



The Socio-Cultural Perceptions of Mushrooms in the Western Grassfields of Cameroon

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Abstract

The mushroom is a delicacy in most, if not all Western Grassfields cuisine. It is regarded as a vegetable but science has proven that the mushroom is also a fungus. It naturally grows in March, April, August and September. In the past, the people usually depended on nature to provide the mushroom, but today, many people are cultivating the mushroom both in small and large quantities. This research seeks to answer two questions: What are the perceptions of the Western Grassfields people regarding the mushroom? What is the place of the mushroom in the lives of the Western Grassfields people? The objective of this paper is to find out the perceptions of the Western Grassfields people about the mushroom and to examine the functions of the mushroom in the lives of the people. Qualitative research was used for this article with techniques such as direct observation, in-depth interview, life history and photography. Theories used to interpret the data included symbolic Anthropology and functionalism. Findings reveal that the mushroom is a delicacy in most cuisines in the Western Grassfields, it plays a role in healing as it has many therapeutic benefits. The mushroom is a good source of income which is one of the reasons why it is much cultivated today. The cultivation of the mushroom is an economic activity and if it is well harnessed, it will serve as a veritable source of employment to many people, especially the youths.

Subject Areas

Agricultural Science, Anthropology

Keywords

Mushroom, Socio-Cultural Perceptions, Western Grassfields, Cameroon

1. Introduction

The mushroom (which has an umbrella shape), called *bo'or* in the Bafut and

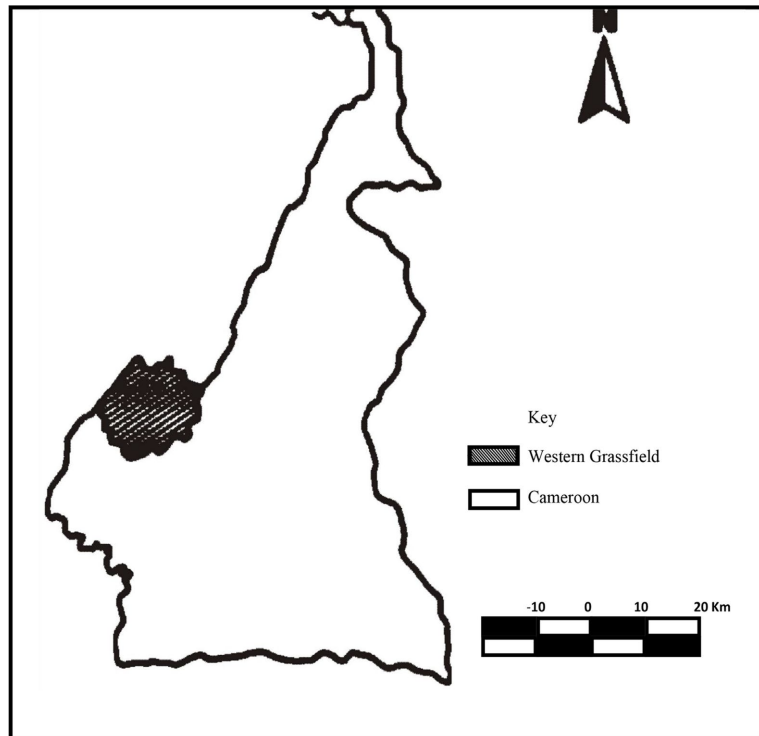
febo'oh in Mbei languages respectively is a fungus although most Grassfields people regard it as a vegetable. The mushroom is a fungus with a round top and short stem. This fungus grows from the ground and on specific logs of wood. Those that grow from the ground do so at specific periods of the year unlike those which grow on logs of wood. It is believed that seeing a single large mushroom and dreaming about mushroom is a sign of ill-luck. The mushroom was said to be first cultivated in China as early as 600AD [1]. Ancient Greeks believed that mushrooms provided strength for warriors in battle, and the Romans perceived them as the “Food of the Gods [2].

The consumption of mushroom is growing fast due to its balanced nutritional composition and because it provide benefits for health improvement since they are low in calories, sodium, fat and cholesterol but rich in fibre, vitamins and minerals [1]. Some mushrooms are edible and taste good while others are poisonous and taste foul. There are about three identified types which are edible and prominent in the kitchens of many Western Grassfields women. The mushroom is cooked in many foods, especially sauces and porridge foods. It is a very good source of iron and can be easily grown on agricultural residues at-home scale, dehydrated, and stored in powder form, which can supplement the daily diet [3]. The mushroom has a high economic value and it is also used for therapeutic purposes. It is also cheaper compared to meat and other dairy products. Though not really proven in the field of research for this article in the Grassfields regions of Cameroon, it is believed that the health benefits of the product are enormous as it can treat many diseases. Today, there are many individuals who cultivate the mushroom for a living. The Cameroon Grassfields region is a favoured place for mushroom due to its vegetation. The Western Grassfields (**Map 1**) is found in the Grassfields regions of Cameroon. The Grassfields is a cultural zone in Cameroon. That is, Cameroon is divided into four cultural zones including the Grassfields, the Sawa, the Fang-Beti and the Sudano-Sahel.

