

Glazed Tiles as Floor Finish in Nigeria

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ABSTRACT

Tile is no doubt rich in antiquity; its primordial show, came as mosaic with primary prospect in sacred floor finish before its oblivion, courtesy of, later consciousness towards wall finish in banquets, kitchens, toilets, restaurants and even bars. Today, its renaissance as floor finish is apparent in private and public architectural structures with prevalence in residential, recreational, commercial, governmental and other spaces. In Nigeria, the use of glazed tiles as floor finish became apparent, supposedly in mid-twentieth century; and has since, witnessed ever increasing demands from all sundry; a development that is nascent and has necessitated its mass production locally with pockets of firms in the country. The latter however, is a resultant response to taste cum glazed tiles affordability, whose divergent sophistication in design, colour, size and shape is believed preferred to terrazzo, carpet and floor flex tile. Accessible as glazed tile production is, in recent times; its dearth of holistic literature in Nigeria is obvious no doubt. In the light of the latter, this paper examine glazed tiles as floor finish in Nigeria, its advent, usage, production, challenge, benefit and prospect with the hope of opening further frontier in discipline specifics.

Introduction

The world, in which humans live, is immemorially in phases, significantly as a result of change; which is universally acclaimed inevitable. An assertion that is corroborated in Yoruba as; *oba mewa, igba mewa, loni ileaye, enikan kole lo ileaye gbo...* Sir Peters 1989 (ten kings, ten reigns, owns the world, no one person can exhaust exploring or exploiting the planet earth), a submission that went further to argue thus in Yoruba as;

Ile aye n yi
Ko duro d'enikankan
Oun taba se loni
Oro itan ni y'oda lola... Ayuba 1991
The planet earth is revolving,
It waits for no one person
What we do today
Will become history tomorrow.

Tile like the above Yoruba lines have also revolved across times and culture; this revolution however, varies from culture to culture and appears to have humble beginning. Its humble beginning however, may be traced to Britain's infinitesimal appearance of what may be termed stone fragments at Stonehenge; the Greco-Romans however, exponent the use of tiles otherwise known as mosaic, its later showing was in Islamic art of the ancient Middle-East with Oriental sophistication which was far ahead of her Greco-Byzantine fore runner in terms of fineness, they also had impression on northern Africa as exemplified in the 2000 years old mosaic in Apollonia, Libya; its appearance in sub-Saharan Africa is equally apparent at Ile-Ife in South western Nigeria.

Stonehenge which was built between 1900 and 1600 B.C. is British acclaimed artistic heritage and it is a conglomeration of trilithons, sarsen circle and what appears as distillation of stone fragments within its entrance [plate 1] (Hawkins, 1965: 41 and 65).

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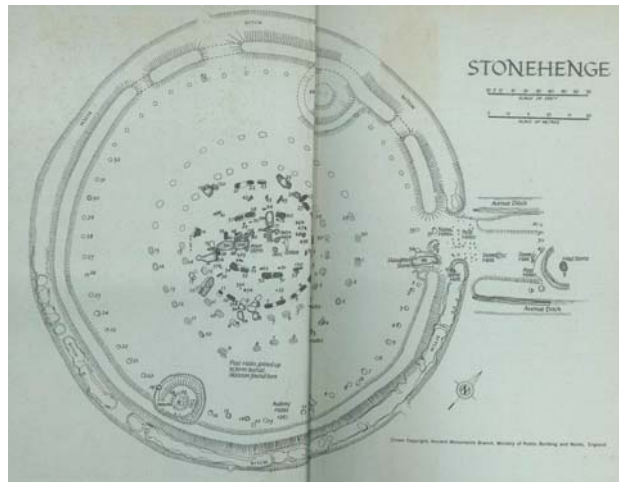


Plate 1
Illustration showing the aerial plan of Stonehenge dimensions in feet and meters(Hawkins GS 1965: b.p)

