

Ethnosemiotic significance of leaves among the Efik in South-Eastern Nigeria

Eyo O. Mensah & Godfrey Iwo

Department of Linguistics & Department of Crop Science, University of Calabar

eyoomensah@unical.edu.ng

<https://doi.org/10.60787/jolan.vol27no1-2.402>

Abstract

Communication by means of objects is an important facet of visual communication which is within the broader spectrum of multimodal communication. Among the Efik people in Cross River State, South-eastern Nigeria, tropical leaves have wide ranging communicative functions. This article explores the ethnosemiotic significance of eight tropical leaves and discusses the ways they have been conventionalized and used as traditional modes of communication. Data were collected through participant observation and semi-structured interviews from 25 participants who were purposively sampled based on their deep knowledge of leaves with communicative import. The study is rooted in ethnosemiotic methods and principles which explain how people make meaning out of symbols and how they are interpreted based on their culture-related semiotic codes and structure. The study discovers that tropical leaves among the Efik can be used to signal prohibition, demarcate boundaries, indicate bereavement, enact solidarity, and resolve conflicts. The research concludes that these leaves provide yet another element in understanding the dynamics of cultural communication, and illuminate their social relevance in the larger sociocultural fabrics of the Efik society, particularly as a framework of indigenous knowledge system. The study is vital to the construction and preservation of traditional communication systems and cultural identity.

Keywords: Cultural Communication; Leaves; Identity; Ethnosemiotics; Botanical Signifier

1. Introduction

Human communication is the most fundamental means of exchange between people. This is often achieved when internal responses of the receiver parallel those intended by the sender. In this way, human communication is the correspondence of shared meaning between the sender and the receiver [1]. This shared meaning can be initiated or interpreted using symbols, facial expression, eye contact, body language, gesture, and posture. For effective communication to take place, both the sender and receiver of the message must share linguistic experiences (meaning) and cultural rules in order to perform a variety of activities. The primary mode of communication (also known as verbal communication) is the commonest way of transmitting information from one person to another (Alwawi, 2019). This mode of communication uses vocalisation or speech and writing, and combines multimodal approaches such as facial expression, gesture, eye contact and emoticon among others. Non-verbal communication conveys ideas, information and emotion without the spoken language. In ethnosemiotics and social semiotics, non-verbal communication is widely refers to as ‘multicodal’ communication

(Hoppál, 1988) or what Kress and van Leeuwen (1996) call ‘multimodal’ communication because it has manifestations of codes or modes such as texture, movement, weight, size, colour, shape and position in space which tend to decentre the verbal as the norm of communication. This evidence reveals that non-verbal behaviours are multifunctional. In which case, it different channels are engaged at the same time in communicative acts and allow the chance of simultaneous message to be sent and received (Burgoon et al., 2016).

Visual communication, an important approach through which people communicate and share ideas and beliefs through the sense of sight, images or designs, is an essential component of multimodal communication. This mode of communication is unique because of its more abstract structure, and the interpretation varies on the viewer’s field of experience (Smith et al. 2004). Visual communication can also manifest in textual forms such as emails, emoticons and digital images. More broadly, it employs visual resources like signs, images and symbols to communicate ideas, values, emotion and attitudes and has tremendous influence on everyday life (Smith et al., 2004). The immediacy and tangibility of visual communication makes it a more effective means of communication, and bridges the gap that word-focused communication leaves (Chandler, 2022). This entails that visual communication occurs immediately, provides static image, saves time and improves performance in a significant way. Essentially, it retains memory and emotion and can resonate deeply with others. Communication by means of object which is intentionally displayed to convey meaning is an aspect of visual communication. Such objects are fundamental in facilitating effective communication, and relay meaning in a wide variety of contexts. Some tropical leaves in Africa have communicative values, and can promote cultural awareness and interaction.

The relationship between human and plants/leaves in every cultural environment has informed perceptions and laid the foundation for representation of leaves based on locally constitutive meanings (Mensah, 2023). This relationship has been deeply explored and reported in extant literature. Shoemaker (2010) maintains that understanding the past and the current roles of plant can provide insights into society’s values and can ensure a continued relationship between people and nature. Humans require plants for food, medicinal remedies, and religious ceremonies which shape the trajectory of human culture. According to Adnan & Othman (2012), some plant species help to preserve culture and protect natural heritage and its ecological knowledge. There are cultural rituals, beliefs and practices that are symbolised by plants. This is reflected in the way humans have adopted certain kinds of plants as modes of communication in some cultural contexts. Leaves convey important social and cultural information about certain actions, prohibitions, warnings, emotions and ideas among the Efik. They are modes of communication with both semantic and semiotic properties (Mensah, 2002). Tropical leaves are symbolic cultural resources with a complex system of communicating information and ideas that pervade all aspect of the Efik rural life. They play important roles in the daily social interaction of the Efik people and hold specific purpose in their culture. This mode of communication may be used between the living and the supernatural and involves rituals, religious and social activities.