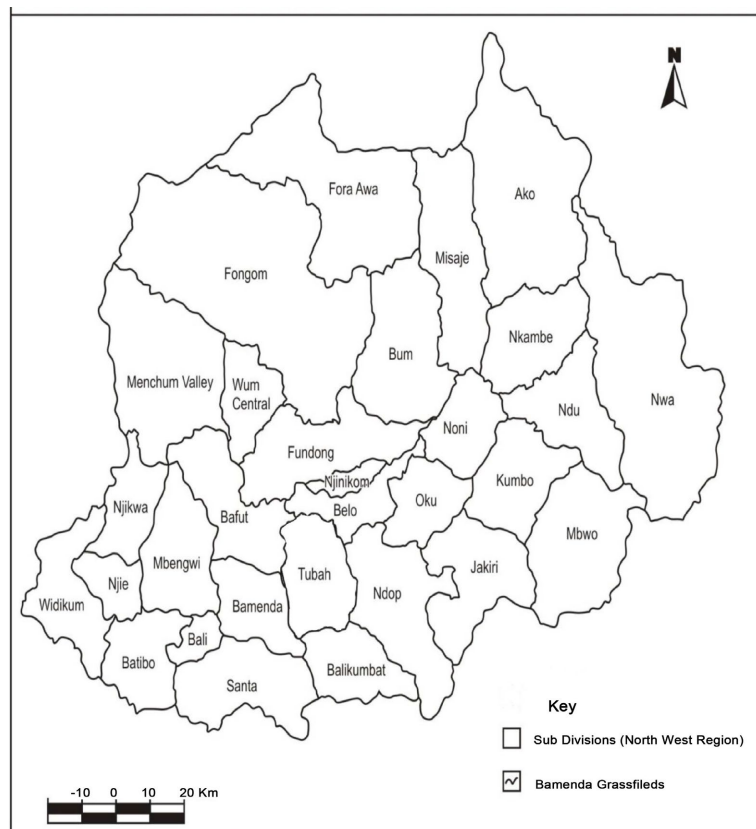
The Western Grassfields is the North West Region. It is the region that corresponds to the Anglophone North West of the Republic of Cameroon (**Map 2**). The part of the Grassfields that was under English Administration known as the “Bamenda Grassfields” [4]. It is called the Grassfields because they are a country of grassy hills and mountains with open gallery forests at an average altitude of 4000 feet above sea level.

The natural vegetation of this region consists of short and tall grasses. The Western Grassfield has a sub-equatorial climate type with two mark seasons—the rainy and the dry. The rainy season begins from mid-March to mid-November, while the dry season starts from mid-November to mid-March though climate change is gradually modifying these periods of the year. The mushroom grows in the rainy season beginning after the first rain.

All the people of the Western Grassfields are organised in fondoms of varied sizes, and here, there are people of Tikar, Widikum and Chamba origins. The majority of Western Grassfields are of the Tikar stock meanwhile most Ngemba



Map 1. The map of Cameroon showing the Grassfields. Source: Adapted from the Administrative figure of Cameroon-MINATD-1992.



Map 2. The Western Grassfields or Bamenda Grassfields. Source: Tikere's Archives (2016).

speaking fondoms such as the Mankon, fondoms of the Momo Division and some fondoms of the Santa Sub Division claim origin from Widikum and the Balis are the Chambas [5].

Many Western Grassfields fondoms are independent and the political structure of most, if not all are basically similar. The *Fon* has very great executive and traditional authority followed by chiefs and fon makers. The quarter heads also make up part of the political structure of these fondoms. The political system is based on hereditary and traditional authority and access to power is highly determined by direct descent [4]. On the political strata of these fondoms, the *kwifon* comes first followed by the *Fon*, chiefs, *fon* makers and quarter-heads.

The people of the Western Grassfields are polytheistic. They believe in religions such as the African traditional religion, Christianity and Islam. Most Grassfielders are animists because they believe that spirits inhabit some natural objects and such spirits control the lives of these people. They equally have many gods and ancestors, and each has a specific role in the society. If these gods and ancestors are venerated they will be very benevolent (nice) but if neglected, they are capable of punishing the living. It cannot be a surprise to see individuals who practice at least two different religions including one traditional religion and a foreign religion.

Christianity and Islam are foreign religions. Christianity, brought to the Western Grassfields people by white missionaries, is the belief in Jesus Christ who is the son of the Almighty God. Christians believe that God is the creator of the world and everything therein. By so doing, they have to give praises to Him. Islam is a religion practiced by Muslims. The word Islam means voluntary “Submission” or “Surrender” to the will of God (Allah). Muslims believe that God sent prophets to teach mankind how to worship Him, and the last of the messengers was Muhammad meaning peace be upon them all.

2. Methodology

The research was done through the following process: study designing, selection of research participants and tools, data collection, and data analysis. This process was guided by some theories including symbolic anthropology and functionalism.

2.1. Study Design

The researchers used the narrative study design, a design which allowed the participants they interviewed to share their knowledge on the way the Western Grassfields people think and say about mushrooms and also the functions of mushrooms in the lives of the people. These participants were allowed to discuss just everything they knew about mushrooms from perception, use, and their cultural significances in the different fondoms. This study design guided the collection of data and the researchers’ used methods of analysis that achieved the research objectives.

2.2. Selection of Research Participants

The researchers used the snowball sampling method to select participants for the

study. Snowball sampling is a non-probability sampling method where new participants are recruited by other participants to take part in a research study. It begins with two study participants and then continues on the basis of references from these participants. The process continues until the researcher reaches the desired sample of a saturation point. The participants were mostly elderly men and women who have good knowledge on what mushrooms are and how they are used in the cuisines. Hence, twenty-seven (27) informants were interviewed all divided into eleven (11) males and sixteen (16) females. The informants all fall within the ages of fifty-five (55) and ninety (90). The researchers equally worked with four traders who are involved in the commercialisation of mushrooms. The snowball sampling technique was to ensure that a wide range of the study topic was covered.

