studies had previously taken or were still taking marihuana, the *cannabis* weed might well be the real culprit.

“Should gonadal cells be involved [in the excessive number of chromosome breaks] the possibility of teratogenesis cannot be overlooked. Should the individual be pregnant at the time of use, a direct effect on the fetus may occur.”²³ (Teratogenesis means the production of monsters. What Stenchever is saying is that *cannabis*-caused chromosome breakage may produce children who are genetically malformed or brain-damaged.)

If this hypothesis should prove to be correct, the very strong possibility would arise that populations which have habitually indulged in hashish and marihuana for centuries may have suffered serious and ineradicable brain damage and that this damage may become cumulative with each generation for as long as the addiction continues.

HASHISH AND THE ARAB MIND

This would do much to explain the irrational modes of thought of the political leadership and intelligentsia of the Arab World and the extreme volatility and paroxysmal emotionality of the Arab masses.

It would also help explain the fact that the Christian and Jewish minorities in Moslem countries almost invariably have higher status, do intellectually more demanding work and are promoted more rapidly than the Moslem masses, except in those cases where the state favors the Mohammedans and suppresses the religious minorities. Neither the Christians nor the Jews in Arab countries indulge in *hashish* as a general rule. This applies, not merely to Europeanized Christians and Jews, but to such ancient Christian communities as those of Lebanon.²⁴ The main reason for their avoidance of the drug and Moslem indulgence in it is that the pleasure-repressive religion of Islam creates a craving for substitute forms of release.

The possibility that populations which have indulged in *cannabis* over the centuries have suffered cumulative genetic damage to their brains and nervous systems may raise an enormously difficult long-range problem for the West and for the Soviet system as well. The presence of cheap oil in vast quantities in Arab countries has

²² *Marihuana-Hashish Epidemic, op. cit.*, p. 89.

²³ *Marihuana-Hashish Epidemic, op. cit.*, p. 355.

²⁴ “The Christians of Lebanon, who over the centuries have adopted the language and many of the other cultural and culinary traits of their Moslem neighbors, have to this day refrained from using *cannabis* preparations.” Gabriele G. Nahas, *op. cit.*, p. 19.

caused a shift in economic and financial power to that area which, in terms of speed and magnitude, is historically unprecedented. If the peoples who now wield this power are not susceptible to rational processes of thought and cannot be relied upon to pursue rational courses of conduct, the prospects for international peace and for world order and harmony become dim in the extreme.²⁵

Even if the effect should prove not to be cumulative, there is “a growing body of evidence that marihuana inflicts irreversible damage on the brain, including actual brain atrophy, when used in a chronic manner for several years.”²⁶

Some of the psychological consequences include “pathological forms of thinking resembling paranoia, and ‘a massive and chronic passivity’ and lack of motivation—the so-called ‘amotivational syndrome.’”²⁷ This takes the form of lethargy, a zombie-like appearance, impairment of ability to remember, concentrate and discriminate. Several experts suggested “that the total loss of their own will would make a large population of *cannabis* users a serious political danger because it makes them susceptible to manipulation by extremists.”²⁸

When one contemplates Arab actions in the protracted conflict in the area, the bystander notes the total lack of any moral standards of conduct on the part of Arab and Palestinian terrorists. Their actions have included the murder of American diplomatic officials who were in no way concerned with the conflict, the assassination of Jewish athletes, the indiscriminate massacre of men, women and children at an airport, the killing of Israeli schoolchildren, and so on.

That these outrages are not merely the work of a few morally depraved fanatics is evident from the popular support they receive in Arab lands and from the fact that the terrorists responsible are hailed as heroes. The P.L.O., which organized many of these crimes, apparently speaks for the great majority of Palestinian Arabs.

When Israel conducted retaliatory raids into Lebanon, in which innocent people were killed, Israeli intellectuals have denounced the actions. However, one will search in vain for any evidence that Arab intellectuals condemn the moral enormities of their fanatical terrorist bands. The intellectuals follow the mob in these matters. Whether their problem is moral cowardice or that they float between

²⁵ A mitigating factor is that *cannabis* addiction lowers testosterone levels and male hormone counts and raises foetal death rates. The fact that heavy users tend toward sterility and, when not sterile, may produce thalidomide-type progeny who cannot reproduce, somewhat alleviates the genetic load, but does not solve the problem. See testimony of Dr Robert Kolodny, Professor Cecile Leuchtenberger and Dr W. D. M. Paton in *Marihuana-Hashish Epidemic, op. cit.*, pp. 117-126, 126-142 and 147-154.

²⁶ *Marihuana-Hashish Epidemic, op. cit.*, pp. ix-x.

²⁷ *Marihuana-Hashish Epidemic, op. cit.*, p. xi.

²⁸ *Idem.*

paranoid hatred and spineless lethargy like other groups whose minds have been touched by *cannabis* is as yet an open question.