The Efik people occupy the coastal areas of the Cross River, and are predominantly found in five local government areas of Cross River State including Akpabuyo, Bakassi, Calabar Municipality, Calabar South and Odukpani. Geographically, the Efik are located in South-

eastern Nigeria in West Africa. Efikland is situated within the Equatorial rain forest belt and its south-most shore is washed by the waters of the Atlantic Ocean (Mensah, 2008; Mensah & Dzokoto, 2023). The language of the Efik people is Efik which belongs to the Lower-Cross family of languages in the larger Niger-Congo phyla (Connell, 1994; Faraclas, 1989; Williamson & Blench, 2001). There are many forms of non-verbal communication in the Efik sociocultural context. An important component of this mode of communication is the use of leaves to express ideas graphically and aesthetically and to convey unspoken meaning. People outside the Efik socio-cultural setting rarely understand how and what the Efik communicate with the variety of tropical leaves. This form of communication begins with culture-internal ideas, that is, share values, norms and assumptions that need to be properly contextualised and understood within the peculiarities of the Efik culture. While a majority of research on traditional or symbolic communication focused on engaging communicative values of objects based on cultural knowledge and experiences, we shift this focus to discussing specifically the intricacies of communication by means of tropical leaves. This is the gap the present study aims to fill in the literature. This study aims to investigate the communicative value of some tropical leaves in the Efik cultural context and to analyse the ethnosemiotic and communicative functions of these leaves. This study therefore sets out to increase knowledge and understanding of the connotations and interpretations assigned to leaves as symbolic semiotic resources to convey messages or evoke emotions. The study aims to contribute new insights into understanding the dynamics of visual culture in a rural context, and to unravel the role of context in linking the signifier to the signified. Furthermore, the study will shed light on the symbolic use of leaves and on how leaves can be used to infer social meanings and communicative goals. This will spur scholarly attention to ethnocommunication within cultural studies, communication studies and semiotics.

2. The connection between plants, humans and culture

There is a profound cultural relationship between plants and humans. Plants are non-human nature, and they have immense symbolic, nutritional, medicinal and aesthetic benefits across many cultural environments. Schaal (2019) argues that plants are central to the well-being of human and non-human animals, and their history and future are interconnected with plants or the botanical world more broadly. Plants are essential human nutrition. Fruits, vegetables, cereals and nuts are derived directly from plants. Mathers (2006) maintains that plants provide the major part of human food intake. They are sources of fibre, minerals, vitamins and energy. The nutritional value of edible plants consumed by humans therefore positively impact human health. In some cultural settings like the Balinese of Indonesia, plants are not just sources of nutritional diets, they are also used for packaging traditional foods and snacks in the place of plastic plates. Sari et al. (2024) report that the people are preserving and modernizing this practice given its positive impact on the environment coupled with the inherent health risk with plastic plates as a result of its potential release of harmful chemicals into the food. A similar study by Kora (2019) reveals that the practice of serving food with leaves has its cultural, religious, medicinal and socio-economic significance. In this way, biodegradable leaf plates has vast potential that should be met in terms of quality and design to market the idea internationally. This is a pointer that plants provide humans with variety of needs to fulfil their daily requirements.

Plants are also sources of medicinal remedies to humans which are important facets of healthcare delivery. Plants contain diverse chemical compounds which are extracted by the pharmaceutical industry for many health benefits. This involves both orthodox medicine and traditional medicine. Sofowora et al. (2013, p. 210) argue that “medicinal plants play vital roles in disease prevention and their promotion and use fit into all existing prevention strategies.” In many cultures, especially in the rural context, traditional medicine, with rich therapeutic properties receives greater patronage because it is cheaper. Lee (2020) has argued that eighty percent of antibiotics, cardiovascular, immunotherapy and anticancer drugs, originate from plants. She further maintained that plants provide a fantastic source of naturally occurring, biologically active substances, many of which have proven therapeutic effects. Medicinal plants generally have improved health and well-being of growing population around the world. There are other numerous primary needs of humans such as shelter, furniture, and clothing that are derived from plants (Adnan & Othman, 2012). They provide the materials to decorate the interior and exterior of different kinds of houses. Some of these materials include timber, wood, straw which are used for roofing, tiling, walling and flooring. Textile and fabric materials are also produced from plants like cotton. Such products are eco-friendly and affordable. Rizal et al. (2024) recount how leaves serve as traditional wedding ornaments for bride and groom among the Aceh people in Indonesia. The study recommends that such a creative heritage should be preserved and pass down to the coming generations.

The relation between plant and culture can also be appraised from an economic perspective. Many countries of the world rely heavily on agriculture as the mainstay of their economy. They trade in many agricultural produce and products to generate revenue and increase their gross domestic product and economic growth generally. In this way, plants facilitate the growth and development of prosperous nations (Chahal, 2021). Plants equally have aesthetic value which is central to the cultural imagination of people. People appreciate the uniqueness of plants and rely on them for inspiration (Schaal, 2019). Plant help to reduce stress and make people feel better. It is also reported that plants have symbolic significance which encode different shades of meaning like the exchange of flowers as a sign of affection, using lilies as signs of innocence and purity and myrtle leaf as symbol of marriage and its consummation (Nature 2018). Another important intersection between plants and culture is their use in religious ceremonies across different cultures. Balick & Cox (2020) assert that plants are used by cultural insiders to reflect deeper philosophical concepts and spiritual ideals. Kumar et al. (2023) report how plants have representation in the Kumaun Himalaya ritual ceremonies. They maintain that certain plants are habitat for gods or gods themselves, and are considered sacred, venerated and worshipped. Related studies (Chaachouay & Zidane, 2021; Gairola et al., 2022; Quiroz & van Andel, 2018) have demonstrated how plants have provided cultural and religious depth to ritual practices, beliefs, taboos and totems, and how such practices have helped in the conservation of biodiversity.