2.3. Data Collection

The findings which have been presented in this article are based on observations, interviews (in-depth included), taking of photographs as well as life histories conducted with some Western Grassfields elderly men and women. As regards observation, one of the researchers grew up in the country-side where he often went to the farms to cultivate and harvest crops, as well as to collect firewood from hilltops. In some of the farms and hills he went to, he saw the black large mushroom which he harvested. The researchers participated in the harvesting of the small black and white mushrooms. These mushrooms collected were usually cooked in some foods like the *achu* soup, porridge plantain and Irish potatoes.

The researchers conducted in-depth interviews with some elderly men and women and among the men were five farmers and three hunters who usually perform their activities on the farms and forests where mushrooms grow. These interviews permitted the researchers to know the different types of mushrooms which exist, how these categories of people viewed them and how they were used. Eight elderly female farmers were interviewed to find out the period when mushroom was available, the people's perception about it, how it was used and the way it was preserved. They also interviewed some traditional medical practitioners to comprehend if mushrooms are medicinal. If they are, they sought to understand the types of illnesses treated using the mushroom. Interviews were also conducted with four women involved in the commercialisation of mushrooms. These interviews were mainly to understand whether or not trading in mushrooms is lucrative. The last set of interviews were held with farmers of mushrooms and here, five of them were interviewed, two males and three females. Interviews with these farmers were aimed at the types of mushrooms which they cultivate, what motivated them to be involved in the growing of mushrooms, who their clients are, and what they are doing to hand this trade down to others. They were equally interviewed to know how much income can be made from mushrooms cultivation. Life history was done with two persons, one elderly man of eighty-five years and an elderly woman of seventy years. The interviews with them were done for long hours and over the period of two weeks to know the period when mushroom

was available, the people's perception about it, how it was used and the way it was preserved. A digital camera was used to snap the different types of mushrooms and where they grow. The photographs gave more reliability to the verbal information collected.

2.4. Data Collection Tools and Procedure

The researchers used the following guides: observation, and interview guides to collect data for the study. Among the questions that featured on the guides were the perceptions and functions of mushrooms in the Western Grassfields fondoms. The guides also handled questions which had to do with cultural meanings, cultivation and conservation of mushrooms.

In the course of the interviews, the researchers took detail notes in their exercise books. Most of these interviews were conducted in the evenings from 6 pm when the participants had returned home from their farms and jobs. Many of the interviews lasted for about an hour and those which did not end continued on a later date according to the availability of the informant.

2.5. Data Analysis

The data for this research was analysed soon after field work. Information recorded during observation and interview sessions was transcribed verbatim and arranged according to the different themes (perception, function, cultural significance, cultivation and conservation of mushrooms) and categories of people interviewed.

2.6. Theoretical View

The data was explained using the theories symbolic anthropology of [6] and of functionalism of [7].

2.6.1. Symbolic Anthropology

This theory founded by [6] views culture as a system of shared symbols and meanings which people use to understand and interpret their world, behaviour and social interactions. The mushroom stands as a symbol of unity and social interaction in most societies that value mushrooms. Unity and social interaction keep societies together. Mushrooms play this role because they bring people together during harvesting which causes them to interact with each other, making friendships and uplifting social interactions.

2.6.2. Functionalism

According to [7] functionalism is a theory used to explain the role of culture in a society. He says that culture has two main functions including the provision of biological needs and psychological needs. The cultivation, harvesting and consumption of mushrooms is cultural because different societies perceive and consume them differently. Hence, mushrooms provide both biological and psychological needs to those societies that value them as such. Biologically, mushrooms

provide food and food nutrients for the body while psychologically; mushrooms provide that opportunity during harvesting to bring many people together which enhances the feeling social interactions and togetherness.

3. Presentation of Findings and Discussion

The mushroom has a fleshy body, with an umbrella shape, and a reproductive structure of certain fungi. Mushrooms are edible fungus. They provide a range of antioxidants and other nutrients that may contribute to heart health and protect the body from cancer, among other benefits. The nutritional profile will depend on the type of mushroom [4]. Mushrooms are common in the Grassfields fonderms in particular and in Cameroon in general. They are seen mostly at some particular periods of the year and the people in this part of the country have certain cultural perceptions surrounding the mushroom. The presentation of the findings is done under the following sub headings: Taxonomy and perceptions of the mushrooms, their symbolism, their functions, the cultivation and the conservation method of the mushroom today.

3.1. Taxonomy of Mushrooms in the Western Grassfields of Cameroon

There are multiple varieties of mushrooms in the Western Grassfields of Cameroon but most people recognise three types which are edible. However, the Bafut people have many varieties of edible mushrooms like the *moufoufou* and *bo'or*. They have *moufoufou* (smaller types that grow especially at night with a lifespan of two days), *bo'or ngo'or*, *bo'or nsa'ah*, *mantuere* (same species in two different colours with a lifespan of three days), *bo'or nchu'u nsang* (mushrooms that grow on corn combs and *bo'or tii*) tree mushrooms with a lifespan of four days, including those that grow on cut down and decaying palm tree stems and the decaying stems of some hard woods. *Bo'or tii* has four different colours—yellow, white, cream white, brown. This article therefore concentrates on the edible mushrooms which exist in three varieties; the small, large and those that grow on decaying stems of certain woods (see **Table 1**).

Table 1. Types of mushrooms and their names in different Grassfields languages.