Some observers have connected hashish addiction with the poor physique, low efficiency and lack of drive of a large part of the Arab working class. Testing Egyptian addicts, Dr Soueif found that they were slow in the test performance of "very simple motor tasks," that they did poorly in hand-eye co-ordination, immediate memory recall and such reintegration of rote memory as in Wechsler's Digit Span Backwards.²⁹

Military men who observed the Egyptian and Syrian armies in action in the Six Day War found that the inertia of the soldiers, as far as any sustained effort was concerned, was a major stumbling block to effective combat. In prison camps, a European observer noted that the Egyptian prisoners of war, officers as well as enlisted men, would simply wait passively to be fed, exercised and ordered to bed. European and American prisoners of war, by contrast, immediately organise group activities, recreate a chain of command, and maintain morale by collective action.³⁰

Nahas believes that hashish addiction has played a major rôle in reducing the Arab lands to the barren stagnation and ubiquitous and oppressive mass poverty that has only been partially alleviated by the oil bonanza. He writes:³¹

Six hundred years before Columbus landed in the Caribbean, at a time when North America was covered by forests and plains and populated by wild animals and a few thousand Indians the Arab world was one of the centers of civilization. In fabulous cities, such as Persepolis, Baghdad and Damascus, an industrious population of traders and craftsmen were thriving. They built elegant mosques and palaces, and financed famous universities where the best scientists and scholars of the time could be found. Their shrewd and effective leaders swept through North Africa into the South of Europe, to be stopped finally in Poitiers by the French. The decline of this brilliant Moslem civilization cannot be attributed to a single cause but to many of the interacting factors which tend to erode man's creative energy and blunt the full exercise of his power. Among these, abuse of *Cannabis*, the deceptive weed, with its promise of instant heaven on earth, cannot be excluded. This possibility might be one of the

²⁹ *Marihuana-Hashish Epidemic, op. cit.*, p. 179.

³⁰ The fact that hashish primarily induces passivity makes one suspect Marco Polo's story about the hashish-fed assassins in the mountain fortress of Alamut. The *Oxford English Dictionary*, the ultimate authority on the origin of English words, repeats the story and derives the word *assassin* from hashish-eater. Dr Nahas suggests, however, that *assassin* may derive from *Hassan*, the Old Man of the Mountain and the master of the bands of political killers.

³¹ *Gabrile G. Nahas, op. cit.*, p. 20.

reasons why concerned physicians and responsible leaders from Arab countries have fought, during the past 50 years, to eradicate the use of hashish from a land once known as “the fertile crescent,” which is now stagnant and destitute. It has been until now the ever-losing battle of a few courageous men attempting to turn an overwhelming tide.

We agree with Dr Nahas that *cannabis* may be the chief culprit in causing the degeneration of Islamic civilization and culture outside of Spain, following the Mongol invasion. It would do much to explain the disappearance of those Arabic-speaking philosophers, scientists and mathematicians who provided much of the mental light of the Mediterranean world during the first six or seven centuries of Islam. It also helps explain the political decay of the area and the transformation of powerful armies and fleets that once terrorized Christendom into the corrupt, impotent and largely ornamental military establishments that helped give the Ottoman Empire the sobriquet of “the sick man of Europe.”

The relationship of drugs to history is a vast and unexplored domain. Is it accidental that the regions and peoples which have historically remained comparatively immune from *cannabis*, *opium* and coca addiction—Europe, Russia, Japan and the overseas areas of European and Japanese settlement—have advanced on all fronts—culturally, politically, economically and militarily—to become the dominant and dynamic forces in the modern world? By contrast, the areas of prolonged or endemic addiction—the Middle East, India-Pakistan and most of Latin America—have tended to become regions and peoples of decay or retrogression. China, upon which opium was inflicted by the British in the 1840s, is an in-between nation whose future contribution to the world is an enigma.

Hysteria, Psychopathy and the Magic Word

By J. C. CAROTHERS

It has been a theme of the present writer that most of the differences of thinking and behaviour in non-literate as compared with literate societies are the outcome in the former of "magical" modes of thought whereby the word and verbal thought in general are conceived as having existence in their own right, with powers and vulnerabilities of the same order as the events or actions they connote. They are seen in other words as being "behavioural" in the same sense as any other form of action. Thus "evil willing" is the most fearful type of "behaviour" known in these societies; while the strength of the Mau Mau oaths in Kenya¹ depended largely on the belief that recantation would result in instant death from the "power" of the oaths alone.

This attitude to verbal thought was discussed at length, both as to its origins and outcomes, in an earlier article.² The argument can briefly be summarized as follows.

Non-literate agricultural societies live in a world where sounds, rather than sights, are of paramount importance. Sounds are of their nature dynamic things or are indicators of dynamic things—of movements, events, activities for which man, when largely unprotected from the hazards of life in the bush, must be ever on the alert. Whereas in the urban West people develop and must develop an ability for ignoring sounds, in this rural setting they are not to be ignored for they are usually of direct significance for the hearer. Particularly is this true of the human voice, for the spoken word when heard is usually directed at the hearer, and contains personal and emotional elements which are always recognizable. The world of sound, in other words, is a relatively subjective, personal and emotional world.

When words are written they move, of course, into the visual world. Like most of the latter's elements they then become static things and lose, as such, much of the dynamism which is so characteristic of the auditory world in general and of the spoken word in particular, and they lose much of the personal element in that they are no longer often directed at oneself. They lose the emotional overtones and emphases which are such an integral part of vocal

¹ J. C. Carothers, "The Psychology of Mau Mau," Government White Paper, Nairobi, 1954.

² J. C. Carothers, "Culture, Psychiatry and the Written Word," *Psychiatry*, Vol. 22, No. 4, 1959, pp. 307-320.