Significantly, plants are essential components of the ecosystem. They contribute to biodiversity, nutrient cycling and soil stability. Plants generate oxygen which humans breathe and release them into the atmosphere, and further absorb carbon dioxide, a greenhouse gas during the process of photosynthesis. Plants also maintain the ozone layer and help save life forms from harmful ultraviolet radiation (Felzer et al, 2007). This environmental benefit shows

that plants actually provide the desired life support system to mankind. They play a pivotal role in the balance of nature. However, the present study is focused on just a component of plant which is the leaf to further engage and interrogate the intertwining relationship between plants and culture. In this concern, we are interested in understanding the meaning-making sense of some tropical leaves as representational symbols among the Efik. Symbolic communication relies on one-to-many mapping between a symbol and what it refers, and the meaning of symbols depends on widely established cultural conventions (Grouchy et al. 2016). Understanding this form of communication does not rely on semantic information from which pragmatic clues are drawn to infer communicative meaning.

3. Theoretical Framework

This study adopts insights from ethnosemiotic theory which offers aesthetic, moral and other interpretive codes that are necessary for communication (MacCannell, 1979). Semiotics is the scientific study of signs. A sign represents or stands for something other than itself. Going by de Saussure's (1959) postulation, every sign is made up of two significant parts: the signifier and the signified. The signifier is the actual form of the sign and the signified is the meaning associated with the form of the sign. The relationship between the signifier and the signified is arbitrary given that meaning association is culturally determined. Ethnosemiotics therefore studies sign systems and their functions in a particular cultural system. It deals with the semiotics of culture, and concerns itself with understanding symbolic elements as cultural texts or discourses (Umiker-Sebeok, 1977). Put it more broadly, ethnosemiotics investigates indigenous systems of connotative meaning of signs, symbols, and images. These are products of culture with their unique interpretive frames which are anchored on comprehension of the complex sociocultural system. This implies that every sign system is broadly understood in the context of a specific cultural environment. The ethnosemiotic model highlights processes of signification related to social practices given that such practices are part of the larger circulation of meaning (Stano, 2014).

Although communication by means of objects has been as old as humanity, the relevant methods and forms of this mode of communication have been researched significantly in the literature. Johnson and Weller (2001) maintain that visual communication allows communicators to express situations, feelings and concepts that cannot be converted to verbal communication. Similarly, Weber (2008) asserts that the use of visual stimuli can strengthen stronger memories in people, and help them to understand the basic structure of communication. Language is a system of representation. Hall (1997, p. 1) argues that "in language, we use signs and symbols...to stand for or represent other people, concepts, ideas and feelings." This evidence shows that representation is a crucial process of communication by which people share meaning depending on context and environment. The use of leaves as a resource for communication is a socially shared symbolic system that is used to represent an event, activity or action. It incorporates senses of touch and sight as well as creates physical experience through which people could reflect (Ashton, 2018). Communication by means of leaves is a way of interpreting culture or part of the traditional mode of communication. This justifies the claim by Schiffer (1999) that the study of the relationship between people and objects as channels of communication can lead to new and interesting discoveries about human nature and the society. Leaves are cultural objects but when they are used for the purpose of

communication, they become indexical signs that offer insight to understanding the structure of visual communication.

The present study illuminates the different communicative features and contexts associated with leaves among the Efik people. In the ethnosemiotic model of analysis, we conceptualise leaves as interpretable texts which are used to “express reflexive sensibilities about language” (Stasch, 2008, p. 1). Any object, action or behaviour that reveals cultural meaning is a text. Leaves are cultural texts that can be interpreted for narratives that reflect social experiences. It is this textuality that makes it possible for leaves to be read and understood as meaning-carrying objects. As texts, leaves can symbolically produce layers of signification and subjectivities which have been conventionalized in a particular cultural setting. This means that every communicative use of leaves has a reflexive intention and conveys certain effect of the communicative situation on the interlocutors. The implication is that leaves can produce and transform meanings and have deep cultural representation. The interlocutors share certain contextual background information that is relevant to the appropriate interpretation of the communicative signs and symbols the leaves represent.

4. Methodology

Data for this study were collected through a six-month ethnographic fieldwork in Akpabuyo and Bakassi Local Government Areas of Cross River State, South-eastern Nigeria, where the use of leaves as symbolic communicative resources is still prevalent. Twenty five participants were recruited through purposive sampling for the research. They were selected based on their willingness to participate in the research, coupled with their deep cultural knowledge of the interpretation of leaves as semiotic resources. They were recruited through personal contact in the two research areas. Participants were recommended to the researchers by their community members as those who could provide the best information on such cultural matters as communication by means of leaves. Participants’ ages ranged from 20-70. They were 15 men and 10 women. The unequal ratio in the choice of the research participants was based on the fact that men are more culturally grounded in interpreting cultural scripts like botanical signifiers than women. There was a particular female participant who disqualified herself from answering some of our questions insisting that we should wait for her husband to return to give us the rightful communicative meaning of certain leaves because she was not an Ekpe initiate. All participants were native speakers of the Efik language who are deeply rooted in the Efik cultural tradition. They have rich knowledge of interpretation of proverbs, complex personal names, marriage traditions and libation practices in Efik. Participants gave informed consent in writing for all interviews and recording. For those who could not read in English, the consent statements were interpreted into Efik for them to sign.