Fonderms	Names in some languages and types of mushrooms	
Mbei	Masangha (small mushroom)	Wiyeih—female (White) Mbangha—male (Black)
	Febo'oh (large mushroom)	White Black Brown
	Reye'eh (tree mushroom)	Yellow White Cream white

Continued

Bafut	Moufoufou (small mushroom)	White Black
		Ngo'o it grows where termites are (white)
	Bo'or (large mushroom)	Nsa'ah, it grows on the hill (white) Mantuere (black)
		Bo'or nchu'u nsang, it grows on corn comb (white) Brown
	Bo'or tii (tree mushroom)	Yellow White Cream white
Oku	Emntotos (small mushroom)	White Black
		black
	Keghork (large mushroom)	White Yellow
		Cream white
	Kelem (tree mushroom)	Brown White

Source: Authors development (14/05/2025).

3.1.1. The Small Category

This is the smallest type of edible mushroom in the Western Grassfields of Cameroon. It is known in the Mbei language as *masangha* and in the Bafut language as *moufoufou*. The *moufoufou* exists in two types; black and white. The Mbei people perceive the black to be male meanwhile the white is female (see **Table 1**). Both have slender stem with small round top but the male is slightly larger than the female. The female is completely white in colour (**Figure 1**).



Figure 1. A heap of small white mushroom. Source: Tikere's archives (10/09/2020).

This mushroom is very rampant in the month of August and in some areas in the month of September. Commenting on the *moufoufou*, an interlocutor in Bafut said that:

This mushroom is very common in the month of August when there is plenty of rainfall. This is the period in Bafut when we are harvesting maize, so, it is usually found in maize and groundnut farms. We believe that the growth on moufoufou is caused by much rainfall (Fuh, 11/06/2023).

An elderly farmer in Mbei told the researchers that:

The small mushrooms are common during the period when we are harvesting maize. In cold places like Santa, it is usually seen in the first Weeks of September. It is at this time that the people in this cold place harvest maize. The month of August is characterised by frequent rainfalls though not heavy, and our people say that these rains wet the ground which cause the mushroom to grow in early September (Achu, 10/10/2023).

3.1.2. The Large Type

This mushroom is known as *bo'or* in Bambui and *po'or* in Awing is larger than the small type. The large category like the small one exists in black and white colours (**Figure 2(a)** and **Figure 2(b)**). This type has a large stem and a large round top which makes it fleshier than the small type. When the large mushroom (**Figure 2(a)**), is full grown, it starts developing cracks on the round top part and if it is not harvested in time, it will be infested by maggots.

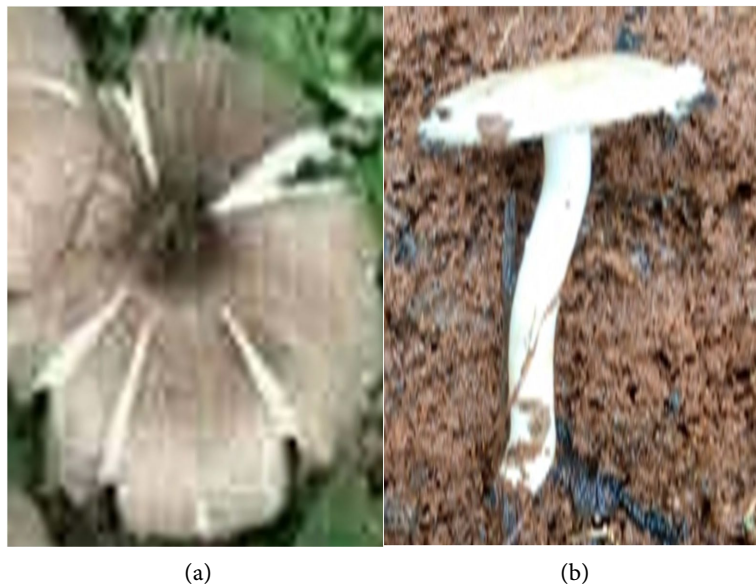


Figure 2. (a) and (b): The large black and white febo'oh. Source: Tikere's archives (14/05/2023).

This type of mushroom usually grows on hills in the month of April, a few weeks when the rain returns after the long dry season. An interlocutor, a Kedjom Ketinguh, in an interview said that:

Some people say that when the rains return and touch the earth after the long dry season, it makes the mushroom to grow. This type is seldom seen in months when there are heavy and prolonged rainfall. Here in Kedjom when rains come back in the month of March, three weeks after the return of the rain, many people including myself visit the hills every morning to search for mushroom. People who are lucky will find much of it which they will sell to make money (Vugha, 09/10/2023).

3.1.3. The Third Type

This is the category (*bò* or *tii* in Bafut) which grows on logs of certain woods especially hard woods like the eucalyptus and decaying palm tree stems. This type has four main colours; white (**Figure 3**), yellow, brown and cream white. This mushroom unlike the small and large types does not have any specific period which it grows. It grows on hard logs of already decaying wood whose decay is due to moisture and long stay. Commenting on this type of mushroom, an elderly woman said:

This mushroom is not seen on soft woods. Since I was growing up and seeing and harvesting this mushroom, I have never seen it grow on logs with soft wood like the mango, and pear but I usually see it grow on eucalyptus log which has been abandoned in a place exposed in rain and moisture. I also see it often on some logs of some hard woods in the bush. I think that it is the moisture in the wood which makes the mushroom to grow on it (Ngum, 11/10/2023).

This mushroom (**Figure 3**) grows only on wood which has moisture, this means that if the log on which it grows is found in swampy area, mushroom will always be seen on it even in the dry season.



Figure 3. The white mushroom growing on a decaying tree trunk. Source: Tikere's archives (14/05/2023).

