

ABSTRACT

Cannabis sativa has been used throughout southern and eastern Africa for centuries, yet we know little about its origin, diffusion, and patterns of use. This paper deals with the likely migratory routes and diffusion patterns of cannabis in Africa. It traces the historic presence of the herb among various African peoples, recording their patterns of use and the paraphernalia associated with cannabis smoking. Terminologically, we are able to construct three geographical complexes in Africa: a southern area where cannabis is referred to as dagga, an east-central area where we find variations of the term bangi, and a western area where variations on diamba are used. Cannabis was not present in West Africa prior to World War II. The methods of smoking the herb among the African peoples of southern and east-central Africa have been changing. Throughout this region the old water-pipe has almost completely disappeared, and today the young people are employing either various forms of the chilam pipe, which is bought from Indians, or the cigarette.

This paper is being written while I am involved in a full-time research project, funded by the Center for Studies of Narcotics and Drug Abuse, National Institute of Mental Health. While there are distinct and immediate advantages to being in the field while writing, the library and research facilities are sometimes not completely satisfactory.

A word of very sincere appreciation is due the staff of the Killie Campbell Africana Library in Durban, South Africa, and in particular to Monica Sauer and Jeanette Langner who were always more than ready to assist in searching for items, obtaining photocopies, or tapping the resources of inter-library loan facilities.

INTRODUCTION

Historical

The herb we are discussing probably originated in the semi-desert regions south and east of the Caspian Sea and gradually spread to the Himalayas and throughout central Asia. While it is known to have been used by man as early as 6000 years ago, it may in fact constitute one of the earliest plants cultivated for material use rather than food. The herb most likely supplied man with fiber from its stem for many centuries before the oil from its stem and the medicinal value of its resin were discovered.

The early uses and diffusion of hemp in Europe, Asia, and the Middle East and its botany have been extensively described in the literature (Emboden 1972; Schultes 1970; Rosenthal 1971; Grinspoon 1969).

In Egypt cannabis has been grown for almost a thousand years. While the domesticated variety was used for the production of rope, the wild variety (transplanted to gardens) was specifically recommended for use as a drug. "In certain parts of the Delta of the Nile, the major crop sown was hashish, and the daily consumption of hashish in Cairo was quite considerable" (Rosenthal 1971: 132). Despite the fact that the use of hashish was adjudged a crime in Muslim society and was thus punishable by religious law and judicial authorities, it was very commonly used. Part of the geographical spread of cannabis is due to its association with Muslim migrant communities.

We also know that it spread down the east of Africa with Arab traders. The terms Bangalah and Bhang were names for Bengal and the word bhang, used for the herb, could thus have spread into east Africa centuries ago to refer to its Indian origin. The spread of its use was compounded with more recent Arab trading from Saudi Arabia, and it was almost certainly used in the southern part of the continent in pre-Portuguese times, i.e. before A.D. 1500.

Likely Migratory Route

One of the potentially most hazardous pastimes is to postulate "origins" and "migration routes" for plants which are well-nigh universally distributed. In the case of cannabis, we are entering such a problem area. Few, if any, archaeological site reports mention pollen counts or seed distribution; neither have I come across descriptions of early occupied sites in southern Africa in which the pipe is mentioned. For later material in this regard Walton (1953) has summarized the evidence. We are thus forced to the use of analogy and assumption.

Plant distribution can be brought about by winds, currents, and similar natural forces. It can also follow animal activity and migration by becoming attached to their feet or hooves, or by being eaten by birds (Darwin 1900; Polunin 1964).

We know that the herb was present in Persia and India, and from there reached Arab

settlements in the northern and northeastern borders of the African continent. The fairly early trade contacts with Zanzibar should thus be accepted as a likely migratory route. The literature contains a number of suggestions on the spread of cannabis into southern Africa:

L Watt (1961:9) has suggested that "the plant may have been introduced by the early travellers circumventing the Cape from the east." Almost all our historical documentation and linguistic evidence, however, suggest a date long before this.

2. Theodore James (1970 : 575), basing his argument on a single case of terminological agreement [namely Hindi and Shangaan (Thonga)] states that: "the plant was first carried to the coast of Mozambique ... by the Portuguese militant traders returning from India." This sets the date even later, and certainly does not recognize documents regarding early use.

3. Morley and Bensusan (1971 : 409) point out that the plant is not indigenous to southern Africa: "It appears most likely that it was brought by Arab traders to the Mozambique coast from India. From there it was carried southwards by the migrating Hottentots and Bantu." In general, this position is supported by Goodwin (1939:456). While recognizing an earlier date of introduction of cannabis, this hypothesis is rather vague as to "Hottentots and Bantu."

4. Walton (1953:85) refers to his own survey of archaeological reports which mention pipes found in early Bantu settlements, and also to Dos Santos' description of cannabis cultivation by the Eastern Shona in the sixteenth century. He then suggests that cannabis "was introduced into southern Africa by the very first waves of Bantu invaders from the north." The use of the herb would then have spread from Bantu to Hottentot and Bushmen. Walton's suggestion comes closest to the way in which the material will be reconstructed here.

The early contact between Indonesia and Madagascar may suggest the latter as a stepping stone. Copland (1822:327) points out that a "plant resembling hemp" was used, but! would doubt that this could be cannabis for this ahetsmanga, as it was called, had a green pod with about twelve seeds. Subsequent authors report the presence of hemp for its fiber (Shaw 1885) or for smoking (Ellis 1838; Sibree 1870 and 1880). Cannabis here is identified as rongona or rongony. Its use was illegal by this time in the Portuguese colonies in Africa. I would discount a migratory route via Madagascar on linguistic evidence, and because the Arab link to the African mainland is much better documented. Berthold Laufer (1930) points out that hemp was smoked in Madagascar by the middle of the seventeenth century. He suggests that the term ahetsmanga is, in fact, based on ahets (herbs) and mangha derived from bhang. One possibility

for the introduction of cannabis into Africa is the trade route through Ethiopia. It is well accepted that the Amhara people very early on came from southern Arabia (Simoons 1970). There was also a well-established trade route from Ethiopia to the Great Lakes — a route employed by the Turks (Greenway 1944-1945).

The most likely migratory route of the herb, however, is down the east coast of Africa. In his discussion of the introduction of tobacco into Africa, Laufer states that "hemp was introduced into East Africa from India through the medium of the Arabs, as has well been demonstrated by Count de Ficalho ..." (1930 :13), but does not amplify. Although I have been unable to locate a copy of the source, I would agree with this statement regarding the origin and distribution of hemp. Trade links between Arabia (and possibly Turkey, India, and Persia) and the East African coast, existed during the first centuries A.D. According to classical sources an Arabian settlement existed at Rhapta, and gradually spread southwards, with permanent Muslim settlements on Zanzibar and Pemba, and at Kilwa no later than the twelfth century.

This is also the period during which the use of hemp spread westward to Egypt (Rosenthal 1971) and, according to our suggestion here, down the East African coast. During this period Bantu-speaking peoples were resident on the east coast and groups were migrating southward. The Arab traders had also expanded the gold trade with Sofala (Chittick 1965) and permanent Arab settlements on the African coast were being established. Much of the trade with the interior was by way of the rivers, but these frequently rendered travel impossible during the rainy season, thus necessitating extended periods in the interior. It is quite conceivable, as McMartin has suggested, that "this led to the eventual establishment of inland settlements by the Arabs where they would spend one or two years away from the coast" (1970: 16). When the Portuguese made their way up the Zambezi in 1531 to establish a trading post, a small Arab community already existed at Sena, almost 100 miles from the coast. Livingstone (1857;1865) during his early explorations, repeatedly commented on the presence of Arabs and Arab cultural influences.