This study adopted an ethnographic qualitative design towards data collection and analysis. Participant observations, and semi-structured interviews were used in the elicitation and collection of data. Participant observations enabled the researchers to assume the status of subjective participants and objective observers in the study area. The approach helped the researchers to establish rapport with participants, and study their experiences of communicating by means of leaves in their natural environment. It also afforded the researchers the opportunity to observe the various kinds of communicative leaves and their layers of signification. We observed some cultural practices that involved the communicative use of

leaves such as conveyance of corpses, cooking of food, placement of boundary and initiation of non-initiates into certain secret societies. Semi-structured interviews allowed the researchers access to interact directly with participants to seek their opinions and impressions about the significance of leaves as modes of symbolic communication, and the local history behind each leave. This approach enabled the researchers to gather detailed account of the importance of these leaves in the Efik cultural context. This approach was also useful as it facilitates the “sharing of knowledge and growth of understanding through meaning making processes” between the researchers and participants (Feldman, 1999, p. 125). This method also enables the researchers to gather contextual information based on participants’ personal experiences of communicating by means of leaves. Through this dialogue, the researchers were able to appreciate the communicative import of each leave and the type of messages it communicates.

A corpus of eight tropical leaves were collected during the fieldwork. A digital audio recorder was used for all recording and interviews. Field notes were used to document transcripts of interviews and metadata of participants such as names (pseudonyms), gender, date of interview, and place of interview. Data were coded, checked for accuracy, translated and transcribed. One of the researchers is an indigene of Efik. His native speaker’s competence and introspection considerably helped to orientate the research. The descriptive method was adopted in the analysis and interpretation of data. This method allows for the analysis of the main features of data and enables greater flexibility and insights from participants’ views, perspectives and opinion (Mensah & Dokoto, 2023). This is significant in explicating the social and cultural meanings of leaves and their ethno-communicative and ethno-semiotic significance within the Efik cultural context.

5. Results

In the analysis that follows, we investigate the significance of eight tropical leaves in the Efik socio-cultural universe by highlighting their semiotic values and communicative import. The analysis examines the locally constitutive signification of these leaves in the context of cultural communication. The study further discusses the attitude the Efik people have towards this mode of creative communication in terms of intentions and interpretations and considers the implication of the study for digital communication in the contemporary world.

5.1 Oil palm fronds (*Elaeis Guineensis*)

Leaves from African oil palm tree plants are popularly known as *Ékpín* among the Efik. They commonly known as palm fronds (in English) and serve a number of communicative functions among the Efik. According to a participant, its first major function is to communicate the presence of a corpse in a vehicle or residence. For instance if a vehicle other than a hearse carries a corpse from one destination to another, these leaves are often tied to such a vehicle. A participant (Arit, Female 78) offered three reasons to justify the use of palm fronds for this purpose: first, the leaves are believed to possess some spiritual powers that will subdue the spirit of the deceased from disturbing the movement of the vehicle, and in protecting it against underworld spiritual attack. The leaves will further assuage the spirit of the deceased against any calamity or resistant on the road in the course of the movement. This is hinged on the belief that if the deceased died untimely, he or she may not be willing to be escorted to the great

beyond but has to pull some resistance by continuously redirecting the vehicle carrying the casket or corpse from the path towards the grave. Significantly, she also maintained that the leaves are also believed to delink the deceased's soul from having contact with the living in order not to disturb the peace of the latter. This is because the psychological image of the dead often reminds the living of frightening memories of the deceased and sustains a sense of constant danger. Beyond the spiritual implications of these leaves, participants also averred that they signify danger and sorrow and facilitate unrestrained movement of the corpse in event of disturbance by law enforcement agents like the police or Road Safety personnel along the road.

When a child is born into a family before its naming ceremony which is usually done on the seventh day. The Efik believe that the seven days period is meant to observe if the child will survive its potential trials and challenges in order to live. This practice is rooted in the belief in reincarnation where family ancestors are believed to rebirth their souls in new human forms within the same family. Children who reincarnate are said to have both biological and spiritual parents and the latter determines the destiny of the child including their right to live (Mensah, 2015). It is only when the child 'survives' these seven days that it will be given a name which is an official acknowledgement of its desire to live, and it is thus welcomed to the family and given a genuine identity as a member of the community. This practice reinforces the claim by Haviland et al. (2013) that the naming ceremony marks a child's transition from a state of nature to a state of culture. In other words, the naming ritual makes the named an authentic social and cultural being. From the day a child is born to the seventh day it is named, a palm frond is crossed at the door of the room the mother stays to nurse it. According to a participant, (Odo, Male 56), the general belief in this regard is that the palm fronds have the power to overwhelm all spiritual powers or forces that may want to harm the child. The moment anybody crosses the door, the efficacy of his or her power would be diminished by the palm fronds, and the child is thus insulated from potential malevolent attack or influence. It is therefore a common practice to see palm fronds at the door of maternity homes in Efikland.