The people of the Western Grassfields of Cameroon believe that most mushrooms are found where there are termites. The first indication of a place where

termites can easily be found is where they have their holes. They live in these holes and come out at special periods especially in the rainy season when there is prolonged rainfall, say for the whole day or many hours. When these termites come out (usually in the months of August and September), they fly around and some walk on the ground. As they walk, those without wings, excrete and it is their faeces which fertilise the soil and then makes the mushroom to grow there. This explains why the small mushrooms are rampant in the months of August and September when there is corn harvesting.

The mushroom is easily seen where there are holes of the termite. An elderly Mbei man told the researchers that:

It is common to see mushroom especially the small type around an area where there are holes of the termite. Where ever these holes are, be rest assured that mushroom will grow there. Another thing is that these termite holes also attract snakes as these reptiles use them as their hideouts where they can take advantages and feed on the termites. Whenever I am harvesting mushroom, I usually watch out for snakes (Ngu, 10/10/2023).

The second sign which indicates where mushrooms can grow is where their “house” or termite nest is in the earth. Such a “house” can only be seen when someone is tilling the soil to plant crops. This “house” is in the form of compacted earth (**Figure 4(a)** and **Figure 4(b)**). When seen, the owner of the farm will visit this area from time to time to verify whether mushrooms have grown there.

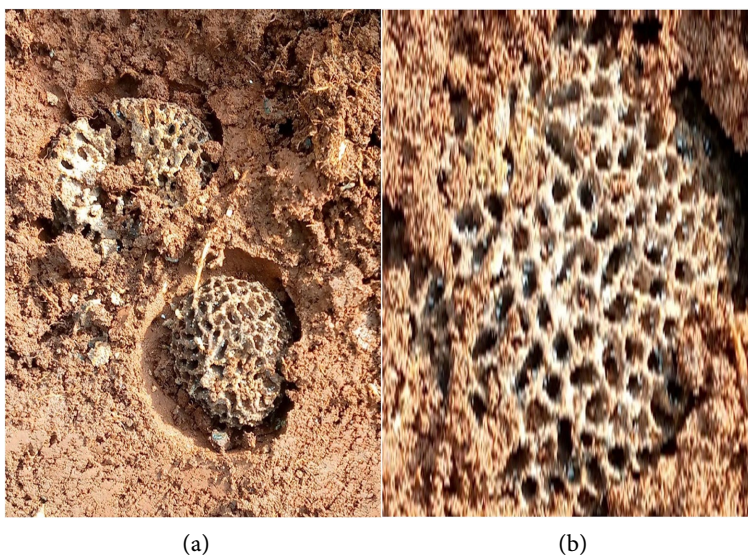


Figure 4. (a) and (b): Termites habitats believed to be at the origin of some mushrooms. Source: Tikere’s archives (14/05/2023).

3.2. Perceptions of Mushrooms in the Western Grassfields of Cameroon

The mushroom in the Western Grassfields of Cameroon is a delicacy in most if not all cuisines. It is regarded as a vegetable but it goes beyond this, it conveys messages of good and bad luck in diverse circumstances. Such messages are there-

fore coded and could be understood only by those who have a mastery of the culture. To interpret this data, the researchers used the symbolic anthropology theory of [6]. A theory which focuses on the symbolic rather than material aspect of culture. It is the study of culture through the interpretation of the meaning of symbols, values and beliefs in society. Seeing and dreaming about mushrooms have different connotations; good and bad luck.

3.2.1. Mushroom as a Sign of Good Luck

The people perceive that when someone sees mushroom especially the large ones, he or she is a very lucky person. This is because an unlucky person can pass in a place where there are mushrooms but he or she will be unable to see them.

3.2.2. Mushroom as a Message of Bad Luck

When a man or woman dreams of having harvested a lot of mushrooms, it is the belief system of the people that this person who dreamt will receive “bad news” particularly one that someone in his relation has to die or has died. A dream about the mushroom is therefore a sign of ill luck just like the meowing of the cat or the hooting of the owl. An elderly woman commented on this by saying that:

When somebody dreams that he or she has ‘removed’ or harvested much mushroom, the following day or the days ahead, he or she should be expecting to have ‘bad news’ or news of a misfortune announced to him. This misfortune is usually the death of a family member. So dreaming about the harvesting of much mushroom is considered as a bad dream (Lum, 09/10/2023).

Among the Western Grassfields people especially the Bambui and Bafut in the North West Region of Cameroon, it is believed that when one sees a single large mushroom be it the black or the white one, it is not a good signal. When this happens, just like dreaming about mushroom, it is a sign of bad luck. When someone sees a single mushroom therefore, s/he visits a diviner to find out what could be the ill luck which awaits him or her. An interlocutor had this to say:

It is not a good thing to see a single mushroom. It would be better not to see it than to see only one. Seeing a single large mushroom, is an indication that something bad will either happen to you or to your family. So when someone sees a single mushroom, he or she will hardly be at ease, hence, he or she may consult a diviner to find out if the bad luck which is announced by the mushroom could be avoided (Chotou, 13/10/2023).

3.3. Functions of the Mushroom

Mushrooms as earlier highlighted are fungus. Some are edible meanwhile others are not. Those that are edible are a delicacy when prepared in foods. One important thing about mushroom is that it is nutritive and cheaper to have or acquire when compared to meat which may be more expensive. Apart from their role in the kitchen, mushrooms serve other functions such as economic and therapeutic (though not proven). The data in this section of the paper was interpreted with the use of the functionalist theory of [7] Functionalism as earlier mentioned

above, says that the role of culture is to satisfy biological and psychological needs. Hence, mushrooms play this role in providing food nutrients to the body and this theory also explains the different perceptions that people have of the mushroom which include signs of bad luck and good luck. The mushroom is used in varied domains in the people's lives; social, economics, healing as well as aesthetics.