Even without the actual Arab presence in the interior, trading did exist. As far back as the second and third centuries A.D. "imports" were reaching the interior via the Zambezi valley, and Iron Age Africans were cultivating cereals and keeping cattle (Fagan 1969). We also know from early pottery traditions that the people in central Africa were soon producing pipes (Fagan 1963) and by the time that hemp was introduced would have been able to construct crude hubble-bubble pipes. Once it had been introduced into central Africa the avenues existed for its spread further west — either by an extensive series of trade routes into the Congo basin (Vansina 1962) or, more likely, by Swahili-speaking traders coming to the Great Lake region.

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Further to the south we have documentation that around 1835 "the Matabele had considerable traffic with the Amasili/Masarwa off the edge of the Kalahari, exchanging iron, dagga [sic], spears, hoes and knives for ostrich-eggshell beads, ivory, feathers, horns and skins" (Sutherland-Harris 1970:253-254; Dornan 1925:122-123). The same kind of trade into the Kalahari region from the peoples in South West Africa also existed, as did various trade links among the local populations who cultivated and used cannabis (see others mentioned below; Vedder 1938). The migratory route proposed above has been outlined in general terms in Map 1.



Map 1. Sketchmap representing the distribution of *Cannabis sativa*

Linguistic evidence for this spread must at this stage be based simply on the terms by which hemp is known. The Thonga who use cannabis live in the general vicinity of the Zambezi River mouth. In a complicated saliva contest (see later for a similar game among the Zulu) they distinguish between matjafula (ordinary white saliva) and ntjutju (black saliva produced by hemp). The Thonga (Junod 1962) refer to hemp as mbanje, and the Rhodesian Shona use mbanji, while the Hindu term is bangi or, bhang. The Venda who live just south of the Limpopo Divide, southwest of the Thonga, refer to hemp as mbanzhe. Among the Sotho it may be called matokwane, lebake, or patse. The Swazi-Zulu complex refers to it as ntsangu, while the

Hottentot use the term daXab, which refers also to tobacco, and so gave rise to the common reference to dagga. The Lamba, in the current Zambia, speak of uluwangula (Doke 1931) while the people around the Great Lakes, and immediately to the south of Lake Victoria, refer to it as bhangi (Kollmann 1899). When the famous explorer Speke made his way from the coast to the Great Lakes he also found Arab communities and the use of cannabis. Among the Swahili around the coast the use of bhangi was common as it still is.

Crossing into the general area now known as Zaire, and also northern Angola, we find the term ramba or chamba as the standard referent. Map 2 outlines this linguistic material.

Looking at the historical and linguistic evidence, we have two possible explanations regarding the introduction of cannabis into southern Africa:

1. If we accept dagga, or the traditional names from which it was derived, as the oldest and original referent, we would be on safe ground, provided we adhere only to that material. Dagga is the term used furthest south. This would force us to postulate that the Hottentot herders were grazing their stock along the east coast during the twelfth and thirteenth centuries, and were first contacted by the Arabs. Here again, we could assume: (a) that this contact occurred prior to the spread of the word bhang from India and that the water-pipe (of Persian origin) came by way of the early Arab settlers. Hemp was introduced simply as a form of duXan or tobacco (vide the discussion below regarding the etymology of the term dagga). As the herders migrated southward, and were replaced on the coast by Bantu speakers, the latter took over the same practice. (b) Since this would now be after the twelfth or thirteenth centuries, the Arabs would have already been using the terms bhang or bhangi which came with the new spread of the herb from India, the Bantu then took over the re-ferent bhangi and its derivatives which are today recorded. While this hypothesis might explain the geographical distribution of the terminology, there is no evidence for Hottentot-Arab contacts and little evidence for the latter smoking anything before tobacco was introduced to them (Rosenthal 1970).

2. The more likely hypothesis is that Bantu-speaking negroids along the east coast, from Lamu to the Zambezi, had contact with Arabs who smoked bhangi, a practice which they had brought from India. As the Bantu adopted the custom of smoking cannabis, they also adopted the water-pipe and referents which underwent linguistic adaptation. The Sotho terms are linguistically the most distant and also the most distant geographically — measured in terms of degrees of contact with the original people who introduced the practice and the term. This hypothesis suggests that when the Hottentot herders were introduced to smoking hemp, they saw it in much the same way as they looked on other kinds of tobacco (including *Leonotis leonurus*) which were used for snuff or perhaps smoked. Thus they called it daXab, but qualified

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that it actually was "green" tobacco.



Map 2. Sketchmap showing terms by which *Cannabis sativa* is known

I would suggest that the same factors influenced the westward spread of cannabis. It was carried by traders, both Swahili and Arab, and traded from the east coast to the Great Lake region. Due to local frames of reference or cultural equivalents among the Luba or other people who first accepted the practice, we find the reference to riamba. Further research is underway regarding the origin and meanings of the latter term.

As far as can be ascertained, cannabis has been growing in southern Africa for the past four or five centuries. While it was originally an imported plant, most likely carried southward by early migrants, it has long since become naturalized, and grows with much vigor in the warmer regions.

It should be recognized that the botanical specimens present in this region today have been influenced by cross-breeding with plants grown from seed imported from Europe and also from South America.¹

It should also be recognized that in southern Africa there are at least two cultural traditions which blended folk knowledge and uses of cannabis. At the beginning of the seventeenth century in the southern part of the continent, there were indigenous cultural traditions of use among the "Bushmen," "Hottentot" and Bantu-speaking peoples of negroid extraction. Into this setting came European settlers who had had contact with the East Indies and in time, introduced their own folk beliefs concerning the use of cannabis. Most of these beliefs seem to have been medicinal. In the process, due to errors in identifying plant species, they included a number of other plants in the general folk nomenclature. While the term "dagga" (spelled in a number of ways) was accepted to refer to Cannabis saliva L., we find numerous cases where the term "dagga" also refers to various species of Leonotis. In almost every case, however, it is used with a qualifier, such as Wilde dagga, Klip dagga, Rooi dagga (wild dagga, stone dagga, red dagga), and so forth. These various plants formed an integral part of the folk medicines of both African indigenes and white Boer settlers.

Etymology of the Term "Dagga"

The earliest use of this referent of which I am aware occurs in the diary of Jan van Riebeeck, the first governor of the new Dutch Settlement at the Cape of Good Hope. The date was 1658, and it was spelled "daccha." It is almost certain that in this and subsequent references we are not dealing with Cannabis sativa but with Leonotis leonurus. Van Riebeeck describes daccha as "een droogh cruyt dat de Hottentoes eeten ende droncken van worden" (a dry powder which the Hottentots eat and which makes them drunk). Watt and Breyer-Brandwijk (1932), discussing the

medicinal and poisonous plants of southern Africa, point out that *Leonotis leonurus* R. Br., also referred to as Rooi dagga, Wilde dagga, or Klip dagga, was in early times smoked by the Hottentots instead of tobacco. They also quote early authors to the effect that white colonists employed the plant and that "the preparation produces narcotic effects if used incautiously" (Ibid.: 156) and that "Laidler records that in olden times the Namas formed the powdered leaf into cakes which were chewed evidently for the intoxicating effect" (Ibid.:157). Many of the same properties are ascribed to *Leonotis leonurus* R. Br., also referred to as Knoppies dagga or Klipdagga.

While it is impossible to confuse the adult plant of *Cannabis sativa* and adult specimens of the *Leonotis* groups with their bright red flowers, it is likely that the common use and related effects of these two plants lead to the common term. This classificatory error also underlies suggestions that cannabis products were eaten or drunk. The *Leonotis* leaves were smoked, usually after being mixed with tobacco.