In Greco-Roman world, the examples of mosaic pebble was found in the Byzantine flooring of the church principally as a result of the spread of Christianity while the Middle-East examples are evident in Jerusalem at the Dome of the Rock, 691 AD. (Hitti, 1970: 416), this edifice was acclaimed the most sacred building of Islam after the holy places of Mecca and Medina, erected over the spot from which the Prophet is believed to have ascended to Heaven (James, 1974: 7) and the mosaic floor in the bath of the Umayyad palace of Khirbat-Al-Mafjar in Jericho. Its vast enclosure which includes not only the bath but also a palace was acclaimed stupendously decorated and executed with a strong *Sasanian* element (Gabrieli, 1968: 145). Apollonia, Libya on the other hand, housed series of enchanting and graceful ruins; one of which is the Eastern Basilica, grove in slender columns made of green and white Cipolin marble between them are trees of superb mosaic floor with images of Africa, wild animals and palm trees [plate 2] and they are still intact 2000 years after their execution (Palin, 2002: 212 and 220). In the case of the Yoruba, mosaic-pebble otherwise known as *apadi* (Akindele, 2009) was found in Ile-Ife and her conglomerating towns of Esure, Woye-Asiri, Iwo-Eleru and Owo (Kalilu, Akintonde and Ayodele, 2006: 31 and Andah and Folorunso: 19). In Ife it was evident in Obalara’s land site, Iworin grove to mention but few (Drewal, 2010: 84). The latter no doubt affirm the cross current usage of the item as floor finish in ancient religious worship which is a calculated attempt by nature justified in the theory of parallel development.

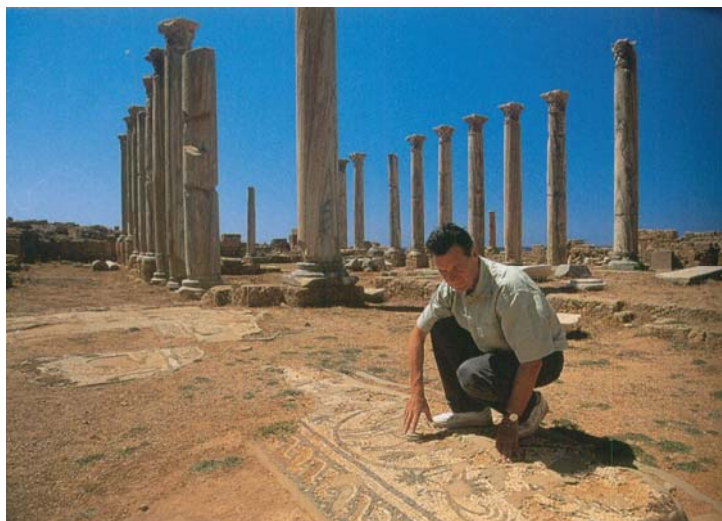


Plate 2
Palin, appreciating the remains of the ruin of 2000 year old mosaic flooring showing palm trees and wild animals at Apollonia, Libya.(Palin M, 2002: 212)

The Yoruba *Apadi* (Wakeman, 1991: 38) unlike its Occidental and Oriental articles is a broken fragment of a fired pot otherwise known as shard, often used as floor cover particularly in Yoruba traditional religious architectural landscape. Although, this shard defers from the typical contemporary tiles particularly in the Western sense of the word, its arrangement however, is an ingenious indication of indigenous orientation in paving tiles [plates 3 and 4]. Perhaps, the latter was the reason why Yoruba art historical theory is recently hinged on such archaeological remains for dating. A development observed to have started with the Archaic Era like



Plate 3

Pot shards (*Apadi*) simulating pavement
Photograph by Segun O. Abiodun, 2013



Plate 4

Drawing showing the pavement at
Obalara's Land in Ife, consisting series
of Shards often herringbone patterns
(Drewal and Schidkrout: 2010: 84-85)

her Western counterpart and defers in subsequent categories as reflected in Pre-Pavement, Late-Pavement and Post-Pavement Era (Drewal, 2010). Drewal (2010: 84-85) further observed thus;

The pavements [often] covers a rectangular area [consisting] a synthesis of rows of shards set on edge, usually in a herringbone pattern, alternating with rows of stone. This style of pavement appears to be unique to the Yoruba, appearing throughout their land. This further, reveal a glimpse of Ife [Yoruba] concepts of space, especially sacred spaces. The ground plan of sites with pavements shows a deeply engrained rectilinearity. At one end of this plan, a semicircular intrusion undoubtedly indicates the location of an altar, probably a raised earthen platform for sacred objects serving as a focal point for devotion.

The above Drewal's argument is a testimony to primordial indigenous usage of fired shard in sacred spaces, Eluyemi (1978, 30) further observed, Willett as attesting to the apparent usage of tile as floor finish in Yoruba milieu particularly in every Ife compounds.