3.3.1. Social Functions of the Mushroom

It is a delicacy in foods such as *achu* soup, garden eggs and tomatoes sauces. *Achu* is a paste obtained from cooked and pounded cocoyam and (*achu* banana). It is eaten with either “*ndza niki*” (the mankon language)—a yellowish sauce made with spices, limestone and palm oil or “black soup” (made up of spices and well-cooked and ground cocoyam leaves) accompanied with *canda* (cooked cow skin), boiled garden eggs, egusi pudding and huckleberry commonly known among the Bamenda Grassfields people as *njama njama*. Some people enjoy eating it with hot pepper. Those who possess mushrooms include it in the *ndza niki*. This interlocutor had this to say about the mushroom in *achu* soup:

Hemmmmmm (she exclaimed), when you eat achu soup which contains mushroom, you will not want to stop eating because the soup is wonderful and tasty. The awesome taste is due to the presence of the mushroom in the sauce. At first I really used to enjoy sauce which was cooked with the tree tomato, but that prepared with mushroom is exceptional (Azeh, 09/10/2023).

The *achu* soup is not the only sauce or food prepared with the mushroom, porridge foods such as plantain, cocoyam, yams, and Irish potatoes are equally cooked with the mushroom. Food which contains mushroom has an awesome taste according to its consumers within the Grassfields.

1) *Mushrooms as a means of Socialisation*: Mushroom brings about socialisation, interacting with others such as family, peers, and community, to develop social skills and understanding. The harvesting of mushrooms especially the small types is an opportunity for children in the compound where the mushroom is found or among children who come from neighbouring compounds to interact with each other. It is important to mention that the small mushroom are harvested by children meanwhile the large type and the type which grows on decaying logs is often harvested by adults. Children are associated with the small type may be because it takes a lot time and patience to harvest since it is really small in size. When this mushroom is seen, the parents, uncles or aunts send children to go for its harvesting. These children take this opportunity of mushroom harvesting to discuss and then play. They discuss their exploits in school and at home.

As these children go to harvest mushrooms, the smart ones may go with two dishes or a basket and a dish or with a tray (**Figure 5**). The figure portrays a tray and a plate, one big one containing uncleaned mushroom and another containing cleaned mushroom. Much mushroom is removed and put on the tray and then cleaned and put on the plate which is on the tray. One little girl of 12 years said:

I usually take two containers whenever I go to harvest mushroom. One to put uncleaned mushroom and the other to put the one I clean. In effect, I do this so

that when there is no more mushroom left on the ground to harvest, I then clean the uncleaned one (Ambe, 16/08/2023).



Figure 5. The “female mushroom” on a plate and tray. Source: Tikere’s archives (10/09/2020).

It is important to note that the small mushroom is cleaned by uprooting and cutting the stump which comes from the ground with earth on it. This method is used because this type of mushroom is tiny such that a knife cannot be used to clean it. Unlike this small category, to harvest the large mushroom, it is uprooted and a knife is used to clean the earth on the stump which comes from the ground. In case the person who comes in contact with the large mushroom does not have a knife handy, he or she may prepare a flat piece of stick which he or she uses to clean the mushroom. The peculiarity of the small mushroom as discussed earlier is that it can cover a surface area of 15 metres squared making the whole area white in the case of the white mushroom and black in the case of the black mushroom.

3.3.2. Economic Functions of the Mushroom

The mushroom is of high economic value to those who harvest it. No matter when harvested, some of the large mushroom is taken to the market where it is sold expensively because many people value it for their food especially in the *achu* soup. In the month of April, it is common to see young boys from 16 years and above, men and women of Kedjom Ketinguh on the hills hunting the large mushrooms. This is often on the local holiday days in the week called *‘country sunday* when people are not allowed to work on the farms. During this period, individuals make some money as some sell harvested mushrooms at the road side to people passing in cars.

¹In many grassfields’ kingdoms and villages, there are eight days in a week. For instance in Bafut, two of these days are holidays dedicated to honour the kingdom’s ancestors. No work is done these special days. In Bafut, these special days are called *mumitaa* and *mitaniba’a*. In Pidgin English which is spoken in the Anglophone regions of Cameroon, these special days are called “country Sundays”.

Some individuals sell their mushroom in the local markets since many of the fondoms have daily markets. In Bafut, the main market holds on the day called *Yjion*. In the markets, those who have mushroom in large quantity may choose either to sell in baskets or retail. The retailed mushroom is put in small heaps on fresh plantain or banana leaf on any plastic bag spread on the floor. At the village level, a heap may cost two hundred (200) FCFA (about half a dollar) meanwhile in towns like Yaounde a heap range from five hundred (500) FCFA (about a dollar), one thousand (1.000) FCFA (about two dollars), to three thousand (3.000) FCFA (about six dollars). **Figure 6** portrays four heaps of mushroom, the smallest heap costs five hundred FCFA, followed by medium heap which costs one thousand FCFA and the large heaps one costing three thousand FCFA each.



Figure 6. Mushrooms retailed in heaps in the local market. Source: Tikere's archives (22/08/2025).

There are other people who trade in the mushroom. They go from one local market to the other and buy mushrooms in large quantity. This mushroom is dried properly and packaged in small plastic bags and transported to big Cameroon towns like Bamenda, Douala and Yaounde. The dried mushroom is prepared and served in popular restaurants in towns like Yaounde and Douala. It produces a lot of income as it is testified by the business people involved. This also explains why it should be produced in larger quantities because of this economic value.