One of the most complete linguistic analyses of the term "dagga" has been made by Nienaber (1963) who suggests two possible origins for this term: following Lichtenstein (1928) it is possible that the Dutch term *tabak* (tobacco), which frequently appears as *twak*, was corrupted to *twaga*, later *toaga*, and finally *dagga*. This seems an unlikely origin. A more plausible theory is that the Hottentot term *daXa-b* or *baXa-b*, which among other things refers to tobacco, is the root noun. When referring specifically to *dagga* one finds the qualifier *!am* (green) being added to the root, and the result is *!amaXa-b* namely, "green tobacco" or *dagga*.

Lichtenstein (1928) and Nienaber (1963) doubt that *dagga* is an original Hottentot word. Meinhof suggested that *dagga* is a derivative of the Arabic word *duXan* or "tobacco" (cited in Nienaber 1963:243), which came in with the early Hottentot migrants. We should immediately point out that no other language group in South Africa used this term.

Early European observers in South Africa had problems in phonetically recording the terms they heard among indigenous peoples. In time a variety of spellings for this Hottentot word appeared. Thus we find *daccha* (1658), *dacha* (1660), *dackae* (1663), *dagha* (1686), *daggha* (1695), *dagga* (1708), *tagga* (1725), *dacka* (1775) and *daga* (1779) (vide Nienaber 1963 and Raven-Hart 1971). It should be repeated that not all these writers in fact referred to *Cannabis sativa*, or to the smoking of the herb.

AN ETHNOGRAPHY OF CANNABIS

An Ethnohistorical Outline

As far as we know today the first people to occupy the southern part of Africa were hunters and gatherers and perhaps also herders. These groups who were occupying the Cape when the Portuguese first rounded the southern tip of Africa are known as the "Bushmen" and "Hottentot," terms that have created a great deal of confusion.

There was a tendency to lump together all yellow-skinned, hunting and gathering peoples whose language was characterized by "clicks." These peoples were called "Bushmen" after the early reference of Bosjesmans assigned by the Dutch settlers to the little people who would appear as if from nowhere from behind a shrub or bush. They were differentiated from the taller, yellow-skinned people, who also employed "clicks" in their language, but were cattle and sheep herders and were called "Hottentot." The literature in time contained descriptions of yellow-skinned people who employed various "clicks" in their language, and could be differentiated on the following bases: culturally, by the fact of herding versus hunting and gathering; linguistically, or physically, by stature and a few other minor traits.

Among themselves these early settlers had differentiated between the "Khoikoin" or "men of men" as the herders referred to themselves, and the "San" as they referred to all yellow-skinned hunters and gatherers. It has become accepted — partly due to a derogatory note attached to the term "Hottentot" — to refer to all these peoples as the Khoisan. There is a growing insistence that physical descriptions or names be based on physical criteria only, while linguistic classification should be based on linguistic criteria.²

In addition to the Khoisan groups there were also a few groups of negro hunters who were marked by an extremely simple material culture. Some of these spoke a Khoikhoi language (Nama) and they are together referred to as the "Dama," "Damara" or "Bergdama."

The first people to be contacted by the Portuguese who rounded the Cape in 1487 were yellow-skinned herders. They were not settled villagers but seemed to migrate with available grazing and water supplies and built temporary camps. According to Jan van Riebeeck, the first Dutch Commander at the Cape, they met small groups of Khoikhoi who subsisted on hunting, fishing and collecting along the seashore. These people became known as the Strandloopers (literally, "Beach Walkers").

From the north at about this time came a number of negroid groups who were village dwellers and iron workers. We know that Iron Age people crossed the Zambezi River somewhere

between A.D. 100 and A.D. 300 (Inskeep 1969), but most of these groups seem to have remained in the central plateau region. It is believed that the ancestors of the present Bantu-speaking negroids migrated into this region after the sixth century and by A.D. 1000 were widely spread throughout the present Rhodesia, Transvaal and Orange Free State. This information is based on well-defined pottery traditions, mining undertakings and carbon-14 dates of remains found in early Iron Age settlements. Two important facts are known, namely, that by 1552 "Kaffirs" occupied the coastal plains on the east coast (according to a diary by the survivors from the wreck of the Sao Joao) and "a ship from Sofala was expected annually at Lourenço Marques to buy ivory" (Wilson 1969 : 78). We find shortly after this that the Nguni peoples, comprised of the Zulu and Swazi in the north and the Xhosa, Tembu, Fingo and smaller groups in the south, occupied the region between the coastal plains and the foothills into the interior. The coast itself was sparsely populated. These mutually intelligible Nguni groups spread from the Lebombo mountains and Khosi Bay region in the north to the Sundays River in the south.

Quite extensive interaction accompanied by cultural, linguistic and genetic exchanges occurred between the local hunters and gatherers and the herders as well as between the latter and Iron Age negroid settlers. Since Nguni may have been in the foothills of the Drakenberg from as early as A.D. 1300 (Wilson 1959), this exchange and interchange was well advanced at the time of the first written record. This does not suggest that the Nguni people adopted the use of cannabis from the yellow-skinned herders when they settled in the south, but merely that a degree of interchange, especially regarding the methods of use, did occur. Cannabis may have been introduced to the herders by these latecomers.

Early Records of Use Among the Herders

It will be recalled that the first observers confused various preparations which were eaten or drunk (these were not cannabis), preparations which were smoked in various mixtures (which included cannabis), and products which were smelled and inhaled (which might have included cannabis but were usually restricted to roots such as the gannabossie, i.e., the Ganna shrub).

Six years after arriving at the Cape, Jan van Riebeeck reports on the "daccha" which the herders ate in the form of a dry powder. Dapper in 1668, touched on the same subject when he referred to the fact that the Khoikhoi were wealthy herders and did not practice agriculture at all except for a "zekeren krachtigen wortel, dien zy dacha noemen, en eeten om droncken te worden" ("certain potent root, which they call dacha, and which they eat to get drunk") (Dapper 1933:40). He also refers to the effects on persons who have eaten this root. It is almost certain that we are here dealing with *Leonotis leonurus*. Its leaves were also frequently smoked alone or mixed with tobacco. Dapper mentions particularly the Heusequas as being involved in cultivating the plant.

Writing two years later, John Ogilby states that "these Heusequas onely maintain themselves with planting (for the rest of the Hottentots neither sowe nor plant) of a powerful Root, which they call Dacha: sometimes eating it, otherwhiles mingling it with water to drink: either of which ways taken, causeth Ebriety" (1670:583).

Almost identical statements are found in Bogaert published in Amsterdam in 1711 (vide Raven-Hart 1971), and in Johan Schreyer published in Saalfeld in 1679 (Ibid.). The latter speaks of this dried herb which they chew and which then produces the same results already mentioned. Wilhelm Ten Rhyne, who was a physician of the Dutch East India Company in 1686 wrote A short account of the Cape of Good Hope and of the Hottentots who inhabit that region. He obviously did not have ideal rapport with his Khoikhoi informants, for he stated that one could not always get all the information one wanted from these people, "For in the first place the Hottentots lie, and, in the second, they are determined to keep their secret remedies to themselves. They cure colic quickly by a certain aromatic root. They employ also a certain species of *Datura*, as I think, called dacha. This they bray carefully, and after braying, make it into balls and eat it, as many Mahommedans do with Amsion or opium. It makes them monstrous drunk" (1933:153). Also Schrijver, writing in 1689, states that the Khoikhoi bartered for Dagha "which is used by them as the Indians use opium amphon" (1931:234). In a lengthy letter written in 1695, de Grevenbroek explains that the Khoikhoi "set very great store by the plant Daggha, as they call it, the roots of which they make into little cakes not exceeding in size the silver coin known in the vernacular as a rix dollar: and these they chew, as the Indians do opium and the Egyptians oetum. It puts them to sleep, but never maddens them" (1933:263).