Prominent also was Latin, the culture that dominates the material culture of the world particularly in the eighteenth, nineteenth and the early part of the twentieth century. Little wonder why the appellation tile was a derivative of Latin. *Tegula*, the Anglicized Latin word for tile, was strictly a product of fired clay often use primarily for covering roof top (Wikipedia, 2013). *Tuile* was its French appellation (Gutman, 1997: 340/606) while in Yoruba; it is identified as *apadi luwo* (Eluyemi, 1978: 30). Although, there seems to be an interchangeable link between mosaic and tile particularly as mosaic is the art of fitting fragments of rock, shell, tile, glass and ceramic to create a pattern which may be abstract or representational (Webster, 1989: 479 and Webster, 2002: 300); further affirming their oneness, that is unity in diversity. Today, tile broadly refers to hardware or lightweight materials in form of ceramic, stone, metal, glass, perlite, wood or mineral

wool used in wall, ceiling and floor finish; it further, accommodate object such as rectangular counters used in playing games. It meaning in this study cut across the various glaze type ranging from paste, lead, ash, slip, felds-pathic, salt, enamel to engobe with either transparent or matt surface effect (Akinde, 2009).

Modern Tile Usage in Nigeria: An Overview

Tiles apart from its indigenous testimony in Yoruba pavement era earlier mentioned; attendant appearance of ceramic glazed tiles in modern context were probably evident in some Nigerian cosmopolitan cities particularly Lagos, Ibadan, Kano, Onitsha and Port-Harcourt before her independence in 1960 from her British imperial master (Keay and Thomas, 1968: 149-150). Although, there is no data attesting to the actual commencement of glazed tiles in terms of usage in modern day Nigeria; it possible and logical advent in the country is therefore speculative. And as such, it is possible that its usage in Nigeria commenced immediately after Lagos became a colony of Britain in 1861 (Crowder, 1968: 47). A status that empowered her economic and commercial prowess with several influxes of goods and services making her the toast of West Africa and the fore runner of the emerging northern and southern protectorates economy. The goods no doubt include house hold utensils with ceramic wares playing a prominent role which supposedly accommodates glazed tiles for the exclusive use of the then European community and their host particular the royal heads of the settlements.

1830s to 1880s witnessed the return of African descents from Latin America, precisely of Brazil as freed Brazilian slaves to Lagos, Nigeria. In Lagos, this Brazilians otherwise known as *Aguda*, account for 3,221 which are about 9% of the entire Lagos population that stood at 37,458 while the Europeans including Britons had only 111 which is about 0.3% (Brooke, 1987: 1). Nigeria's Brazilian architecture was the legacy of these thousands of freed slaves, constituting a force to be reckoned with in their various fields. Among them are trained carpenters, cabinetmakers, masons and bricklayers (Brooke, 1987: 1); to suggest a possible presence of tillers among them, as tilling then was an integral specialty in masonry, may not be out of place. And by the next century Lagos has become a grimy metropolis of five million people, though pockets of original Brazilian houses still exist alongside local building styles and skyscrapers (Brooke, 1987: 2) with possible tilling; perhaps some of such architectural buildings where these items were use are still standing till date.

Nonetheless, the latter became pseudo-apparent after the amalgamation of the northern and southern protectorate of 1914 and the emergence of the coinage, Nigeria from Niger area (Olatunbosun, 1967: 303); and by 1940's significant impression of the material spread across the country particularly as the country anticipate and prepares for her independence, establishing porcelain plant at Ikorodu (Chigbo, 2009: 4). The periods between 1962 and 1980 witnessed several developmental planes in terms of infrastructures; the first plane commences in 1962 and was meant to end in 1968 but was interrupted by political crisis and the eventual civil war of 1966. After the war a second plane was initiated to cover the period 1970 to 1974 and was meant primarily for reconstructing those facilities destroyed or damaged during the civil war. 1975 to 1980 saw the dawn of the third plane, it was an ambitious attempt to use the oil resources for promoting rapid development in all sectors of the economy (Oyejide, 1981: 217).