3.3.3. Mushroom in Nutrition and Health

Writing on the nutritional values of mushrooms, [8] notes that mushrooms are regarded as functional foods because of their beneficial effects on humans. [9] state that mushrooms are regarded a full, healthy diet that is excellent for people of all ages, from children to the elderly. Several factors influence the nutritional amount of mushrooms, including species, stage of development, and environmental circumstances. Mushrooms are a good source of protein, fibre, vitamins, and minerals. [10] note that mushrooms are a high-protein, vitamin, and mineral-rich food. It contains about sugar (17% - 44%), protein (25% - 30%), mycocellu-

lose (7% - 38%), fat (2.5%) and minerals (potassium, phosphorus, calcium, and sodium). The nutritional component is determined by the substrate on which they are grown. They also note that cultivated mushrooms are higher in protein and minerals, lower in fat, and high in vitamins B, D, and K, with the presence of vitamins A and C on rare occasions. Methionine, arginine, alanine, isoleucine, lysine, glutamic acid, histidine cysteine, aspartic acid, tyrosine, valine, phenylalanine, glycine, tryptophan, serine, and proline are among the eighteen essential amino acids found in mushrooms. Mushrooms also contain important unsaturated fatty acids such as oleic, linoleic, alpha-linolenic and palmitic acids.

In the Western Grassfields of Cameroon, it has not been proven that the mushroom has health benefits or having medicinal properties. It may not play any major role in healing but it does in other parts of the world as revealed through literature review for this article [2]. Note that, all together with a long history as food source, mushrooms are important for their healing capacities and properties in traditional medicine. It has reported beneficial effects for health and treatment of some diseases. Many nutraceutical properties are described in mushrooms, such as prevention or treatment of Parkinson, Alzheimer, hypertension, and high risk of stroke. To [11], mushrooms are edible fungus. They provide a range of antioxidants and other nutrients that may contribute to heart health and protect the body from cancer, among other benefits. The nutritional profile will depend on the type of mushroom. From puffballs to truffles, mushrooms can range from everyday fare to a costly delicacy. People can buy them fresh, canned, or dried. In 2015, each person in the United States consumed, on average, around 3 pounds of mushrooms, according to the Agricultural Marketing [12]. records that mushrooms are used not for their culinary value due to their distinct flavour and aroma, but also for the possible therapeutic benefits as well as their effectiveness in treating and preventing a variety of illnesses. To [13], phenolic chemicals, polysaccharides, terpenoids, steroids, lectins, glycoproteins, and various lipid components are among the bioactive metabolites. Several researches have been conducted to show that mushroom extracts and secondary metabolites, such as antioxidants, have bioactive characteristics, antitumor, antimicrobial, immunomodulator, antiatherogenic, hypoglycemic, and anti-inflammatory.

Some studies have shown that mushroom consumption lowers sodium intake and decreases the risk of cancer [14]. note that sodium and high blood pressure often go hand in hand. Sodium causes the body to retain excess fluid, which can increase blood pressure. To decrease your sodium intake, consider adding mushrooms to your meals. Mushrooms are naturally low in sodium – an entire cup of white button mushrooms has just five milligrams of sodium. They offer savoury flavour that reduces the need for added salt to keep your blood pressure low [8]. equally states that, a review of 17 cancer studies from 1966 to 2020 shows that eating just 18 grams of mushrooms (equal to about a 1/8-cup or two medium mushrooms) a day may lower your risk of cancer by as much as 45%. Mushrooms are a powerful source of ergothioneine, an amino acid and antioxidant that pre-

vents or slows cellular damage. Some mushroom varieties (such as shiitake, oyster, maitake and king oyster) have higher amounts of ergothioneine. But researchers found that incorporating any variety of mushrooms into your daily diet will lower your risk of cancer.

Mushrooms intake can boot the immune system and improve digestive and gut health. According to [14] mushrooms have the ability to strengthen your immune system because of their anti-inflammatory and antioxidant properties. Mushrooms are a good source of antioxidants like selenium which boosts immunity and protects cells and tissue damage. In addition, mushrooms have beta-glucan, a polysaccharide, one of the most effective soluble fibres which stimulate macrophages. Macrophages are the killer cells that fight against various infections and protect the body from infection and certain diseases. They are also a rich source of Zinc that strengthen your immune system. Thus, it boosts your immune system and keeps you healthy. Another health benefit of mushrooms is their probiotic property. It helps to maintain gut health and increase the good bacteria in the gut. It happens because of the beta-glucan compound in mushrooms. A healthy gut relays better communication with the brain, enhances the immune system, improves digestion, and aids in overall health.

Many researchers also note that mushroom is a stress reliever and can keep the skin young. There was research done in 2021 by Penn State on 25,000 people that concluded that mushroom intake can decrease the chances of depression. Ergothioneine compound of mushroom lowers stress and decreases the risk of depression. They are rich in multiple minerals and nutrients and one of the nutrients Potassium found in mushrooms reduces anxiety and helps in lifting your mood and works as a stress reliever. It also boosts your memory power. Antioxidants present in the mushrooms keep your skin healthy and protect you from aging. Some researchers have also shown that mushroom has two powerful antioxidants (ergothioneine and glutathione) that make the skin to be healthy and also mitigate signs of ageing.

For thousands of years, medicinal mushrooms have been essential ingredients in traditional Chinese herbal remedies. It has been shown that mushroom has an anti-inflammatory capacity which has the ability to generate positive health effects.

