

Colour and Architecture: An Empirical Study of a New Paradigm of Painting of Residential Buildings and Ownership in Kumasi

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Abstract

Colours have been classically used to inspire taste in architecture from antiquity. Colours provide 'joie de vivre' (joy of life). However, a cursory observation reveals a noticeable trend in Ghana where residential buildings are receiving paints and colour notations of multinational companies. This paper presents empirical research on colour through multiple methodological approaches and tactics. The research findings presented in this paper used Kumasi, the Capital of the Ashanti Region of Ghana as main case study area. The data analysis of findings revealed that about seventy-five percent of the houses painted in multinational companies' colours along major arterial roads in Kumasi were approached for advertisement purposes. In addition, the owners of the sampled houses chose to paint with a particular colour for a mark of distinction and monetary reasons. This paper concludes that the companies' objectives were adhoc and were not guided by any planned scheme as required to enhance the sensibility and aesthetic appeals through the use of colour for buildings and their *genus loci* in an urban environment. The paper recommends revisions to the current Ghana National Building Regulations of 1996 – The Legislative Instruments 1630 to recognize the importance of colour aesthetics in city environments.

Keywords: Company colour and paint, Architecture, Incentivization, Building regulations, Kumasi-Ashante

1. Introduction

A cursory observation reveals a noticeable trend in Ghana where residential buildings are receiving paints and colour notations of multilateral companies. According to Hamlin (1955), architecture is pure in form when based on good structural sense while ornamentation is pure in form when based on just and sincere spirit; for with ornament, and the idea of representation, there enters a new element which is a direct appeal of the representation to our personal imagination and our individual memories that is, the emotional effect of emotions, sensations, and associations which the forceful representation of anything beneficial or unbeneficial, produces in people. The sensation and historical as well as theoretical perspectives of colour have been recently and adequately captured by several authors including Kargon (2014), Brown (2014) and Miller (2014).

Indeed, Miller (2014) asserts that 'Johann Wolfgang von Goethe, a 19th-century Romantic playwright, poet and naturalist, was one of the first scholars to delve into such cross-disciplinary aspects of colour. In *Theory of Colours*, published in 1810, Goethe connects subjective and objective apprehensions ...and Aristotle in his *Sense and Sensibilia*, argued that visible colour resulted from mixing lightness and darkness; white and black represented the outer limits of the color spectrum and proportional mixing between them gave rise to the "plurality" of visible colours. Additionally, subsequent scholars, from Leon Battista Alberti to Leonardo da Vinci to René Descartes, proposed various ways to quantify the phenomenon of colour and that enabled Isaac Newton modernize study of colour.

Colours/paints for building evoke personal taste preferences and meanings (Hamlin, 1955; Frampton, 2001; Wilhide, 2001; Muth et al. 2013). Colour plays a very important role in architecture as an artistic production and studies on colour have received empirical interest in recent times (Elliot and Maier, 2014). Architecture can be criticized according to approved criteria of form and colour. Again, Hamlin (1955) asserted that 'a building's appeal to the senses is produced by two things only: the play of light and shades over varied surfaces and colour of the material of which it is composed'. Colour identifies; colour sings, colour is sexy and lifts up and feed human spirit and soul respectively (Wilhide, 2006). Colour exudes taste preferences and vitality of an age in architectural production. Grand country houses used colours to reflect the colours of local landscape and identity.

Colours have been classically used to inspire taste in architecture. With reference to antiquity, crimson was often assumed to give pride to a place (Wilhide, 2006). It is asserted that 'a house decorated in the grander, more opulent version of neoclassical style have traditionally relied upon bold colours and confident patterns to make statement even if that statement was born in the twenty-first century rather than being a faithful document of what came before (Miller, 2003; Richardson, 2005). Colours provide *joie de vivre* (joy of life). Colours have been pivotal in cross cultural influences of the decorative traditions, from pure classicism of the Italian renaissance to the folk, crafts and rural influences on the colonial America or Scandinavia, or the exotic conventions of Africa, Asia, India and Latin America, whose impact increased with marked faith in trade and contact from the nineteenth century (Miller, 2003; Wilhide, 2007).