When an Efik woman is preparing certain kinds of dishes like cocoyam porridge (*ékpáñ ñkùkwò*) or steam bean pudding (*moi-moi*), palm fronds are usually placed across the entrance to the kitchen where the food is prepared. The belief is that if people who have evil possession meet the cook while he or she is preparing the food, the food might remain undone and eventually becomes wasteful. The leaves are said to render such people spiritually powerless the moment they have access to the woman's kitchen. According to a participant, (Ikwo, Female 77), "the leaves are useful antidotes to counteract the action(s) of such malicious individuals." She believed that anybody who is a channel of communication for the gods, ancestors, underworld spirits or people who practice witchcraft must not interface with a person who is cooking some types of foods else, the food remains raw in spite of the intensity of cooking it. Since such people are not generally known in the community, it is always advisable for the cook to protect their pots with palm fronds.

Palm fronds are also used in preparing traditional plate to serve food to the river goddess by the Efik. Whenever there is need to consult the river goddess and place injunction against mishaps, ill-health, poor harvest and even untimely death, certain ritual objects called "food of the goddess" such as white native eggs, alligator pepper, old coin, small white stones and clay with their unique religious symbolisms, are often put inside a traditional plate made of palm

fronds which is used to present these sacrifices to the goddess. Participants generally believed that the palm frond plate is used to cleanse every defilement that may be associated with the food items before they could reach the level of spiritual attainment fit for the goddess' consumption. From this account, we conclude that palm fronds are associated with varied cosmic myths which are used in generating visual meaning based on culturally endorsed norms and standards. From the ethnosemiotic account, we have seen that palm fronds have numerous codified symbolisms as elements of daily life. They have layers of meaning ranging from the spiritual to the psychological, and can best be understood as cultural texts (Orr, 1986). They encode images, (colour), and symbols to express variety of intention and purposes. This evidence reveals that visual communication channel like leaves has multicondality (after Hoppal, 1988) or multimodal representation of meaning (Kress & van Leeuwen, 1996).

5.2 Boundary tree (*Newbouldia Laevis*)

This tree and its leaves are also called *Oboti* by the Efik. This tropical plant and its leaves are used to demarcate land boundary between families and communities. According to a participant (Ekamma, Female 56) "wherever you find this tree in our community, it is used to mark the end of a particular land boundary and the beginning of another." She maintained that it was the wisdom of their forebears to use this tree and its leaves to mark boundaries in order to avoid conflict between and among family and community members. She further reiterated that there is zero case of land dispute in the community because every family's land is clearly delineated with the boundary trees and their leaves. Beyond its role in demarcating boundaries, this tree and its leaves are also believed to have spiritual powers. The tree is planted in family compounds to ward off evil attacks from such a territory. Explaining this point further, a participant, (Ita, Male 63) maintained that evil forces that often attack people at night cannot operate in a compound where a boundary tree is planted. In the cultural setting of this study areas, witchcraft and African divination are dominant practices where people use diabolical means to protect themselves from imagined enemies (Parish, 2011). The Efik believe that witchcraft has influence over people's fortune or misfortune. The magical powers of witches are often used to justify ill-health, untimely death, poor harvest and spiritual attacks. The presence of this tree in one's compound is believed to neutralise such powers and protect the residence from the pernicious influence of underworld forces.

The leaves from the boundary tree also serve some social functions. When a curfew is declared in the community, these leaves are used to indicate the geographical coverage of the area affected by the curfew. According to a participant (Asukwo, male 69), in the Efik culture, traditional hierarchy of leadership graduates from the family head, village head, clan head to the Obong (the King). The participant stated that whenever there is an incidence that threatens public peace in Efikland, the Obong has power to declare traditional curfew through the instrumentality of Ekpe. In other words, Ekpe initiates in such a community are responsible for enforcing such curfews. The boundary leaves are bunched and tied to a stick at the end of every street affected by the curfew. This is a warning signal to stranger and community members to know the limit of the curfew as pronounced as narrated by a participant. The boundary leaf is also used by the Ekpe masquerade as a source of exchanging pleasantries. Ekpe is a significant aspect of the Efik cultural heritage given its usefulness as a symbol of power, means of oath-taking, source of social prestige to its initiates and for its performance, aesthetic and

entertainment values. According to a participant (Etim, Male 54), boundary leaves constitute one of the symbolic cultures of the Ekpe masquerade. The leaves are used in greeting its initiates, and they symbolise fertility, success, prosperity and growth. Another relationship this leaf has with Ekpe is when the masquerade meets an initiate who is wearing a pair of trousers instead of sash, the initiate will quickly look for this leaf (or any other) and tuck it into his trouser before he could be qualified to interact with the masquerade. The leaf signifies that he is an initiate and the masquerade sees on him a sash no longer a pair of trousers. This qualifies him to communicate with the masquerade. In the course of the fieldwork exercise, it was observed that women do not play active roles in the display of Ekpe.

