THE ONTOLOGY OF *NKWU-ELU* AND ITS RELEVANCE IN IGBO AFRICAN SOCIO-CULTURAL SOCIETY AND BEYOND

Festus C. Onuegbu, Mulumba Obiajulu & Osita Nnajiofor

Abstract

Nkwu Elu, which literarily translates 'Up-wine', is a specie of Palm wine, and most popular of the traditional palm-wine among Igbo Africans. Its popularity is not fortuitous. It is often harvested from up; hence the name Nkwu Elu – Up-wine. 'Up', in this context, means 'above the terrestrial surface'. Thus, up wine means wine that is extracted from the palm tree above the soil surface. This very wine cements a kind of vertical relationship between man and God. This relationship, even though is of unequal status, can be bridged with the instrumentality of sacred wine, which has an inherent force of a unity between Heaven and Earth, the departed and the living. It is this understanding that necessitated the thoughts of Igbo Africans in accepting as unrivaled the substance of Nkwu Elu and its inherent sacredness in rituals and ceremonies. In the context of this acceptance, this paper will be committed in x-raying the utility of palm wine, its preservability, varieties and cross cultural currents of thought. It also tends to discuss the possibility of extending the values beyond the shores of Africa. However, we recognize the phenomenon of aversion from the use of epiclesis based on the traditional beverage as the paper admits there are some dangers posed to the lives of those involved in this activity.

Introduction

Native ingredients, that is, natural objects in form of beverages, edibles, consumables of whatever form and appearance are made by Nature itself to take care of certain native demands within and around the environments in which they are found. Natural things, *'rerum natura'*, are not fortuitously found where they exist in large quantity whereas they are merely not seen in some other places. Nothing happens for nothing. There is always sufficient reason for the existence of certain things in one place instead of other places. The peculiarity of such existence in one place and the rarity of the same in other area which the element of *Nkwu Elu* aptly has shown, largely, is the preoccupation and concern in this paper. This situation has actually agitated the researchers to seek for the reasons behind such occurrence and the import of it, as it concerns exclusively the local palm-wine irrespective of its diverse nature and forms.

The ontological significance of *Nkwu Elu* (up-wine) cannot be over emphasized. Though, we accepted its possession of graded ontology, it is necessary to point out here that it is believed to have more ontological perfection than any of the local wine species. This point is accentuated by the fact that the Igbo African cannot hold any ceremony unless it is available. This fact is also corroborated by the inevitable use of palm wine in pouring libation. Its use is anchored on the belief that up-wine has more ontological potency, a kind of force, that makes it acceptable to our ancestors and our forebears. Apparently, the force inherent in our local palm-wine is not visible, yet, such invisible nature reinforces the belief in its power of spiritual transcendentalism and cultural communion. This belief in the invisible force is strengthened more by the metaphysical principle, *'a farther away a thing is from the sense the more intelligible it becomes'*.¹ The

intelligibility of *Nkwu Elu* capacitates it as possessing immense significance in Igbo ritual ceremonies. A celebrant may have provided a trailer load of assorted drinks, people may have drunk themselves to dreg, but a mere absence of palm wine, *Nkwu Elu*, automatically rapes the sanctimonious element of the occasion. To hold any ceremony without *Nkwu Elu* is like burying a person outside *Necropolis*. Every cemetery is believed to have a preternatural receptacle that facilitates the deceased passage into the underworld. In the same vein, any person who libates without *Nkwu Elu*, the belief is that such exercise ends in futility. Libation with sacred upwine, *Nkwu Elu*, must not fail to aim at a designated target. So, our traditional up-wine is a *condition-sine-qua-non* for conjuration, divination, enchantment, magic, sorcery, witchcraft and wizardry exercises because it is believed to have gotten from 'up' somewhere, and not beneath the ground the is often desecrated.

The utility of up-wine and its relevance cannot be overemphasized. In Igbo marriage rites, the presentation of palm-wine by the bride to the bridegroom makes the highest point of the ceremony. It is suggestive of groom's acceptance by the bride, a kind of ontological communion banquet that finally seals the marriage contract. Inside a keg of palm wine carried by a suitor contains all the good luck and ill luck as the case may be, lurking at the suitor's destiny. If prayer with the palm-wine is accepted by the divinities, such pacification can make them to release blessings on the parties marrying themselves. In this way, we can see how the anger of the divinities can be assuaged and pacified by simple prayers over a traditional Oblata. We cannot overlook the significance of our traditional *Anamnesis* which efficacy is exclusively resounding with the use of palm wine, the sacred up-wine. It is also necessary to state here that the sacred up-wine has no alternative or replacement, either through symbol or sign. It is either there or not. Of course, it must be there in order for the celebrant not to part with the curse that follows a gambled event.