Many of the tiles used in pre-independent and post-independent Nigeria, 1950 to 1970 are imported from Europe and Americas, her expenditure on ceramic wares in 1959 alone was estimated at ten billion dollars (Chigbo, 2009: 2); Europe had prominence in supply with the likes of England, Spain, Germany, France, Czechoslovakia among others while Brazil was central and southern America's major exporter. And by the 1980s, it became apparent that Asia has come to stay in the league of tile exporter into Nigeria through China (Chigbo, 2009: 4). In those early years, tilling with glaze tiles was a sole reservation of the cream de la cream and it was only popular as wall decoration or wall finish and not as floor finish; the only space were it appears as floor finish then was in swimming pools basement of hotels, sporting complexes and few private mansions; as a result of tilling its entire dimensions. The size of tiles then was strictly 145 x 145mm (14.5 x 14.5cm) while its pigments are raw hues with tinted tones, of which neutral white was the most commonly obvious and resonate till present [plate 5].



Plate 5
Typical example of a first generation tiles often in neutral white hue
Photograph by Segun O. Abiodun, 2013

Oyawole (2012), a professional mason who later specialized as a tiller concurs to the latter and opined that the influx of glaze tiles into Nigeria was before independence, though sparingly evident during this period which was not too distant from his 1966 enrollment as an apprentice in Ogbomoso. He recalled that almost immediately after his graduation in 1974, a relative of his, who was resident then, in Lagos consulted and commissioned him to fixed tile in his house in Ogbomoso. He noted that tile then was locally referred to as *tongonran tabi awo* (mirror or glass) a much modern way of addressing such ceramic products perhaps for its luster tendencies (Berry, Mason and Dietrich, 1985). Although, tiles of that period were strictly square in shape and limited in size unlike today's sophisticated varieties in size, colour, shape, texture and dimension [Plate 6 and 7].



Plate 6
Arrays of tiles showing size, shape, texture and colour in a local dealer shop at Oke Ado area, Along Ogbomoso-Ilorin Road, Ogbomoso, Nigeria
Photograph by Temitope S. Akinde, 2013



Plate 7A



Plate 7B

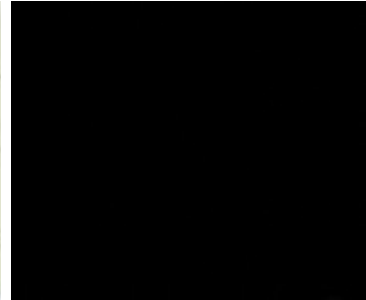


Plate 7C

Tile product of Nispo Porcelain; A: is anti-slippery tile, B: is salt and pepper tile, C: is plain tile. Courtesy of Nispo Porcelain Limited: (<http://www.nispotiles.com/>)

Oyawole (2012) observed that then tile products are majorly from Spain, Italy, England and Brazil an argument that was concurred by Olaitan (2012) and Ogundipe (2013), they both corroborate the aforesaid view, noting the inclusion of the likes of France and Germany. Oyawole further said that, in those days particularly between 1966 and 1980, the use of tiles in private architectural floor finish was not rampant rather it was mainly a prerogative of the very rich and affluent personalities of the society; then the slogan in Yoruba 'butter is not a food meant for monkeys' (*buta kise ounje obo*) was prevalently associated with the commoners. Its implication apart from the article being expensive, is its slippery nature which was assumed to possibly inflict injuries or damages on children, making it a taboo for the lower class to use, as floor finish then [Plate 8].



Plate 8A and B

Broken tiles used by low income earners in Ayedade area, off Blind Center, Ogbomoso, Nigeria. A: is the front view of the building. B: is the building zoomed front view.

Photograph by Toyin E. Akinde, 2013

During this period, carpets which are in colourful variants are the most flourished and most patronised floor finish item among the commons, mainly as a result of its availability, accessibility and affordability. This however, is not to say that, the latter were the only mediums used in floor finish; others are rugs, floor flex or luxe-floor tiles locally known as rubber tiles, terrazzo, marble and vinyl flooring [Plate 9A and B].



PLATE 9A and B

Vinyl floor, serene and beautifully rendered; the images in A and B are true evidence of its unimaginable possibilities but bear in mind its cost. Courtesy of Technical Information Manual (www.polyflor.com)

Rugs, over the years have featured in two separate capacities (Hitti, 1970: 422 and 592); it has featured primarily as a floor finish and has equally served as a secondary decoration for floor finishes in marble tiles, terrazzo and floor-flex tiles or luxe-floor tiles locally known as rubber tiles [Plate 10A and B]. Rugs are in numerous shades and shapes, it used to be the toast of the very crems of the society, among its patrons then are royalties, nobles, politicians and business gurus and later middle class. Then terrazzo and marble flooring were also patronized by the latter personalities and of the two items, terrazzo was the most used compare to marble that was more expensive, main while vinyl flooring is much more expensive, though nascent, its patronage is still restricted within the corporate circles (Polyflor, 2011); floor-flex tiles were prerogative of the middle class and also used in places where traffic is heavy, such as shopping malls. Presently, these articles are fading off, as a result of taste shift to glazed tiles [Plate 11].