In almost all cases thus far we may in fact be dealing with *Leonotis leonurus* and other shrubs and not with *Cannabis saliva*, though all references are to dagga. We know that this dagga was grown domestically, for Mentzel, writing in 1785, explains that white settlers who employed Khoikhoi paid them with "a few head of cattle, a little tobacco, dagga, some knives, glass beads..." (1944:85). Latrobe (1969), in fact, was so incensed at this use of dacha, "a species of wild hemp (*cicuta*)," that he proposed the first penal code against its use and distribution — a penalty fully as severe as that which exists today.

In addition to the use of dagga at this time, we also find reference to the use by the Khoikhoi and the San, of kanna, a root which was greatly valued as it was burned and the smoke inhaled (Kolb 1968).³ In addition, it seems that the leaves of ganna bush were "also dried and powdered, and used both for chewing and smoking. When mixed with dacha it was very intoxicating" (Stow 1905: 53): Lichtenstein (1928: 154) identifies it as *Salsola sphylla* and *Salicornia fruticosa* and as being used by indigenous peoples and white settlers. We are told that kanna, canna or ganna could be identified as "several species of *Salsola*" which were

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chewed in much the same way "as the natives of India use betel or areca" (Schapera and Farrington 1933: 264-265). It was thus another of a group of stimulants used by the Khoisan peoples.

While so many of the early writers used the term dagga without clearly identifying it, I would suggest that they might have been observing the use of *Cannabis sativa* along with other herbs and roots, including different species of *Leonotis* and *Salsola*. This is suggested by the trade routes and migration patterns and by documentation from other writers who were the contemporaries of our earlier observers. Thus Le Vaillant (1796:71) while speaking of the Gonaqua, a Khoikhoi group whom he visited, explains: "They smoke the leaves of a plant which they name dagha, and not daka, as some authors have written. This plant is not indigenous: It is the hemp of Europe."

In much the same way, John Barrow (1801 :18) stated that the Khoikhoi cultivated hemp, "not, however, for the purpose of being manufactured into cordage or cloth, but merely for the sake of the leaflets, flowers, and young seeds which are used by the slaves and Hottentots as a succedaneum for tobacco." An almost identical statement is found in Anderson's (1967:79) description of his travels into southwest Africa. The Damara whom he visited in the 1850's, cultivated hemp for the young "leaves and seeds." It seems that the Damara were the main dagga cultivators in the region. In addition to small gardens of melon, pumpkins and dagga, they also planted tobacco and in this respect "they far surpass the Ovaherero and the Namaqua" (Stow 1905:259). We are told that they "did a regular trade with the Ovambo tribes, from whom they got cows, goats, iron and copper in exchange for dagga, for dagga was at that time the Bergdama's money with which they could buy anything" (Vedder 1938 : 175). The author in the latter case identified dagga as a "kind of intoxicating hemp" (Ibid.: 53). This position is confirmed by Jenny (1966), referring to another early missionary, Hugo Hahn. William Burchell, speaking of a "mixed Hottentot" settlement he visited in 1811, also refers to the cultivation of "dakka" in a garden that was "irrigated by a trench which conducted water from a spring not far off" (1967, II:7). The practice of cultivating dagga seems to have been concentrated among the Nama (and the Nama-speaking negroid Bergdama) and the Hancumqua.

We are not too sure about the cultivation of dagga among the Khoikhoi. Van Riebeeck suggested that the Hancumquas were the actual cultivators while Stow (1905 : 243) also speaks of the Hancumquas and Chainouquas (sub-groups of the same tribe) as subsisting by the breeding of cattle and the "cultivation of the plant dagga." Schrijver also named the Ganu'mqua (note H equals G), Namkunqua and the Ganaqua as the people who cultivated the dagga and traded it to other groups, including the hunters or San.

Trade and Use by Hunters

While the Khoikhoi were herders and practiced a minimum of garden cultivation, the San were hunters and gatherers. Their hunting sites are distributed over most of southern Africa and the now famous "Bushmen Paintings" adorn the ledges and domes of countless caves and mountain shelters. From numerous early sources we learn of trading relations between the hunters and other groups in southern Africa and even suggestions that the hunters might have been the earliest smokers. The noted writer George Stow states that "the hunters were addicted to smoking, and used these pipes generations before they came in contact with the stronger races" (1905:53). In exchange for tobacco and dagga they supplied feathers, game, and other products collected in the hunt (Dornan 1925). While Dornan refers to dagga as *Leonotis leonurus* we now have sufficient reason to accept the evidence of Schapera who states that "as narcotics, the Bushmen use chiefly tobacco and dagga [*Cannabis sativa*]" (1960: 101).

The hunters used the water-pipe, one of the older forms of use, which may have diffused from Persia via the Arabic region.

The hunting and gathering San people did not settle down easily and did not take to being employed by the newly arrived white settlers. Describing a missionary garden in a Khoikhoi settlement, Burchell refers to "the common hemp" which is raised there and "given as presents to the Bushmen" (1967, 1:366). Gutsche quotes a number of cases in which white settlers gave dagga to Bushmen (1968) in an attempt to create friendly relations. In other cases "the whites who seldom use the dacha themselves [should] cultivate it for their servants. But it is, I believe, an inducement to retain the wild Bushmen in their service..." (Gutsche 1968: 46). This was also the practice further into the interior where farmers cultivated dagga to keep the herders and the hunters, in their service; the latter became sheep herders par excellence (Fritsch 1868).

The Kalahari hunters of recent times also used dagga (Tobias 1961) as do a number of hunting groups today.⁴ Among these groups are the Bugakwe people who live north of the Dkavango Swamps. They also use the same kind of composite water-pipe common in the past (Heinz 1972, personal communication): this form of smoking is described by Theal (1910).

The question will remain whether the smoking of dagga was introduced relatively late by the arrival of the negroid migrants or whether it had been present among hunters and herders prior to the arrival of the negroid cultivators. One thing can be accepted without doubt: smoking long preceded the arrival of whites in southern Africa. It is thus difficult to understand on what basis Raven-Hart states that the indigenous wild dagga was chewed, since "the idea of smoking anything came in with the Dutch" (1971: 507).

Later Arrivals: The Agriculturalists

The Bantu-speaking negroids spread their gardens and pastures over most of the eastern and northern parts of southern Africa. Documents which are readily available recount early meetings first on the eastern frontier and later further north and east.

As white settlers and explorers moved eastward they met the Xhosa, Fingo and other southern Nguni people, and both tobacco and dagga were valued (Alberti 1968) and smoking was practiced by men and women (as is still the case). Andrew Smith (1939:312) who gained a very thorough knowledge of the people, states that "Dakka has from time immemorial been known to the Caffers. They are very partial to smoaking it. Those that can procure both tobacco and dakka snuff the former and smoak the latter. They smoak it through water." The smoking of dagga among the Baralong and Bathlapin, both sub-groups of the Tswana, is also mentioned by Andrew Smith, and hemp smoking by the Bechuana, another Tswana group, is mentioned by Conder (1887). Baines (1964:213) gives a full description of the water-pipe and presents a drawing of an African smoking "dakka" (1864).

Related to neighboring Tswana we find the Sotho who occupy the present Lesotho. One of the early missionaries described and diagrammed the pipe they used for smoking. He states that "tobacco has long been in use among the natives, and must have come to them from the Portuguese of Mozambique but, in a song consecrated to the praise of this favorite plant, they confess that the use of dagga (a kind of hemp, of which the Arabs make Hagschisch), is much more ancient" (Casalis 1965:141). Much the same position was taken by Nienaber (1963) who states that the Hottentot smoked long before tobacco was introduced. We are told that there was a time when the Sotho did not know tobacco "but they used to smoke hemp" (Ellenberger and Macgregor 1912:9).