African forebears- ancestors- most often accept no other wine pouring in their honour than the sacred palm-wine. There may be other acceptable substance used in libation, as a particular socio-cultural setting might demand, but the largely potency of palm-wine among many African societies is hugely overwhelming. Unless the tranquilizer, Nkwu-Elu, is used, the blessings that go with marriage rite may be far fetched. Pentecostals do wining rite in marriage ceremonies but they obviate from the ritual essence and philosophy behind the wining rite in marriage ceremony. They obviate from the actual ritual in marriage rite which creates a moment of re-integrating the erstwhile members of both families: inviting them to come and witness what is now going on between their children. The invitation is not just a perfunctory type; it is intended to welcome their blessings. Cutting off of the relationship with our forebears in social and religious ceremonies portends danger in our socio-cultural living. Many people know this, and they would always look for opportunities for this communion of the living and the departed to be maintained in order to avert the danger of having an uncertain future. Now, we have seen the consequence behind the aversion of the reality of the sacred up-wine in ceremonies that are very dear to us. It may be pertinent for us to underscore the importance of traditional Epiclesis over our traditional Oblata, Nkwu-Elu, in different places. Even Jesus in Canaan, Galilee, first underscored the importance of wine in ceremonies by turning water into wine just to make sure the supply of it run steady 2 (John 2:1-12). Perhaps, the taste of the wine was not far from palm-wine.

Cross Cultural Current of Nkwu Elu in Africa and Beyond

Palm wine is an alcoholic beverage made from the sap of various species of palm tree such as the Palmyra, Date palms and Coconut palms. It is also known as *Kallu* palm, Toddy or simply Tadi in North India ³. Palm-wine is common in many parts of Asia and Africa. Some types like *Burukutu* and *Pito* are distilled from either wheat, guinea corn grains, or even as a derivative from fermented wine; the particular brand called palm-wine is got straight as sap from either raffia or oil palm trees.

In the Northern part of Nigeria where savannah type of climate does not allow the growth of luxuriant trees like the raffia or palm trees, the grain- produced wines like burukutu and pito are very popular. In a masterly but little known article, "How We Drink Palm Wine", Philips Nwachukwu notes that palm-wine is very popular in the West African sub-region, known and addressed with various rib cracking names like Shekwe, , Ishienwe, Akpateshe, I for don Marry, and so on. This brand is often gotten from fermented wine or ripe plantain through some local distillerv method.⁴ He equally observed that in Eastern part of Nigeria, and especially in Igbo speaking area, palm-wine, known with many names like Tombo, Pami, Nwoke Onye Obi Ocha (Large hearted man), Uzunma (epitome of beauty), Mmiri Ara Umu Ogbenve, (breast milk for the orphan), is the first grade brand. Among the Igbo people of the South Eastern Nigeria, the word wine no matter which brand of wine being referred to, immediately translates to *mmanya*, which in its literal sense means palm-wine.⁵ The libation ritual called *Itu mmanya* precedes all traditional Igbo public and private events, including: wedding and meetings, and other gettogether. Oruche Ody, in Umunna Cultural Association, observes that libation with palm-wine is a symbol of intimacy with the ancestors and harmony with the living. The invocation with the palm-wine is a superficial symbol of imploring for an intimate spiritual grace of providential gods at events where individuals share a feeling of purity, protection and hope. During ceremonies, an elder pours a libation with the palm-wine, symbolizing the safe cyclic passage of the forebears from the spirit realm to the physical world.⁶

In Igboland, when palm-wine is served there are certain rules that must be obeyed. In any gathering, it is the youngest male or man that serves the palm-wine, which is usually drunk traditionally in either elephant tusks or cow horns for titled men. Enyioha, in *Palm Wine and Its Importance in Traditional Igbo Society*, observes that the young man serving will hold the wine container (calabash or gallon) on his left lap and supports it with his left hand, while he holds the tusk or horn-*mpi, iko,* or *okuku*- (calabash cup) in his right hand. The first one he serves is handed to the host to drink, the second goes to him, while the third goes to the eldest man in the gathering. After all the formalities, the rest of the men are served except for titled men who are served first before the others. But if the young man is to serve the palm-wine standing, he holds the base of the container with his right hand and the neck with his left hand, while the public holds out their cups for him to pour out the wine. Enyioha, in all these formalities, has reservation for woman. To this he says, thus:

This is not the case for a woman, if she is to be served the wine, the young man pours it himself and hands the cup of wine to her, who in turn receives it with both hands as mark of respect and honour. She must not drink it while standing in the gathering; she squats down or sits somewhere before drinking it 7 .

He further observes that if at any point the young man decides to shake the container on the ground before he continues serving, the first person to tap him will receive a cup of palm-wine.

The last cup of palm-wine which contains the dregs (*ugwu mmanya* or *uge nkwu*) is usually given as a mark of honor to the eldest or the host or in some cases to the young married man. Igbo man, you may infer, is actually rich in culture and tradition.

Palm wine is known in Democratic Republic of the Congo as *Nsamba, Nsafufuo* in Ghana, *Kallu* in South India, *Matango* in Cameroon, *Tuak* in North Sumatra, Indonesia, *Mnazi* in Mijikenda, Kenya, *Goribon* (Rungus) in Sabah, *Borneo* and *Tuba* in Philippines and Mexico respectively. In Philippines, *tuba* refers both to the freshly harvested sweetish sap and the one with the red lauantree tan bark colorant. In Leyte, the red *tuba* is aged for up to one to two years such that an echoing ring is made when a glass container is tapped; this type of *tuba* is called *Bahalina*. Toddy is also consumed in SriLanka and Myanmar.⁸ Production of palm-wine may have contributed to the endangered status of some palm species such as the Chilean wine palm, *Jubaen Chilensis*. On the other hand, palm-wine production by small holders and individual farmers may promote conservation as palm trees become a source of regular household income that may economically be worth more than the value of timber sold.

A.N, Chowdhury et al, note, as in Indian culture, that palm wine is more readily available in Sagar throughout the year. In his work, Cultural Context and Impact of Alcohol, he observes that it is shipped to Haldia, an industrial port, to the north on the Hooghly River, where commercial processing adds yeast to increase the alcohol content. In Gosaba, it is available only in the winter. Labourers including van pullers (who pedal flat bed tricycles transporting people and goods) and collectors of tiger prawn seedlings in the rivers, drink this in expensive tadi. A 750 ml. bottle costs Rs. 20, and it is also in half and quarter bottles. Also, country liquor, *Chullu*, or Bangla, is made in a distillery from low-grade molasses (Chitta gud), which is often used as cattle feed. Yeast is added to the molasses and fermented; the brew is then distilled in a covered pot (bhatti), then it is diluted with water to reduce the alcohol concentration to 40-50%. Chullu is sold in bottles by the glass sachets which cost Rs. 10 for 300ml. Men whose livelihood requires heavy labour (pond diggers, van pullers, and tiger prawn-seedling collectors) find it more appealing. They confirmed that drinking *Chullu* at the end of the day brings relief for body aches and pains. Some heavy drinkers take Chullu regularly, but others, especially young men and boys drink it on special occasions like festivals.⁹ Villagers can purchase *Chullu* from local distilleries (bhatikhana) from some kiosks, roadside tea stalls, shop wares, bus stations, or at other places where people gather. Code names such as "Pepsi" (associating it with popular international beverage that is now available locally) or 50-gram Muri (puffed rice, a traditional snack) are used to avoid mentioning the name *Chullu*. The packets are placed in paper bags so they look like packets of puffed rice. Retail distributors take it on bicycles to various drinking places along the river banks, in hotels, picnic areas, and other spots where men hang out.

The Dwindling Fortune of *Nkwu Elu* in Recent Times

Palm-wine drinking is an integral part of socio-cultural relaxation and living in some West African societies. The cultural essence of palm-wine among the people of South-East and South-South Nigeria dates back to pre-colonial times. As 'kola-nut' is powerful, so is the palm-wine. While the local production of palm-wine is more popular in coastal communities, the hinterland Igbo communities had and still have a direct relationship with palm-wine. Its importance is seen in traditional Igbo ceremonies like burials, marriage rites, festivals, and other customary events.