Notably, the importance of colour was not lost on modernism; muted colour schemes took hold in

architecture, albeit in a minimalist approach. Colour and light play key and systematic role in aesthetics and defining spaces (Miller, 2003; Wilhide, 2007; Csurka et al. 2011; Elliot and Maier, 2014). An effective application of colour and paintings on buildings improves the solar reflectance (Chang and Chiou, 2009; Jiang et al. 2014). Chromatography guided painting of buildings and structures in the nineteenth century; for instance, Owen Jones directed the Crystal Palace designed by Joseph Paxton to be painted so that similar parts of the Crystal Palace had the same colour. Hence, the pillars were painted yellow, the joist blue and the roof trusses red, while the primary colours: red, yellow and blue were deployed in a ratio of five to three to eight based in G. Field chromatography studies in 1825 (Gössel and Leuthäuser, 2005). The uses of colour on building surfaces delights advance architectural taste preferences but obtrusive colour application on building have received criticism over time (Hamlin, 1995). Colour is sometimes applied to give new rendition to an otherwise unpalatable piece of architecture.

Nowadays, there is a new paradigm of painting and ornamentation of residential buildings in Ghana with multinational companies colour notations. Apart from this seemingly obtrusive new paradigm, it tends to affect the long standing notion that ‘Ghanaians have a strong sense of continuity through generations and duties to those following on and therefore generation feels obligated to assist the next in their housing accommodation (Tipple et al. 1998); and for that matter Ghanaian traditional houses - *abusuafe* (family house) until recently, were considered embodiments of the spiritual wellbeing of family members as well as ‘safe havens’ and therefore were not easily altered, demolished or sold irrespective of geographical location (Oppong and Brown, 2012; Tipple et al. 1994; Korboe, 1992). Following the forgoing, this paper contends that the multinational companies colour notations when used as paints on buildings apparently render the residential building impersonal. Therefore, this research seeks to better understand by finding and empirically grounding, the drivers and the patrons of the new burgeoning painting of residential building with multinational companies’ colour notations. This research endeavours to document and analyse the findings and to ascertain how widespread this new paradigm of painting and ornamentation of residential buildings in Ghana to guide policy direction for environmental sensibility and aesthetic appeals.

2. Research Methods and Profile of Study Areas

As a matter of academic currency, literature is replete with methodological perspectives on technical studies on colour mixtures and functioning as well as psychology in developed economies (Endler, 2012; Muth et al. 2013; Jiang et al. 2014; Ünver and Özcan, 2014; Xue et al. 2014). For example, Lebedkova and Panteleyeva (2013) have developed a method of selecting background colour and accents for decoration of office space to be comfortable in its colour finishing through their own experimental research and empirical dependences. Even though colour studies appear non-existent in developing country such as Ghana; this paper presents empirical research on colour through multiple methodological approaches and tactics. The social strata, positions and morphological arrangement of urban settlements in Ghana required approaches and tactics of structured questionnaire administration, focus group discussions and dialogue as well as mapping in the manner of the groundbreaking “intersectionality” research technique developed by The Santa Cruz Feminist of Color Collective (2014). Similarly, Endler (2012) used zone map transects to easily understand coarse sampling of colour pixel values derived photographically or from spectral data samples.

Intersectionality relies on ‘who, why, how and where’ to ‘retrofit memory as a practice whereby social actors read the interstices, gaps, and silences of existing historical narratives in order to, rework, and refashion older narratives to create new historical openings, political possibilities, and genealogies of resistance by tracing the intertwined roots of coalitional approach’ (The Santa Cruz Feminist of Color Collective, 2014). Again, Csurka et al (2011) have argued that research in the domain of colour is hindered by the shortage of data arising from emotional, mood, stylistic, or aesthetic labels; and available data tends to be ‘noisy’ because user preferences differ and that colour concepts are difficult to define in a consistent manner, and any data actually is often incomplete. The research findings presented in this paper used Kumasi, the Capital of the Ashanti Region of Ghana as the main case study area. With a clue from the foregoing, a cadastral town map of Kumasi was used to undertake ground physical mapping of the buildings that have been painted in multi-national companies’ colours. Buildings along two main purposively and conveniently selected arterial routes of Kumasi were targeted (Figure 1).