Significantly, the boundary tree is also planted at the premises of every Ekpe shrine or lodge to identify it as such, and where its devotees meet, interact and consult their caste structure. When a particular piece of land is in contention between families or community members, the boundary tree with its leaves are used as symbols of dispute settlement. The leaves are tied to a stick and pinned at the centre of the disputed land to signify restriction of the disputing parties into the land until the conflict is resolved amicably, based on the account of a participant (Effiom, Male 68). When the boundary leaf is tied to vehicle, it indicates that the vehicle is carrying the Ekpe masquerade. When it is tied to a stick and pinned in a playing field, it indicates that there shall be Ekpe display on the said field and only initiates can be admitted. The leaves from this plant are also said to have ethnopharmaceutical value as they can be prescribed for pains, inflammation, convulsion and epilepsy (Ukwubile et al., 2023). This evidence shows the multidimensional functions of tropical leaves. The leaves have communicative codes for spatial external language production and comprehension. In the communication climate in focus, meanings of leaves are interpreted by appearance and the context of use thus connecting signifier to a wider cultural concern. This justifies the claim by Baker (2012, p. 79) that “where connotations have become neutralised, they act as conceptual maps of meaning by which people make sense of the world.” In accentuating the expressive value of leaves, the Efik generate meaning from cultural conventions.

5.3 Bahama grass (*Cynodan dactylon*)

The Efik call the Bahama grass *Nkimenañ*. It has many communicative functions in the Efik sociocultural and religious contexts. Principally, it is used to protect traditional medicine so that evil powers will not destroy the efficacy of the medicine. Whenever one sees a small shed behind the main house in Efik villages, and fresh Bahama grasses are positioned at strategic places inside the shed. The grasses are meant to protect any herbal medicine produced in the shed from destruction by other forces. They are believed to arrest any contrary power that may tend to work against the efficacy of such traditional medicine. A participant recounted that there is usually stiff competition among traditional healers in their community and one tries to outdo the other by rendering their herbal medicine ineffective through spiritual means. This is aimed to demarket such herbal medicinal products and attract potential customers to the competitor. The grasses are said to possess superior spiritual powers that can neutralise negative effect on their user’s medicine. When a vehicle breaks down on a rural road, this leaf is usually used as a caution triangle, it is placed in front and behind the vehicle to indicate that it is faulty. A participant however observed that in modern days, any type of plant or leaf can be used to perform this function. This plant is also used to impose restriction. For instance, if

a farmer places this grass on her harvested produce in the farm, it forbids anyone to steal from it. The produce can remain in the farm for a number of days without being tampered with, according to a participant (Mma Efiang, Female 50).

When there is outbreak of violent and mass protest especially by student movements, the Bahama grass or any nearby leave is used as a symbol to express solidarity with the protesters. The leaves serve as safety protocol for non-protesters and mark their support for the course of the protest. A participant (Edet, Male 58), agreed that it is the leave that mediates between the protesters and non-protesters and cause the latter to act in conformity with the former's struggle. Another social function of the Brahama grass is its use in filling potholes as a danger signal to motorist or commuters. A participant also noted that other types of grasses can also be used in modern day to indicate the presence of a bad spot on the road as a safety precaution. From the ethnosemiotic perspective, the relationship between the signifier (leave or cultural codes) and the signified (meaning) is fixed and internal.

5.4 Folk herb (*selaginella myosorus*)

This low creeping plant is known among the Efik as *Mkpatari*. It is a low trailing plant often found in a moist forest. There is a popular Efik proverb that is associated with this plant: *Mkpatari inyeneke akpan orun edi owot uko erenowo* "The folk herb does not have a tap root but kills a warrior." This proverb highlights the power and medicinal value of this plant and its leaves in the Efik sociocultural context. It is used as pad to carry a burning pot during Nnabo masquerade display. From the accounts of participants, Nnabo is one of the important war dances of the Efik people whose display involves real combat as a representation of tribal warrior identity of the Efik during the pre-colonial era. The display of this masquerade is often commemorative of the celebration of valour in historical battlespace. The performer that heralds the masquerade uses creeping snowberry to prepare a pad that carries a burning pot. The leaves symbolise resilience and strength of character and indicate the source of power of the masquerade. This plant is also believed to have some ethnomedical value in treating and managing some ailments.

There are other leaves that are used in signifying practices such as Raffia leave fibres (*Raphia*) popularly known as *ndam* among the Efik. It is used to prepare traditional commemorative shirt worn by the Efik king, Obong, during his coronation at the Ekpe lodge popularly known as *efe asabo*. The raffia regalia is a symbol of royalty with ritual religious significance. A participant (Ekpenyong, Male 72) remarked that the regalia is a vital ritual that connotes acceptance of the new king before the final coronation rite is performed in the church. Similarly, the ginger lily (*Costus afar*) known as *Mbriitem* among the Efik is used to indicate restriction into a farmland or residence. This is to show that the piece of land concerned is under dispute. The cockscomb (*Celosia Argentea*), which the Efik call *mmeme* is used in clearing the feet before visiting the river goddess. Priestesses usually use these leaves as mat while worshipping and offering food to deities. The leaves are believed to be the source of power to the priestesses, and they ensure their spiritual and physical cleansing before the deities, according to a participant (Oku, Male 70). Significantly, dracaena (*Dracena arborea*) which the Efik call *Okonon* is used to cross the door when a baby is born to prevent it from contracting tetanus from someone who has it. In the above analysis, we have seen how the interpretation of leaves becomes privilege locus for the construction of general models of signifying behaviour (Greimas & Courtes, 1982). The

vast majority of participants sees coding as a significant part of their social and cultural reality. Communicating by means of visual objects like leaves is therefore a well-structured system of symbol interpretation and comprehension. It has added layers of meaning and nuances to conveyed messages