But in recent times palm-wine had witnessed a sharp decline in cultivation and consumption. However, this is not without a cause.

The economic, medicinal, and huge socio-cultural importance attached to production of palmwine in rural African society notwithstanding, it often comes adulterated. There is a danger in patronising the township palm-wine. This fear is that there is the tendency for the sellers to sell adulterated version of the drink. This may result from the doctoring of the original palm-wine with a certain kind of sweetener called 'saccharine'. This addictive, according to experts, is capable of causing health challenges that may results in, diarrhea, dysentery or runny stomach. It is even more dangerous with people suffering from diabetics. Niang, in *le Ronier dans la Region de Thies*, notes that the aversion occurred under reglious or colonial pressure within the framework of a general policy aimed at preventing people from drinking alcoholic beverages. Thus, tapping of *Borassus Aethiopium* in Africa, mainly done for wine production, has been disrupted wherever Islamic faith is dominant. He further observes that this happened in parts of Senegal where the Catholic Sereer had to leave their fields to Muslim Wolof coming from the North. Before, in the Catholic Sereer areas, some people were fully employed as tapping professionals.¹⁰

Still on religious pressure, Christians, especially born-again Christians, believe that palm-wine is an addictive and destructive drink that no sincere Christian should use at any degree. Paul Harvey aptly states:

Test show that after drinking three bottles of wine (palm wine) there is an average of 13 percent net memory loss. After taking only small quantities of alcohol derivative from palm-wine, trained typists were tested and their errors increased to 40 percent. Only one ounce of alcohol increases the time required to make a decision by nearly 10 percent; hinders muscular reaction by 17 percent; increase errors due to lack of attention by 35 percent.¹¹

Doug Batchelor, in *The Christian and Alcohol*, also, supports this born-again Christian view on the intake of palm-wine because, according to him, death usually occurs if the concentration of ethanol in the bloodstream exceeds about five percent. Even, for those who use it sparingly immediate behavioral changes, impairment of vision, and unconsciousness can occur at lower concentrations.¹² However, there is no biblical account that condemns the drinking of alcohol. Though, this unguarded and misinterpreted view of radical Pentecostal Christians about alcohol has to some extent reduced the level of consumption of palm-wine in many agitated Christian communities, it has not eroded the social and cultural utility of palm-wine. It is more pertinent to point out that the Bible, perhaps, sanctioned the drinking of palm-wine. An example of this reasoning is seen in the wedding in Canaan, where Jesus turned water into wine:

when the master of the feast had tested the water that was made wine, and did not know where it came from (but the servants who had drawn the water knew) the master of the feast called the bridegroom. And he said to him 'every man at the beginning set out the good wine, and when the guests have well drunk, then the inferior. You have kept the good wine until now (John 2:9, 10).¹³

Thus, logically, Jesus Christ, and by extension the Scripture, approves palm-wine – after all it was a wedding and every wedding has wine-rite.

Another misguided labeling about palm-wine is the attribution of it as a substance of carefree life. It is understood to represent lazy and care-free attitude, and a mild disregard for being successful. This was wrongly inferred from Unoka's vice in *Things Fall Apart*. Thus, says:

Unoka...had died ten years ago. In his days, he was lazy and improvident, and was quite incapable of thinking about tomorrow. If any money came his way, and it seldom did, he immediately bought gourds of palm wine, called rounds his neighbours and made merry.¹⁴

He always said that whenever he saw a dead man's mouth he saw the folly of not eating what one had in one's life time. He was, of course, a debtor and owed every neighbor some money, from a few cowries to quite substantial amounts. But this does not mean that palm-wine makes people lazy and unsuccessful, and that was not what Achebe intended to portray with Unoka's vice. Also, the normal ritual of tasting the wine before giving to your merry visitors may be seen as normal but it is never so. It is to douse the fear of those around in case any poisonous substance was mixed with the palm- wine called 'nsi'. This connotes lack of trust as suspicion brews among people, even among brothers. So, for fear of death, many seriously abhor palmwine and prefer to take the cocked bottles. History is replete with occasions where people were poisoned through palm-wine and several deaths recorded. This ugly situation aside, some people still prefer other bottled substance because the personality of the tappers is sometimes in doubt. Yet, this does not imply that palm-wine is poisonous: the idea is that mischievous and evilminded people find it as a convenient means of poisoning their victims because palm-wine is seen as a mark of conviviality, togetherness, friendship, and communal bond and ritualism. Understandably, this has created little and not largely noticed aversion to the drinking of palmwine especially in public but it has not, and is incapable of impairing the unquantifiable value and essence of palm-wine in our socio-cultural society.