The people of the Grassfields do not really see the mushroom as supplier of medical benefits. They eat it merely because they consider that it is food. They do not have any particular explanations about its health benefits unlike what is explained by various authors above. Some traditional healers in the Grassfields may have used it to produce medicines, but basically, the mushroom is used as food.

3.4. The Cultivation of Mushroom

The mushroom has numerous benefits in the social, economic and therapeutic domains. Due to these many benefits which are derived from the mushroom and the high demand by consumers, many people both male and female today in Cam-

eroon are engaged in their cultivation. They are actively involved in cultivating this fungus because they are edible, delicious, nutritive and financially beneficial. The demand has therefore increased over time needing that its production be improved upon. People should not only wait for nature to provide mushroom as it is the case during the beginning of the rainy seasons because the quantities cannot meet the demand in the markets. It should be cultivated so as to have it available in sufficient quantities. An informant who cultivates mushrooms said that:

I have been growing mushrooms for many years. I learned this from a friend who had always encouraged me to do it. I got interested in mushroom production because I saw him making much money from it. I grow it from corn combs and whenever I have them, I supply to owners of restaurants and some hotels. It is a veritable means of self-employment (Tangi, 18/06/2023)

In India, total mushroom production is around 0.26 million tonnes with white button mushrooms account for 73% of total mushroom production worldwide, followed by oyster mushrooms (16%), paddy straw mushrooms (7%) and milky mushrooms (3%) [15]. In India, four mushroom types have been recommended for year-round cultivation: *A. bisporus*, *Volvariella* spp., *Pleurotus* sp., and *C. indica*. The Indian subcontinent is known around the globally for its diverse agro-climatic zones and ecosystems that support a diverse mushroom species [16].

3.5. The Conservation of Mushroom

The fleshy nature of mushroom does not permit it to be kept for many days else it will get bad because of its perishable nature. But it can be preserved in varied ways; by drying, freezing and salting. The most used mushroom preserving method is by drying. Drying is the preferred method many people especially those in the hinterlands use because they do not possess fridges in which to freeze it. Drying is done either in the sun or in the ban. To dry mushrooms, a large or broad mat is needed. The mat is spread on the ground in the sun and the mushroom spread on it. If it has to be dried in the ban, the mat is spread in it and the mushroom dispersed on it. It is worthy to note that the mat used in this exercise is made from the outer hard part of the raffia bamboo. When it is spread either in the sun or in the ban, heat waves dry the water or moist content, inhibiting microbial growth and enzymatic activity. Drying of mushrooms is a women's activity since they stay at home most often to take care of the children. Before the mushroom is dried, it is first of all sliced in small pieces and sometimes salted so that the drying process will be faster. Small quantities of mushroom are dried on the woven bamboo tray.

In the case of the reye'eh (tree mushroom), before it is dried, the mature type is first of all boiled in salt and then dried. The salt plays two roles; it makes it not to get rotten nor have a bad smell and it provides it with some extra taste whenever it is cooked. An elderly woman said that:

I always have the tree mushroom because there is a tree trunk in my farm which was cut many years ago. This log of wood is decaying already and the edible mush-

room is growing on it. When I harvest it, I boil it in little salt and eat the quantity I need for that moment and dry the rest. I dry it on my woven tray and when it is properly dry, I store it in a container such that whenever I want to cook it, I just remove from there. This dried mushroom can last for a year provided it does not come in contact with moisture (Ngum, 20/06/2023).

3.6. Aesthetics Functions of Mushrooms

The shape of the mushroom especially the large type demonstrates a lot of beauty specifically to lovers of nature. This aesthetic nature of this fungi has made artists to represent it in the human environment. Such a structure could be seen in individual's compounds as well as in institutions (**Figure 7**).



Figure 7. Mushrooms built for aesthetics in an academic institution. Source: Tikere's archives (17/06/2025).

Figure 7 is in the campus of the University of Yaounde 1 in Cameroon. It shows students sitting under built structures that have the mushroom's shape. Students call that place *champignon* (the French word for mushroom). This place was built to serve as shades to students on the university campus. A shade just as the umbrella which has mushroom shape would provide. These shades conceived in mushroom shapes have also improved on the aesthetics of the campus. Hence, beauty is also found in the shape of the mushroom. Speaking to some students at the University of Yaounde 1, regarding the mushroom structures found on the campus some of them said that the structures serve as shades to them which they enjoy. But most of the time, students sit around them to discuss as well as do assignments given to them in the university. These "mushrooms" may serve some aesthetic purpose but they are an avenue where classmates and friends meet. It is a vivid explanation of the iconography theory as explained above.

4. Conclusion

The mushroom is a fungus but the Western Grassfields people say that it is a vegetable. It is perceived as good or bad luck in specific circumstances. It has so many

important uses that cannot be underestimated. Mushroom has social, cultural, health and economic benefits that need to be harnessed so as to maximise its benefits. Socially, mushroom brings many people together especially children who during harvesting. The *moufoufou* for instance, is mostly harvested by children, and by so doing, the activity unites these children and their families in communities. Culturally, the mushroom helps to display the rich cuisine of Grassfields communities through the various dishes in which it is served and consumed. This also goes to explain the health benefits that the mushroom has especially with the improvement of nutrients in the human body and other far reaching benefits. The mushroom brings in a lot of income to those who have transformed it into an economic activity through its cultivation and sale in and out of their communities. Because the mushroom has these important benefits, it is necessary that its sustainability and availability be enhanced so that many more people can enjoy it.

Conflicts of Interest

The authors declare no conflicts of interest.

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