The Zulu occupy most of Natal, and, as Nguni, are related to the Xhosa in the south and the Swazi in the north. John Bird raises an interesting problem; he writes that "dakka, the dried leaf of the wild hemp, is indigenous to the country" (1888, I:306). Later in the same volume we read of "sangu which is only European hemp, and raised for smoking." This is a problem, because in most of the subsequent references and also in current usage, intsangu is synonymous with dagga which is used to refer to cannabis. It would seem that we are back to the mistaken identity of dagga as "wild hemp." (See also Gardiner 1836:106, who suggests that the Zulu made a snuff of dagga leaves.)

Writing even before Bird, the Reverend Grout who spent half his lifetime among the Zulu,

speaks of smoking the pipe in which the bowl is filled "with the leaves and seed of the insangu" (1970:110). This "filthy and baneful" practice, as the Reverend Tylor describes it, "has a narcotic even intoxicating effect, similar to that of Indian hemp" (1891:122-123). The latter author is reminiscent of Latrobe who almost a century earlier in the Cape, suggested that smokers of hemp should be denied church membership (Ibid.).

In a traditional Zulu community it was common for men to smoke intsangu, even daily, and it seems that the effects reported were as varied as the individual personalities. Some turned to extraordinary hilarity, others to moroseness. It was especially at times of war that men would smoke the herb and, as saliva collected in the mouth, it would be passed through "a hollow stem of tambootie grass and so made to trace a labyrinth (tshuma sogexe) on a smooth floor" (Samuelson n.d. : 81).⁵ The young warriors smoked dagga before an attack and were then capable of accomplishing almost any feat. Bryant states that "the hemp [intsangu, Cannabis sativa] the Zulus smoked was home grown in every kraal..." and the best quality leaves were terminologically differentiated from the poorer kind (1949 : 222-223). In all cases the traditional form of the pipe was used. The Zulu did not smoke tobacco as a rule but ground it into snuff. That is why they have only a single term for tobacco and snuff.

The Swazi also used the dagga pipe as well as the method by which a hole is made in the ground and the smoke sucked through a mouth-piece. The herb seems to have been associated here primarily with diviners who used a pipe. Following a puff of smoke each would fill his mouth with water to cool down the hot smoke (O'Neil 1921). It was also used as a stimulant by young warriors, as among the Zulu, and by the praise singer who must intone the praises of the king or some prominent person. "It is contended by natives that the drug stimulates the brain. If a man is faced with an extraordinary knotty problem he will smoke his shawulo [pipe] and concentrate on the problem and the solution will present itself to him without trouble" (Marwick 1940:80).

The water-pipe was found among all of these people. Slight variations obviously occurred as with the Venda, who, however, did not use dagga very extensively (Stayt 1931). An identical description for the pipe as it was used by the Matabele is given by Declé (1898).

The Neighbors to the North

Since it has been suggested that cannabis was introduced into Africa from the northeast, and not from the south, it would be fruitful to follow briefly the patterns of its distribution and use.

Dagga is a weed which can only grow well under cultivation in Rhodesia. The distribution of the plant in or through this ecosystem must thus have accompanied people. For normal growth it needs "a rich soil, fairly good rainfall and personal attention" (Editor 1958:500). In Mashonaland it is known as mbanji and is said to be a stimulus both sexually and in terms of increasing working efficiency. It is interesting to note how varied the effects or contradictory the information is from one author to the next.

Having arrived at the great falls which he named after Queen Victoria, David Livingstone observed cannabis smoking among the Makololo, a Sotho offshoot. It is of interest that they call it matokwane. He describes its use as follows:

We had ample opportunity for observing the effects of this matokwane smoking on our men. It makes them feel very strong in body, but it produces exactly the opposite effect upon the mind. Two of our finest young men became inveterate smokers, and partially idiotic. The performances of a group of matokwane smokers are somewhat grotesque; they are provided with a calabash of pure water, a split bamboo, five feet long, and the great pipe, which has a large calabash or kudu's horn chamber to contain the water, through which the smoke is drawn Narghille fashion, on its way to the mouth. Each smoker takes a few whiffs, the last being an extra long one, and hands the pipe to his neighbour. He seems to swallow the fumes; for, striving against the convulsive action of the muscles of chest and throat, he takes a mouthful of water from the calabash, waits a few seconds, and then pours water and smoke from his mouth down the groove of the bamboo. The smoke causes violent coughing in all, and in some a species of frenzy which passes away in a rapid stream of unmeaning words, or short sentences, as, "the green grass grows," "the fat cattle thrive," "the fish swim" (1865: 286-287.)

It was also used to impart self-confidence; Livingstone states that when the soldiers of the chief Sebitwane came in sight of their enemies, they "sat down and smoked it, in order that they might make an effective onslaught" (1857: 540). Whatever hallucinogenic and stimulating properties may be present in cannabis, and whatever psychoactive material in 1 HC, it was long since recognized in daily living by southern African people.

In the region of the present Malawi, Johnston (1897) observed it being planted and smoked as did Livingstone (1865). Hughes states that in the Malawi-Zambia area cannabis is smoked and it is known here as bange. This he recognizes as "a term introduced by the Arabs, the same word as the Indian Bhang" (1933 : 70). Turning further to the interior, we find that among the Ea-speaking peoples cannabis was extensively grown and "smoked in a kind of narghile." It is

of interest that the native word for hemp is lubange (Smith and Dale 1920:152).

Tracing another route northward, i.e., along the western part of the continent, we find cannabis being smoked in Angola where the usual horned water-pipe was used (Schachtzabel 1923) and where its use "by a slave is considered a crime" by the Portuguese (Livingstone 1857:541; Monteiro 1968:257). Across the Angola highlands one descends into the present Zaire, where hemp-smoking was said to be "the curse of the Batetela in Kasai province" (Hilton-Simpson 1911 : 256).

One of the most interesting areas to look at is the Congo drainage area and its border districts. Harry Johnston summarizes the picture by stating that "hemp as a narcotic is not much used in the Congo basin except in the southern, south-western, and south-central parts, and the western Mubangi. This practice has nearly died out in the kingdom of Kongo, though it was prevalent once. Of late years hemp-smoking has developed in a rather sensational fashion among the excitable Bashilange..." (1908:607-608). The latter, a sub-group of the larger Luba people, occupy the area around the confluence of the Lulua and the Kasai. It seems that Swahili traders from Zanzibar (Keane 1920 : 114) introduced cannabis into the region after the 1850's and the original bhang was here referred to as rhiamba. During the civil strife in the early 1870's a secret society calling itself Bena-Riamba was formed.⁶

In time there was concern about the increasing use of the herb and secret societies were formed to counter its use. A quarter of a century later Wissman pointed out that "among the younger generation it is already beginning to decrease" (1891: 308). It is interesting that, in the same region, we should find the Badjok, a southern Bantu people, who "denied ever smoking hemp, but a great quantity of it grew near Mayila's hut — probably as an ornament" (Torday 1925:271).

Cannabis was also smoked in the northern part of Zaire (Dorman 1905:88) and had spread into the former French Congo. Cureau states that people smoke tobacco moderately, but "the same cannot be said for Indian hemp, the habit of indulging in which is making frightful progress" [sic] using what was then recognized as a "peculiar pipe for smoking it" (1915:229,234

Looking to the east we learn that cannabis use was "in 1883 greatly on the increase" among the Nyamwezi in the current Tanzania (Wissman 1891:308). Half a century later Raymond stated that the use of hemp had become so widespread that the word njemu (hemp) was also used to refer to a "senseless person." They had a different term to refer to insanity 1938:74). North of

this region, the area frequently referred to as East Africa, we find the term chamba which is smoked in the absence of food or drink when they are tired, but which they admit "catches their legs" (Werner 1906:179). The linguistic connection between diamba and chamba is obvious.