6. Conclusion

This article has explored the roles tropical leaves play in social and cultural communicative processes among the Efik people in South-eastern Nigeria from the perspective of ethnosemiotic model of analysis. Based on arbitrary conventions, participants use leaves to translate their visual experiences into unravelling certain cultural assumptions and beliefs. Among the Efik, images of certain leaves are used to convey unspoken meaning. Leaves are found to have immense religious, social and cultural values as objects of visual communication. Spiritually, leaves are believed possess power that can facilitate communication between the living (present) and the dead (past). They can also calm the soul of a deceased from wandering after his/her demise and from disturbing the peace of the living. More broadly, leaves also have power that can overwhelm pernicious forces like witchcraft from attacking children, adults or food. Leaves are used to delineate boundaries and impose restriction of disputed land until the conflict is resolved. They also constitute essential aspect of Ekpe masquerade's visual culture. The masquerade uses leaves to salute people it is familiar with, and the leaves are said to symbolise growth and posterity. An interesting observation in the course of the study was that there was no difference in the views of research participants in the two areas in the interpretation of the communicative values of leaves as products of different codes of culture. We also noticed that there was no difference between genders, or age group in understanding the selected leaves as traditional symbolic elements. This evidence highlights the conventionality of leaves as creative communicative elements. Communication through the lens of leaves utilizes space or spatial relations to establish meaningful connections in various domains. We validated all the possible interpretations of communication by means of leaves by asking representative of the selected participants. We found that a set of interpretation choices is largely dependent of arbitrary conventions which are based on context, background information and sociocultural experiences. The communicative use of leaves is subject to the placement of code and intentionality. The study has contributed insights to contemporary visual scholarship that will increase understanding of visual culture in a rural context. It will foster deeper connections with culture and enrich our interaction with nature. Future studies may investigate botanicals as signifiers in other cultures to compare patterns and trends that may emerge.

Acknowledgements

This research was funded by TETFUND, Abuja with reference number TETFund 201-2020 (Merged) Batch 7/32. We are grateful for this funding opportunity. We also appreciate the anonymous reviewers of this article for the deep insights they contributed.

References

- Adnan, N. and Othman, N. (2012). The relationship between plats and the Malay culture. *Procedia: Social and Behavioural Sciences*, 42, 231-241.
- Ashton M (2018) *Communicating through objects: Facilitating qualitative research in design*. Oxford University Press.
- Balick, M. & Cox, P. A. (2020). *Plant. People and culture: The science of ethnobotany*. New York: Taylor and Francis.
- Barker, C. (2012) *Cultural studies*. London: Sage.
- Burgoon, J., Guerrero, L. & Floyd, K. (2016). Introduction to non-verbal communication. In Burgoon, J., Guerrero, L. & Floyd, K. (Eds.), *Non-verbal Communication* (pp. 1-25). Routledge.
- Chaachouay, N., and Zidane, L. (2021). The Symbolic Efficacy of Plants in Rituals and Socio-Religious Ceremonies in Morocco, Northwest of Africa. *Journal of Religious & Theological Information*, 21(1–2), 34–53.
- Chahal, K. (2021). *Economic importance of different classes of plants*. Krishna Publication House.
- Chandler, D. (2022). *Semiotics*. Routledge.
- Connell, B. (1994) The lower-cross languages: A prolegomena to the classification of Cross River Languages. *Journal of West African Languages*, 24(1), 3-46.
- de Saussure F (1959) *A course in general linguistics*. Philosophical Library
- Faraclas, N. (1989) The Cross River languages. In Bendor-Samuel J. (Ed.), *The Niger-Congo languages* (pp. 277-294). University Press of America.
- Feldman A (1999) The role of conversation in collaborative action research. *Education Action Research*, 7(1), 25-147.
- Felzer, B., Cronin, T., Reilly, J., Melillo, J. & Wang, X. (2007). Impacts of ozone on trees and crops. *Comptes Rendus Geoscience*, 339(11-12), 784-798.
- Gairola, S., Singh, K., & Sharma, J. (2022). Plants used for socio-magico-religious purposes by the indigenous communities of Sub-Himalayan Tract, Uttarakhand. *Ethnobotany Research and Applications*, 23, 1–19.
- Greimas A. & Courtés J. (1982) *Semiotics and language: An analytical dictionary*. Indiana University Press.
- Grouchy, P., D'Eleuterio, G., Christiansen, M. & Lipson, H. (2016). On the evolutionary origin of symbolic communication. *Scientific Reports* 6, 34615 <https://doi.org/10.1038/srep34615>.
- Haviland, W., Prins, H. & McBride, B. (2013). *Cultural anthropology: The human challenge*. Cengage Learning.
- Hoppál, M. 1988. Ethnosemiotics and semiotics of culture. In Broms, H. & Kaufmann, R. (Eds.), *Semiotics of culture* (pp.17–33). Suomalaisen Kirjallisuuden Seura.
- Johnson, J. & Weller, S. (2001) Elicitation techniques for interviewing. In Gubrium, J. & Holstein, J. (Eds.), *Handbook for interview research: Contexts and methods*. (pp. 49-63). Thousand Oaks.
- Kora, A. (2019). Leaves as dinning plates, food wraps ad food packing materials: Importance