Plate 10A

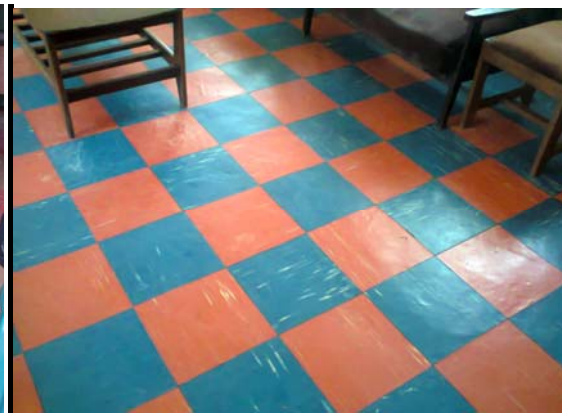


Plate 10B

Flex floor tile commonly called rubber tile, though still scantily in use, its years of primacy was in the 1980s
A: Courtesy of Nigerite limited: (http://www.nigeritelimited.com/floor_finish.php?article=22)
B: A room setting in Iwaagba Area, Ogbomoso (Photography by: Abiodun, Segun, 2013)



Plate 11

Tiles as used in paving the floor of the Redeem Christian Church of God, Jesus Palace Parish, the Zonal Headquarter of Adenike, Yoaco, Aroje and Gambari areas, situated in Inuofebi, Yoaco area, Ogbomosho, Nigeria. Photography by Toyin E. Akinde, 2013

Before the latter period, what appears to be apparent among the commons was the combination of broken tiles of multi-variance shape, colour, design, texture and size in floor finish, a practice that was then observed prevalent among the saloon owners (barbing and hair dressing, though later resonate across provision, cosmetics and mini stores) whose in the attempt to make their shops look cooperate, resolved in face lifting with broken tiles, often arranged in a highly discrete manner that will catch the fancy of many on lookers like a complete and intact tiles [plates 12]. The latter invariably increase patronage, attract more customers, translating into cash and inevitably causing investors to smile to the bank.



PLATE 12A and B

A shop paved with broken tiles in Adenike area of Ogbomosho, very much like it 1980s barbing salon patronage. A: is the front view. B: is the zoomed view. Photography by Toyin E. Akinde, 2013

In Oyawole's (2012) view, the use of cement as adhesive for tile came as an economic short cut 'improvisation'. He noted that the ideal adhesive was a special gum often in jellylike or paste-like form, a prescribed 'mordant fix' or 'nico bound' which was the industrial specification or standard. Cement improvisation as alternative to mordant was a conscious investigation primarily driven by the economics of cost. According to Oyawole (2012), his first trial at improvising with cement was at Ogbomosho in the 1970s; the experience, he said was rigorous and discouraging at first, but for persistent consultation and brain storming with Akin a friend who suggested a possible success, if the tiles are soaked in the water before use; he did and it was a success [Plate 13].



Plate 13

Tillers at work; using cement as adhesive for paving tiles in a master-bedroom at Ayedade area, off Blind Centre, Ogbomoso, Nigeria. Photography by Segun O. Abiodun, 2013

Today, virtually all tiles producing nations of the world had presence in Nigeria in terms of supplies (Stock, 2010: 52). Nigerian's market is said, to be proliferated by China's cheap glazed tiles; her tiles are adjudged inferior in some quarter. But many Nigerians beg to defer, they argue that China's saturation of their market with affordable, accessible and quality tiles, is not the same as tagging her products substandard, rather it is commercialization, they further observed that Chinese tiles were the engine oil that lubricate and liberate a new romantic culture of using tiles, both on conventional spaces like kitchen, toilet and external walls and as floor finish by the commons; a development that became apparent around mid-1990s and is still waxing stronger now (Oyawole, 2012).

Tile Manufacturing and Distributing Firms in Nigeria

The actual commencement of a deliberate and calculated indigenous production of tiles in Nigeria is not known and many of her traditions have no trace of whom the primal producer was. Nonetheless the Yoruba may be said to have what can be associated to its emergence; according to this Yoruba saying below;

Ti koko o bafo

Ki labafi se agbo idagiri

When a pot is not broken

What shall be used to prepare emergency medicine?