Roscoe states emphatically that the "Basoga are addicted to smoking Indian hemp, and this makes them stupid and often stubborn" (1921: 249). The Baganda, however, did not take to the new smoking habit (Roscoe 1911). Since cannabis was introduced among the Bagishu, probably by some Arab traveller, it has spread from family to family. We find here an interesting belief in the potential harm cannabis smoking may have on a developing fetus. Purvis states that "a man will even forbid his wife to smoke it on account of some evil effect it is said to have upon her or her child, should she be about to become a mother" (1909 : 336— 337). Children were free to use it, however, for individual freedom of decision and choice was highly developed in Masaba.

We have not yet mentioned the non-negroid peoples in this part of Africa. Until fairly recently, there has been speculation about links between the hunters and herders in southern Africa and the Hadza and Sandawe in Tanzania. It has been suggested that since the San and these northern groups had a hunting and gathering economy, they must be related. Others suggested that since the languages of the Khoikhoi and San in the south and Hadza and Sandawe in the north were marked by "clicks" these people had to be related. Westphal (1963 and 1971) argues that "clicks" cannot be any criterion of linguistic affinity. The debate will continue. We do know that the Sandawe grow tobacco and "a plant with the same effect as the 'dagga' of South Africa" (Bagshawc 1924-1925: 226). They also use the water-pipe which seems to be associated with cannabis throughout the continent irrespective of region, socioeconomic level or linguistic group membership.

Referring to the Pygmies, the other major non-negroid peoples of the region, Torday (1925:240) notes that the smoking of cannabis "is practised to some extent among the Bangongo (a group living in the present Zaire), who say that they have learned it from the Pygmies, who were addicted to it since times immemorial...."

The author immediately allows for the more plausible explanation — that of Arab introduction — but continues by stating that "should it be proven that the Pygmies are responsible for its propagation, hemp would have to be considered as the oldest narcotic known to the Africans" : 240).

Regarding the Efe (one of the Pygmy groups) Schebesta explains that they believe that smoking the bangi would give them the "power to kill elephants" (1933: 229). The same variety of water-pipe they used was found among the Bambuti, made from either calabash or of clay (Schebesta 1952:167). The reasons given for the migration of the pygmies to the vicinity of Atoli and Arambi are that in this part of the forest there are plentiful growths of banana and bangi (Schebesta 1936:248). A photograph in this latter volume is described as Schebesta giving a plate of soup to a pygmy, but he seems to be holding a water-pipe (Ibid.: 192).

The most interesting fact about southern and eastern Africa is that we have found amazing uniformity in several respects: the water-pipe, with clay bowl, gourd, or horn; only smoking of cannabis; and a pattern of names (a) derivatives of the Arabic word *duXan*, or of the Khoikhoi *daXab*, in the south; (b) derivatives of the Indian term *bang* in the southeast and central regions; and (c) derivatives of the Swahili trader's term *riamba* in the Congo drainage region.

But what about West Africa? If the herb entered Africa from Egypt one would certainly expect its diffusion along caravan routes across the Sahara. If, on the other hand, the main routes were Arab traders' down the east coast, we may well ask how long it would take cannabis to spread across the continent from east to west, given the fact that the major population movements were southward and considering the fact of ecologi'Cal changes. If we can believe specialists who have published to date, cannabis either was not introduced to West Africa or was not accepted due to various factors. Asuni states that "Cannabis sativa is not indigenous to Nigeria, and evidence indicates that it was introduced to the country and most likely to other parts of West Africa during and after the second World War by soldiers returning from the Middle East and the Far East, and North Africa, and also by sailors" (1964:18). Furthermore, there is no traditional name for it though a number of local terms have since emerged. By 1965 Nigeria supplied for local consumption and "illicit traffic between neighbouring countries and in international illicit traffic" (Tella et al. 1967:40). It is then not strange to find the herb used primarily by "marginal" Africans, by young migrant workers, and by "organized political thugs" or "recently evolved secret societies with criminal aims, such as Odozi Obodo and the Leopard-men Society of Nigeria" (Lambo 1965:3, 6). In contrast to some of the cases in East Africa where cannabis is well-accepted and used by males and females alike, we find that it is "almost entirely confined to the male sex" in this region (Boroffka 1966:378).

Moving further west to Ghana the picture remains almost identical. The first illegal cultivation of cannabis in Ghana was reported by police in 1960 where the herb is called *Wee*, which Sagoe sees as "a corruption of 'weed,' by seaman" (1966: 8). The only way of using cannabis is by smoking it in a rolled cigarette. We can thus see it as a recent introduction without the normal accompanying paraphernalia.

Types and Methods of Smoking'?

As all evidence suggests, there is an association of hemp smoking and some kind of water-pipe, or at least the use of water in the mouth. The order in which these pipe types are discussed here may not follow an evolutionary sequence, but suggest some historical association with the Persian origins of the hubble-bubble.

Type I: Gourd Water Containers

Calabash, a variety of gourd, is used as a water container: the neck is cut off or a hole is made in its side to apply to the mouth of the smoker. Another hole is made in the body of the gourd, into which the pipe bowl is placed, either directly or attached to a connecting reed. The smoker inhales through the aperture, thus drawing the smoke through the water. This kind of water-pipe is found throughout the northern, northeastern and northwestern parts of the region under discussion. It is found also among the San hunters of Angola, the Kung and Heikum of the Kalahari region and peoples all along the Zambezi. These people "use a plain, narrow, oval gourd, narrower at the top end, where is inserted a reed which goes right down to the bottom of the gourd and has a bowl fixed at its top. The smoker inhales through a square hole cut in the side of the gourd" (Shaw 1938 : 282).

Type II: Horn Water Containers

In the area marked by large antelope and long-horned cattle the gourd is replaced by a hollow horn. The pipe stem now enters the horn at an angle, the horn is half-filled with water and the smoke is inhaled through the open end of the horn, usually that of an ox or one of the larger antelope species, e.g., the Kudu (*Strepsiceros strepsiceros*). Once again the clay bowl is attached to the horn by a hollow wooden tube or reed and the gum or wax may be applied to seal the junction of the reed and the horn; the mouth is applied to the large open end of the horn and the smoke is drawn through the water. Should the open end of the horn be too large, it is placed in such a way that half the opening presses against the cheek and the other half is covered by the mouth. There are various ways of inserting the reed stem into the horn, either at an angle as was done by Zulu, Sotho, Tswana and the Transkeian Nguni, or vertically as was done by the Cape San hunters. The Swazi, Thonga, and Venda used a longer reed stem but instead of cutting an aperture in the side of the horn, the long reed was placed down into the horn through the large open end. Stayt explains that the Venda hemp smoker "inhales by placing both hands over the opening and around the reed and drawing through the aperture

made by slightly parting the hands. The smoke passes through the water at the bottom of the horn. It is taken in huge breaths, and exhaled with great coughing and spluttering" (1931: 50-51). Among the Herero, and some of the San and Khoikhoi living in the Cape region the reed was absent as the bowl was placed directly on the horn.

A logical development was to block the open end of the horn by a piece of wood or horn, or to cover it with skin as the Cape San and Khoikhoi did. Schachtzabel (1923: 88) illustrates another variation from Angola in which the large open end of the horn is completely closed and a small opening made in the top of the horn.

A simpler form of this type was the use of a short piece of the shin bone of some animal. Shaw (1938 : 285) mentions it as "possibly the earliest tobacco pipe," and variations on it are found among the San (Schapera 1960:101-102) and the Bambuti (Schebesta 1952:167) for hemp smoking.