Still on the aversions to alcohol, Chowdhury argues:

Alcoholism disrupts family life in various ways. It fuels marital conflicts and conflicts with in- . Men who require more money to drink may demand higher dowries. Men keep more of their earnings for drinking and give less for household expense. Drinking behaviour also makes them less willing to work which leads to economic distress, family conflicts and criminality women complain of. The dangers of alcohol in-take in its totality are not palatable to women. Most women complain that it turns men into beast and makes them crazy. They complain that their movement are restricted and most times make it impossible for them to walk on road at night. Drunken men, they said, leave them no space to pass, and make catcall and insult any woman they encounter. Male drinking, also, leads to domestic violence. Men drink and torture their wives mentally and physically. Promiscuity, extra marital relations, and wife beating are the direct consequence of (alcohol) palm wine abuse. The violence is often serious and sometimes fatal.¹⁵

He further confirmed an experience of a middle aged woman in the hands of her drinking husband, thus:

He is despicable and I wish that he would die! He has made my life miserable and even now he beats me up. He returns home drunk and creates a lot of commotion at night... I wish he would never return home. It hardly matters whether he lives or dies. He collects tiger pawn seedling and spends all his earnings on drinks. He does not contribute anything towards running the household.¹⁶

It is important to point out that Chowdhury's observation is personal, and far from the actual reality of the essence of drinking alcohol or palm-wine. Husband maltreatment of wife is a matter of attitude and not as a result of alcohol in-take. Many husbands who do not even drink physically maltreat and abuse their wives and, yet, there are men who take alcohol as hubby but have never assaulted their women. Thus, palm-wine does not bread violence in the family but rather the wrong attitude of people. Therefore, despite the wrongly crafted aversions to palm-wine drinking in our society today the undiluted socio-cultural utility it enjoys cannot be easily swept off.

Extending the Relevance of Nkwu Elu Beyond the Shores of Africa

In the past, and at night in the village, children and adults sat around the fire to hear story telling from a village elder while enjoying some palm-wine, grilled corn or grilled *safou*. It is drunk at celebrations, weddings, and so on. In 1969, palm-wine produced in Nigeria was estimated at roughly two (2) million metric tons.¹⁷ That is to say, trade in palm-wine provides a source of income, not only to the tappers themselves but to a wide range of market intermediaries. Palm-wine is, also, still largely produced and commercialized where it provides good opportunities of employment. Also, in many parts of Africa the oil palms surrounding large towns are regularly tapped for wine production. In South-Eastern Africa, palm-wine tapping of *Hyphaene Coriacaa* and *Phenoenne reclinate* is a labour intensive activity (high densities of small palm with low yields) providing subsistence income together with pastoralism and gathering of wild fruits. Palm-wine is, equally, seen as an element of social cultural promotion and a brotherly bond. To this, Ebun-Ojalatan William says, "1 am an advocate of palm wine, I sing palm wine music in Nigeria popularly known as gyration song. I am Kegite chief, a socio-cultural club that promotes African culture and tradition, and palm wine is our official drink".¹⁸

The above advantages can be extended beyond the shores of Africa by African intellectuals and culture-carriers through writings and exhibitions. The world is still living with the grips of writings of authors like Chinua Achebe and Amos Tutuola. Achebe mentioned 'palm-wine' in his novel, **Things Fall Apart**. It is, also, the title of a novel by Amos Tutuola, **The Palm Wine Drinkard**. The advantages of palm wine can be promoted through songs. The activities of the gyration club called *Kegites* should be encouraged on a professional way. This will go a long way to promote palm wine beyond the shores of Africa, so long as the perceived cult attachment in the club is erased. Government could promote these clubs by investing heavily to their activities by encouraging their songs and encourage membership. In the Nigerian situation, the National Orientation Agency could, through public awareness programmes and symposium, promote palm-wine, its production and consumption by Nigerians.