Although, the above lines does not have any direct bearing with the subject at hand, rather it left one with two guesses, one is the possibility of tile production being broken pots used in emergency medicine, while the other is a likelihood of conscious breaking of pots as shards exclusively for floor finish in Yorubaland. The same however, cannot be said of modern tiles productions in Nigeria as there is no mystery on where and when production commenced.

The emergence of modern tile productions and its other ceramic allies in Nigeria are nascent compare to her counterparts' overseas (Singer and Singer, 1920: 1075-1085, Hitti, 1970: 592 and Chigbo, 2009: 1). It trace started as white wares, fiber cement roofing/ceiling and as clay product in the 1950s and 1960s. The first indigenous firm to produce porcelain wares which supposedly include white glazed tiles was Ikorodu Ceramic plant, conceived in 1948 at an exhibition of ceramics produced with Nigeria's clay materials in London; an idea that later blossomed to be commissioned and re-commissioned in 1952 and 1967 as Ikorodu Ceramic Company Limited (Chigbo, 2009: 4). Unlike the Ikorodu Ceramic Company Limited the joint venture between Etex Group of Belgium and Odua Investment Company of Nigeria flourished and become Nigerite Limited in 1958, that however, was not the case with Clay Industry Nigeria Limited. The three firms no doubt are public/private initiative run by local and foreign investors; a gesture that was presumably, responsible for government sole establishment of thirteen clay industries scattered across

major cities of Nigeria in the late 1970s through Nigerian Mining Corporation (Ochigbo, 2009: 6). Although, many of the products of these clay firms are not glazed tiles, they produce terracotta tile also known as 'Red tiles'. These tiles are used on interior walls, they are mostly used as exterior wall decorations back then and many of such imprints are still evident in some of the surviving Mobil (Akinbogun, 2000: 195), Texaco and Agip petrol stations many of which have re-incorporate [Plate 14] also apparent are its recent prospects in Public schools and spaces in Lagos and Osun States respectively.



Plate 14
Yusufu Oladunni Ayinla and Company is formerly Mobil petroleum service station, its location is currently known as Yoaco area of Ogbomosho, Nigeria.
Photography by Toyin E. Akinde, 2013

The sudden turnaround in the production of glaze tiles locally may not be farfetched; as its recent demands by all sundry shoot Nigeria's rating in 2010 as the thirteenth importer of ceramics tiles in the world (Stock, 2010: 52). This paradigm shift in glazed tiles consumption brought about the establishment of its local manufacturing firms in Nigeria; they are Nispo Porcelain Limited, Agbara, Ogun state, West African Ceramics, Aja-Okuta, Kogi state among others. The latter however, commenced operations in the later years of 2000 for the purpose of manufacturing and distributing porcelain and ceramic glazed tiles primarily for Nigerians and in extension to other neighbouring West African markets like Cameroon, Togo, Ghana, Benin, Niger to mention but few. Nispo porcelain alone has assorted tile brands for different spaces. They include Anti-slippery tile, Salt and pepper tiles, Plain tiles and etcetera.

Virtually all Nispo Porcelain products can be likened to porcelain wares which are mostly dense and highly vitrified comprising of quartz sands, feldspar, kaolin and ball clay; many of such products are smooth surfaced and some slightly self-glazed, they have high resistance for abrasion, weather or stains as a result of their feldspathic glazed surface which can be transparent or matt. Anti-slippery tiles are mostly used in bathroom flooring because of its peculiar permanent anti-static function, salt and pepper is a surface description of another product of Nispo used in wall and floor finish, while Plain tiles glossy collections available in different shades and sizes often combined to give class, to various taste [plate 7]. Bhaskar, the general manager of West African Ceramic Limited, observed that his factory is the third largest glazed tile firm in Africa and its products range from royal ceramics floor tiles, royal wall tiles, VIT porcelain vitrified tiles to royal roofing tile, all of international standard, adding that their production process and products are environmentally friendly. He said this while conducting the 70 man team of Nigerian Architects round his facility during which the quality and strength test were carried out through R and D on various tiles (Suleiman, 2013: 1)

Nispo, an affiliate of the Aryaarabiany Associads, S. L. U. Benicasim (castellan) Spain [plate 15] was established in 2008 and commenced production in 2009 with Nigerian Industrial Standards (NIS) number CB-2630. Many of her tiles presumably, are stoneware which is a combination of kaolin, Cornish stone,

feldspars, mica and grog in varying percentages. These glazed floor tiles are vitreous or semi-vitreous are often larger and thicker than interior wall tiles. They are consequently used as floor finish in private and public kitchens, dairies, slaughterhouses, public buildings, balconies, terraces, porches, yards, bars, restaurants, hospitals, offices, rooms, classrooms, senate buildings, lecture theaters, mosques, churches, wall lining and etcetera with boundless windows of usage.