Type III: Sandstone and Earthenware Water Containers

Some of the Transkeian Nguni and the Tswana, Sotho and Matabele developed a water container consisting of a hollow rectangular block. "Two holes were made, one to hold the pipe bowl and the other for the insertion of the reed mouthpiece" (Walton 1953: 91). The water-vessel may be molded by hand, constructed and baked in the form of a block: "In one ingenious example half an actual brick has been used, and passages bored, one right through the centre and corked at each end, in which water is placed, and two others joining from the top, one for the bowl and the other for the mouthpiece" (Shaw 1938 : 282-283). Pipes with water containers of the same type are illustrated in Baard (1967:231-232).

Type IV: Ground and Wet Sand Pipes

These variations on the portable water container are apparent responses "when portable pipes are lacking, or when hemp smoking has to be practiced surreptitiously" (Balfour 1922 : 65). The pipe is made in the ground, i.e. formed below the surface, or may be built up on the ground surface.

Campbell, writing in 1822, explained how the Batapin (in present Botswana) "dug a hole in the

ground the shape of a basin, in which they formed with their finger, a round passage, down one side and up the other, in the shape of an inverted bow, this they arched over with clay, and filled their tobacco (or rather wild hemp) with a lighted cylinder at one end, and putting their mouths close to the other they sucked out the smoke" (1822 : 281).

This variation was also found in the eastern Zambezi river region as well as among the Ngoni, a Zulu offshoot who migrated into the present Malawi. An interesting description by Moszcik which first appeared in the Internationale Archiv fur Ethnographie in 1910 is given by Balfour (1922 :66) :

Two pits, about 8 cm deep are excavated in the ground, the bottoms of which are united by a groove of about a span's length, formed by removing the earth between the pits. Some moistened straws or rushes are laid along the groove, their ends projecting from both pits. The earth is then replaced in the groove and firmly pressed down and after a short time, the straws are withdrawn, a duct being thus formed. A hollow tube is stuck into one of the pits to act as mouthpiece and prevent particles of earth entering the smoker's mouth. Hemp is then placed in the bowl and kindled. A little water is poured into the duct and the native lies flat or kneels down and inhales the smoke through the water.

This method was also common among the Tswana and Matabele while the Heichware (a San group) as well as the Gonaqua (a Khoi group) carried a pipe stick with them and could thus prepare a small hollow in wet sand when available (Shaw 1938).

A brief statement should be made concerning the clay and stone bowls of pipes. Archaeological evidence points to the early presence of stone or earthenware pipe bowls in Rhodesia and Transvaal. Shaw states: "Presuming, as we may, that dagga came into the country before tobacco, we may take the water pipe to be the earliest form of pipe in the country.... These pipe bowls have been found over a large area from Zimbabwe to the Natal Coast" (1938 : 281) [*italics mine*].

Balfour confirms the presence of cannabis among "some unconsumed remains" in the bowl of a pipe (1922 : 66). The types of and designs on these pipe bowls are extremely varied and complex. Walton (1953) has made an initial typological classification of dagga pipe bowls, arriving at seven basic types. He also pays attention to the design on these bowls, while Baard (1967), with less success, attempted to look more closely at the design patterns. Walton concludes: "Eventually dagga pipe bowls should prove a valuable supplement to pottery and

beads as a diagnostic cultural feature" (1953: 112).

Large-scale agriculture in southern Africa until very recently was based on grazing animals and the cultivation of cereal and fruit crops. Most of the work was done by hired labor, usually African or Coloureds.⁸ It was customary for the white farmers to give their laborers a daily "tot" of wine or brandy, or a daily ration of rolled tobacco or dagga. The "tot-system" still exists in the western Cape, but the practice of rewarding workers with a handful of dagga was outlawed during the early part of the present century as dagga smoking became illegal.

What had been an institutionalized and even ritualized use, was thus legally prohibited. The old Xhosa or Zulu with his horn-pipe, taking his daily smoke is now encountered only in ethnographies.⁸ And so the custom was forced underground, resulting in new kinds of ground pipes or in cigar-type preparations.

Type V: Modern Adaptations

Modern variations on nearly all these types of pipes have appeared, showing great initiative and ways in which elements are substituted.

The Illustrated London News of September 30, 1911 explains how the ground pipe was adapted by employing a glass bottle of which the neck and the bottom had been broken away. Baard (1967:223) describes a pipe found at a building contractor's site in Bloemfontein, made of cement and glass tubing in much the same way as those described above.

Variations on the horn and bone pipes have also been recorded and Schapera states that "nowadays the most prevalent form of pipe is an empty cartridge case" (1960: 101).

In modern times, there are a number of interesting innovations; two specimens taken in a police raid in a slum area in Cape Town are described by Shaw: "One is made of a pickle jar and the other of a coconut shell...."

In another specimen "the water vessel consists of a round enamel basin about sixteen inches in

diameter, built up on top with clay into a cone, in the centre of which is a large depression for the dagga..." (1938:285). A reed stem was used. Such substitutions may go back many years if we correctly interpret Baines' description of a Fingoe hemp pipe, made of bullock's horn that had a clay or stone bowl attached to it by a tube; "a can of water and a wooden tube bound with strips of raw hide" formed part of the apparatus (1964 : 213). The smoker here would take a puff at the pipe and quickly add a draught of water before expelling both.

We find two basic forms of use under modern urban conditions: some people, mostly older men, still use the pipe but with a clay bowl purchased at the Indian Market in Durban. Most young people, males and females, use a cigar form and dispense with all the elaborate paraphernalia of the water-pipe.

The different patterns of use are due partly to urban living conditions and partly to the danger of police interruption. As the pipe was replaced so, too, was the calm relaxed atmosphere of use. Stott (1959:20) points out that dagga was commonly smoked by older men who came home from a hard day's work: "They have a smoke after their meal and then sleep off the effects before morning."

STATUS OF RECENT RESEARCH

While Cannabis saliva L. is mentioned in various botanical studies the first complete discussion with ethnographic references appears in Watt and Breyer-Brandwijk (1932), and the first full-fledged study of dagga plants was published in 1936 by Watt and Breyer-Brandwijk. Study of chemical and pharmaceutical properties of the plant has been going on at universities and at the South African Institute of Medical Research.

Speight (1932), along with a great number of writers, suggested that "ill-health and insanity" are the inevitable results of continued dagga use, while Steyn (1934) quoted an earlier allegation that cakes prepared from the seed of Cannabis saliva have been suspected of causing poisoning in stock.

In 1935 the South African Medical Congress requested that "the Minister of the Interior arrange for a controlled investigation into the possible relationship of dagga-smoking with acute psychotic conditions and with the ultimate production of a state of mental degeneration in

Dagga: The History and Ethnographic Setting of Cannabis sativa in Southern Africa

Written by Brian M du Toit

addicts." Non-white inmates at the Pretoria Mental Hospital were selected as research subjects. The results of the investigation were published by the Medical Staff in February, 1938. While participation in the project was voluntary, three classes of patients were included: the "confirmed addict" [sic]; the regular smoker; the patient who had never smoked dagga.¹⁰ The Medical Staff conclusion states that "the facts observed appear to indicate that dagga, as an intoxicant, produces symptoms very similar to those produced by alcohol.... Many natives apparently use dagga as the European uses alcohol, i.e., as a so-called "stimulant." It is difficult to determine whether the moral degeneration, which often exists in an addict, is the cause or the result of his addiction" (1938 :87-88).

Little attention was paid to dagga in the ensuing period until the recent interest in marihuana in the United States hit the headlines, and the South African Government proposed its new drug law.

In 1923 the government of the then Union of South Africa proposed to the League of Nations Advisory Committee on traffic in Opium and Dangerous Drugs that "the whole or any portion of the plants C. Indica and C. Sativa" should be treated as habit-forming drugs and included in the international convention.