To make palm wine durable, brewing companies should find a way to preserve palm wine and bottle it to be at par with brewed beer brand counterpart like Star, Gulder and Hero. This will hasten its durability and its possibility of extension beyond the shores of Africa. Also the advantages and uses of palm wine should be advertised because when the use of a product is not known, abuse is inevitable. This is where brewery industries should be encouraged to see how they incorporate palm-wine in the litany of their products. It will, more or less, project palmwine to aglobal radar. To do this, the purposeful component of palm-wine should not be ignored.

Palm-wine is often infused with medicinal herbs to remedy a wide variety of physical complaints. It is a great source of vitamin B and, also, directly used in Nigerian rural communities for treating measles in children. In combination with *L. bulgaricus*, it is used commercially to produce 'yogurt'. This is known to be effective in breaking down lactose; a desirable trait for those who drink fermented wine to cure diseases. Palm-wine yeast is found capable of degrading hydrocarbons in kerosene and diesel (oil spills). Confirmatory evidence was derived from gas chromatographic analysis- yeast that uses hydrocarbons as a carbon source and energy source for growth. This suggests its potential application in oil spill clean-up as well as in single cell protein production using hydro carbon feed stocks .This will, nonetheless, appeal to the oil companies both abroad and within.

Conclusion

In summary, *Nkwu Elu*, as a kind of palm-wine, has a strong socio-cultural and economic potential beneficial to many rural African communities. Its importance cannot be overemphasised. It has come to be a universal cultural element that enriches the rural social living of people in many societies. The conviviality and social relaxation it offers to a communal living aside, *Nkwu Elu*, as a special type of Igbo palm-wine, has the potential to contribute to industrial production of local drugs and alcohol brewing. As has been shown, this kind of palm-wine is not only common to rural African societies but cuts across many continental regions with different nomenclature and usages. Understandably, in as much as *Nkwu Elu* ought to come and be consumed in its original and undiluted form, there is always the danger of adulteration and concoction. The economic fortune that go with it for the 'tappers' in their local business of it notwithstanding, the material prospect from it is on the wane. However, this its economic downward trend can be corrected to match its level of cultural good if the inherent but unsung potentials associated to it can be fully tapped. It is culture; it is economy; it is universal.

References

- 1. D.C. Elton, *Metaphysics and What Reality Is*, New York: Harcourt Press, 2000, p.126.
- 2. O.N. Ikeama, "Scriptural Reinterpretations and Faith in Today's Christianity", *Religion* and

Ethics, Vol.2, No.2, 2004, pp.43-56.

- Philip Rundel, "The Chilean Wine Palm in the Mildred", *Botanical Garden Newsletter*, Fall 2002, Vol.5, No.4, p.110.
- 4. N. Nwachukwu, "How We Drink Palm Wine" Vanguard, May 23, 2014.

- 5. Ibid.
- 6. Ody Oruche, "About the African Continent", Speech delivered at *Umunna Cultural Association*, May 16, 2008. 'Umunna Cultural Association' is association of Igbo people from Nigeria residing in Indianapolis USA which started in July 1994.
- 7. Ezinne Enyioha., "Palm Wine and Its Importance in Traditional Igbo Society", http://www.11ezinearticles.com, Retrieved on 16/01/2015.
- 8. Ibid.
- 9. M. Hogan, "Chilean Wine Palm: Judea Chilensis", in N. Stromberg (ed.) *Global Twicher*, 2008.
- 10. A.N. Chowdhury *et al*, "Cultural Context and Impact of Alcohol Use in the Sundarban Delta, West Bengal, India", *Social Science and Medicine*, Vol.63, 2006 pp.722-731.
- 11. Ibid.
- 12. M. Niang, "Le Ronier dans La Region de Thies Etide Geographique", *Note Africaines*, Vol.147, 1975, pp.77-82.
- 13. P. Harvey, in Doug Batchelor, *The Christian and Alcohol...*
- 14. Ibid.
- 15. H. Jeter, "By His Stripes", A Biblical Study on Divine Healing, Benin: Anointed Publisher, 1979, p.100.
- 16. Chinua Achebe, *Things Fall Apart*, Lagos: Academy Press Ltd, 1984, p.3.
- 17. O. Okereke, "The Traditional System of Palm Wine Production in Igboeze Local Government Area, Anambra State", *Agricultural Systems*, Vol. (9), 2001, pp. 239-253.
- 18. Ebun-Ojalaran, in H. Joy, "Palm Wine Made in Africa", *African Heritage*, A blog about African History. Retrieved on 26/01/2015.