- of renewable resource in Indian culture. *Bulletin of National Research Centre* 43:205
<https://doi.org/10.1186/s42269-019-0231-6>
- Kress, G. & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. Routledge.
- Kumar, R., Bisht, M., Shah, Z., Bisht, M. & Arya, D. (2013). Sacred plants used by locals in religious ceremonies and rituals in Western region of Kurnaun Himalaya. *International Journal of Botany Studies*, 8(3), 12-17.
- Lee, D. (2020). The role of plants in drugs and medicine. Accessed August 2, 2024.
<https://www.openaccessgovernment.org/the-role-of-plants-in-drugs-and-medicines/98286/>
- MacCannell, D. (1979) Ethnosemiotics. *Semiotica* 27(1/3), 149-172.
- Mathers, J. (2006). Plant food for human health: Research challenges. *Proceedings of the Nutritional Society*, 65(2), 198-203.
- Mensah, E. O. (2002) Writing and literacy development: A linguistic evaluation. *Global Journal of Humanities* 2(1), 51-68.
- Mensah, Eyo. (2023). The appropriation of animal names as personal names in Ibibio and Tiv onomastic traditions in Nigeria: An ethnopragmatic study. In Ndlovu, Sambulo (ed). *Personal names and naming from an anthropological-linguistic perspective*. 217- 238. Amsterdam: De Gruyter.
- Mensah, E. (2008). Efik morphology: A study of word structure in generative grammar. PhD Thesis, University of Calabar
- Mensah, E. 2015. Frog, where are you? The ethnopragmatics of Ibibio death prevention names. *Journal of African Cultural Studies* 27(2), 115-132.
- Mensah, E. O & Vivian Dzokoto, V. 2023. Melting intestines, red hearts, and scattering eyes: Exploring embodiment in the Efik feeling lexica. *Journal of African Languages and Linguistics* 44(1), 49-75.
- Nature (2018). The roots of culture. *Nature Plants* 4, 735
<https://doi.org/10.1038/s41477-018-0285-8>
- Orr, L. (1986). Intertextuality and cultural text in recent semiotics. *College English*, 48(8), 811–823.
- Parish, J. (2011) West African witchcraft, wealth and moral decay in New York City. *Ethnography*, 12(2), 247-265.
- Quiroz, D. & van Andel, T. (2018). The cultural importance of plants in Western African religions. *Economic Botany*, 72, 251-262.
- Rizal, K., Faradilla, M., Aswadi, K., Hidayat, R. & Saputra, D. (2024). Encouraging communities creativity in utilizing Betel leaf as a traditional Aceh wedding ornament. *International Review of Community Engagement*, 1(1), 1-5.
- Sari, N., Sarjani, N. & Narulita, E. (2024). The culture of packaging traditional Balinese snacks with banana leaves. *Advances in Social Science, Education and Humanities Research*, 778, 1538-1547.
- Schaal, B. (2019). Plants and people: Our shared future. *Plant, People and Planet* 14-19.
- Schiffer, M. (1999) Behavioural archaeology: Some classifications. *American Antiquity*, 64(1), 166-168.
- Shoemaker, C. (2010). Plants and human culture. *Journal of Home and Consumer Horticulture*, 1(2-3), 3-7.

- Smith, K., Moriarty, S., Kenney, K. and Barbatsis, G. (Eds). (2004) *Handbook of visual communication: Theory, method and media*. Routledge.
- Sofowora, A, Ogunbodede, E., & Onayade, A. (2013). The role and place of medicinal plants in the strategies for disease prevention. *African Journal of Traditional Complementary and Alternative Medicine*, 10(5), 210-29.
- Stano, S. (2014). Eating the other. A semiotic approach to the translation of the culinary code. PhD Thesis. Università di Torino and Università della Svizzera Italiana.
- Stasch, R. (2008). Referent-wrecking in Korowai: A New Guinea abuse register as ethnosemiotic protest. *Language in Society*, 37, 1-25.
- Ukwubile, C., Ikpefan, E., Dibal, M., Umeano, V., Menkiti, D., Kaosi, C., Ademola, S., Famurewa, C., Nettey, H., & Yerima, T. (2023). Pharmacognostic profiles, evaluation of analgesic, anti-inflammatory and anticonvulsant activities of *Newbouldia laevis* (P. Beauv.) Seem. ex Bureau leaf and root extracts in Wistar rats. *Ethnopharmacology* doi: 10.1016/j.jep.2023.116632.
- Umiker-Sebeok, J. (1977). Semiotics of culture: Great Britain and North America. *Annual Review of Anthropology* 6, 121–135.
- Weber, S. (2008). Visual images in research. In Knowles, G. J. and Cole, A. L. (Eds.), *Handbook of arts in qualitative research: Perspectives, methodologies, examples and issues*. (pp. 41-54). Sage.
- Williamson, K. & Blench, R. (2001) Niger-Congo. In Heine, B. and Nurse, D. (Eds.), *African languages: An introduction* (pp. 11-42). Cambridge University Press.