Under the provisions of the Medical, Dental and Pharmacy Act No. 13 of 1928 (as spelled out in Articles 61-70), it became illegal to grow, use, sell or supply in any form products denoted as "habit-forming drugs." Under this heading dagga was included. Article 69 states: "No person shall smoke, or use, or shall import, manufacture, sell or supply, or possess for purpose of sale or supply to any other person, any pipe, receptacle or appliance for smoking opium, Indian hemp or dagga or intsangu, or save and except in the circumstances contemplated in sections sixty-two, sixty-four...."

The latter section made provision for licenses to be issued for the cultivation and export of dagga. Since the law came into effect in 1928 only one license was issued for the cultivation of dagga and one license for the export of the herb. These licenses were not renewed. The reason for the non-renewal is quite likely that the foreign market for legally importing dagga had evaporated.

Under the provisions of Act 42 of 1937 which followed, a farmer was subject to prosecution should he cultivate or permit dagga to grow on his land. Figures in the Government Report of 1952 on dagga trade and "abuse" indicate that the African and Coloured groups, who comprised about 76 percent of the total population, represented 96 percent of all dagga-associated prosecutions.

The general public has thought of dagga use as a problem identified with African or other political minority groups. A number of writers have pointed out that it was increasingly associated with the "poor-White" and James warned that "it has become permissive among the White Elite male youth of this country" (1970 : 581). It was thus with somewhat of a shock that conservative white South Africans read a report on drug-taking among the national servicemen at Voortrekkerhoogte — the South African West Point. Levin, who conducted the study on 188 drug-dependent white males, made a number of rather startling statements:

It was found that cannabis usage was by far the most common; all 188 drug users used cannabis. In fact, except for sniffing agents and cough syrups, it was apparently used as the initial product in all the cases. It was found that 76.3 percent of all regular cannabis users proceeded to take other drugs regularly..." and that "the longer one uses cannabis the severer the addiction becomes "(1972: 1691-1692).

Levin concluded that "without cannabis there was no progression toward other drugs, including the so-called 'hard drugs' " (1972: 1693). Does this imply that the other 23.8% in time will become hard drug users and that all drug users started with cannabis?

Since Levin acknowledged that multiple drug use was the rule (Ibid.: 1691), he is evidently reporting on the users of amphetamines, barbiturates, LSD, opium, cocaine, cough syrups, glue, alcohol, weight-reduction agents, and/or Datura stramonium, alone or in combination, with cannabis. A recent review of the South African medical literature indicates the lack of carefully controlled studies of users versus non-users." The study of cannabis and its effects alone is lacking in sweeping studies of "drug-taking."

In this light it is of interest that Shapiro twenty years ago, as editor of the South African Medical Journal, pointed out that "a careful study of the social effects and psychological actions of dagga is long overdue" (1951 : 286).

A number of academicians are conducting research on the psychological effects of dagga use, and the National Institute of Personnel Research is working on the neuropsychological effects and developing appropriate tests. The critical fact is that research should not be culture-bound, nor be limited by language barriers between the various peoples of South Africa.

In 1972, the Secretary of Social Welfare and Pensions sent a memorandum to universities seriously urging research of all kinds (mentioning social sciences by name), on drugs, drug users, and the effects of drug use, including dagga.

*A Sociocultural Study of Cannabis in Africa*¹²

In September 1972, a research project was initiated in the province of Natal. While focusing on the Zulu population, it is by no means restricted to them; it is hoped that in time the research might be extended cross-culturally to other ethnolinguistic groups and cross-nationally to other geographical regions so that it more closely approximates a study of Cannabis in Africa.

The study will investigate a number of basic questions» The first of these is to establish the type of persons who uses dagga. We believe it is possible to ascertain a profile of the "typical dagga user," but whether this alone is of predictive value is open to question. The social survey will cover urban and rural residents and gather data on residential and demographic questions, income categories and economic implications of use, social ties and interaction sets as well as descriptions of living routines and life-style. Our research is also aimed at elucidating rural-urban patterns, age groups, differences and patterns which involve uni-ethnic versus multi-ethnic groups of users: production sources of dagga, distribution patterns and networks, and associated stimulant and drug use. The study will also include biographical interviews with long-term users.

CONCLUSION

This paper brings together for the first time most of the published historical and ethnographic material available to date which deals with cannabis in southern and eastern Africa. However, this background information and the hypothesis regarding origin, dates and distribution of cannabis, represent only the beginning of our study. As this is being written our research returns are starting to come in. The final analysis and reports will follow the completion of this research project and our return to university facilities.

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1 Whether this has greatly affected the growth cycle, size or foliage of the local indica variety is not known.

2 One of the persons who has made this insistence on the clearest linguistic grounds is Westphal (1963; 1971), who is rewriting the linguistic prehistory of southern Africa.

3 Arbousset and Daumas, speaking of the Free State Bushmen whom they met on their visit to a settlement, state: "The old mama took from her neck a bit of some narcotic root, lit it at the fire; and bringing it near her nose, snuffed in the smoke" (1846: 251). This seems to have been a common practice, for Stow (1905) also describes it.

4 Silberbauer (1965) produces a photograph of a young Bushmen woman smoking a typical short-stem pipe, but does not indicate whether these people use dagga or only tobacco.

5 Braatvedt (1949:134) gives a very good description of this game. The level ground in front of the smokers represented the battlefield and the saliva bubbles they blew through the hollow reed represented the respective armies. Due to the insangu influence, the saliva formed bubbles which would not break for a considerable time. As the smokers took turns with the hollow reed their respective armies tried to encircle one another. This was the pastime, and a very exciting one, for the old men.

6 Early writers translated this as "Sons" of hemp, but Johnston points out that we should recognize *bena* (meaning "brothers") not *bana* (meaning "children"). He suggests the use of an initial D rather than R (1908 : 608) to read *Bena-Diamba*, but due to the widespread use of *Riamba* we will retain it here.

7 While smoking leads to certain uniformities, we find a wide variety of "pipe" forms and diverse ways of inhaling the smoke. The classificatory categories to be employed in this section have been used by a number of authors, notably Miss M. Shaw of the South African Museum in Cape Town, and James Walton.

8 The racial classification "Coloured" includes Cape "Coloured" (Mestizo), Cape Malay, Chinese and other Asiatics and Griqua. After the Population Registration Act of 1950 the latter was classified as "Native."

9 We should remember that "accustomed smokers used dagga in moderation and in somewhat formal fashion; intemperance was frowned upon then, and probably, among the rural Bantu, it is even now" (James 1970 : 576).

10 The subjects mostly used the regular pipe method of smoking in which they would take a mouthful, inhale the fumes, and then spit out the water. Dosage varied from 30 grains of dagga taken by "confirmed addicts" to 10 grains used by beginners. "These experiments, carried on over a period of approximately six months, did not show the development of a tolerance to dagga in the latter case" (Medical Staff 1938: 85).

11 James reviews the available information concerning dagga and concludes that "there are

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very few recorded firsthand clinical observations and assessments in our medical literature presented as case histories, and none in South African medical literature, which is surprising for a country with such a long experience with the drug" (1970:578).

12 (As Principal Investigator I would like to express my sincere appreciation to the National Institute of Mental Health in Washington D. C. for funds provided under grant ROI—DA-00387.)

13 The attempt to find references to dagga in current social science research reports is a matter of utter frustration. I have searched in vain through anthropological monographs and urban studies on southern Africa. Phillips, in his classic study of the Bantu in the City has a single reference to "dagga smoking" (1938:104-105), while numerous others hardly mention the subject or make the usual easy exit by linking "drinking and smoking dagga," or "young tsotsis smoking dagga"(Tsotsis are young urban gang members).