Plate 15

Nisipo Porcelain factory, facilities and production process

Courtesy of Nisipo Porcelain Limited: (<http://www.nisipotiles.com/?folio=7POYGN0G2>)

Conclusion: Challenges, Prospects and Benefits

Tile and mosaic in ceramics are synonymous and are often used interchangeably particularly, as their fusion is hard to divulge from each other, more so that both has to do with creation of either abstract or representational patterns. Its primal resonance as floor finish across cultures is attested in the theory of parallel development, although with varying appellations. Among the Yoruba of Nigeria, tiles were formerly called *Apadi Luwo*, it has since changed and is now associated with luster or glass (*tongonran tabi awo*). The prevalent usage of broken tile among Nigerians (lower class citizens) of the 1980s may be linked to the residual synergy of Yoruba ancient pavement herringbone pattern; today, the latter act is gradually fading off even within the commons, majorly as a result of the recent unprecedented accessibility, availability and affordability of glazed tiles in the country.

The first appearance and possible usage of glazed ceramic or vitrified tile in Nigeria was supposedly in Lagos as an imported house hold goods dating back to her British colonial experience of the mid-nineteenth century AD; a period that coincide with not only the resettlement of freed negro descent of Africa but tiles from Brazil to Lagos. Affirmatively speaking, local manufacturing of white wares and porcelain enamels dated back to 1952 (Chigbo, 2009: 4); its failure rub off negatively on several other similar establishment of government, making Nigeria not only worse for it but a perpetual consuming and importing nation of ceramic glazed tiles (Stock, 2010: 58).

A scenario that need to change, bearing in mind the size of Nigeria in terms of human resources with over 150 million peoples; it is however obvious that the numbers of local producers and distributors are still infinitesimal compare to the level of her local consumption, little wonder why Nigeria in 2010 was rated the thirteenth importing nation of ceramic glazed tiles in the world (Stock, 2010: 58). And of concern is the fact that Nigeria is not listed in the world's first thirty manufacturing countries, were Egypt, Morocco, South Africa and Algeria featured at numbers ten (10), twenty one (21), twenty five (25) and twenty nine (29) respectively (Stock, 2010: 50). The implication of the latter however, is that Nigeria needs to brace up to the above challenge, if she is to be reckoned with in the committee of ceramic producing nations particularly when the anatomy of her geology is an unimaginable reservoir of varying primary and secondary clay mines that can make her one of the first ten ceramic tile manufacturing and exporting nations of the globe.

It is therefore germane, for Nigerian government to initiate a new phase of public/private partnership were investment on the establishment of more local ceramic tile firms are actualized and of mutual benefit. This however, will not only increase foreign earnings through distribution of such products and help put food on the tables of her citizens (Chigbo, 2009: 9 and Abiodun, Akintonde and Akinde, 2013: 107); it will equally shift the economic growth indices of gross domestic product (GDP) from the usual agricultural sector to the manufacturing sector of the economy through ceramic glazed tile productions in Nigeria, such diversification will not only boost national currency and reduce external debt, it will equally enhanced her macro-economic policy (Oyejide, 2002: XV). The latter is however, substantiated in Rak Ceramics, the world acclaimed largest producer of ceramics products with an annual turnover of approximately one billion dollars (rakceramics, 2013), also is the statement credited to Baskar, who noted that over 1,000 Nigerians are on his company direct employment and over 28,000 are involved in raw material supply, marketing of products as dealers and sub-dealers (Suleiman, 2013: 1). The take then, is if a firm in the ceramic sub-sector had such a ground breaking effect on the Nigerian economy; reducing the menace of her youth joblessness, then advocacy for more of such outfits however, may not be out of place. And as such it is expedient for Nigeria to diversify her economy by creating an enabling environment for more local ceramic tile producing plants, more so that the country's production cannot cater for her own local demands needless to say the world.

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