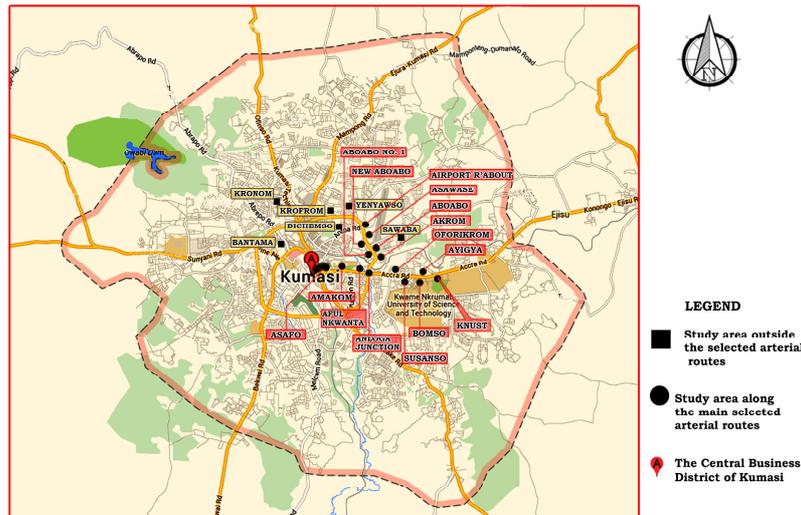


Figure 1: Map showing arterial roads and neighbourhoods in Kumasi chosen for the Study.

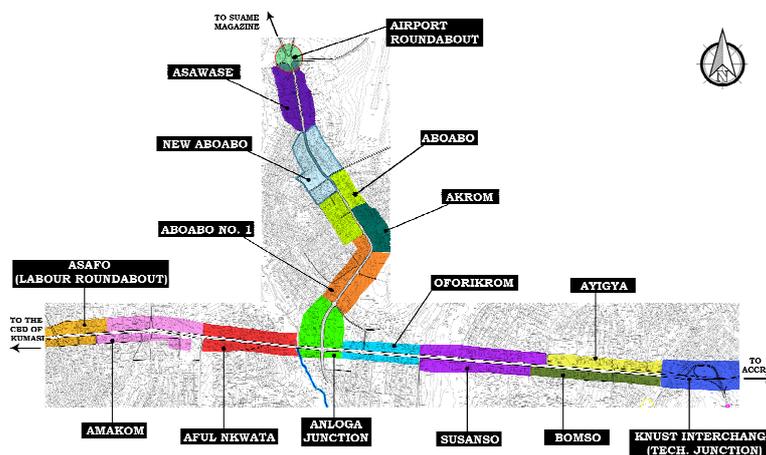


Figure 2: Map showing the main arterial routes and neighbourhoods in Kumasi chosen for the study.

Recently, convenient method has been employed to assess the impact of building materials in regions of high solar radiation (Radhi et al., 2014). The first arterial route is the KNUST/Ayigya node, stretching up to the Asafo/Labour round-about (with neighbourhoods namely: Ayigya, Bomso, Susuanso, Oforikrom, Afful-Nkwanta and Amakom, Asafo). The second arterial route is the Anloga Junction to Kumasi Airport Roundabout corridor, also known as the Eastern bypass (with neighbourhoods namely: Anloga, Aboabo, Aboabo No.1, New Aboabo, Akrom and Asawasi) (Refer to Figure 2). Google earth was used to confirm the location validity of the houses sampled. Other areas studied aside the two main arterial routes included Sawaba, Krofrom, Kronom, Bantama, Dichemso, Yennyawoso (Refer to Figure 1). With this brief orientation of the methodology employed and the profile of the study areas, the next sections present and discuss the results. Selected Regional capitals such as Accra, Tamale, and Sekondi-Takoradi were photographically explored to appreciate how widespread is the new paradigm of painting of residential buildings and ownership in Ghana.

3. Findings and Discussions

For a systematic analysis and discussion of the survey findings, it is important to recapitulate that this research seeks to better understand by finding and empirically grounding the drivers and the patrons of the new burgeoning painting of residential building with multinational companies' colour notations. In all, 37 houses were purposively explored as samples. The 37 sampled houses were located in the twenty-one different neighbourhoods in Kumasi (see, Figure 1). Thirty-one (31) representing almost eighty-four percent (83.8%) were single-storey compound houses; five (5) representing 13.5% were double-storey compound houses and one

(2.7%) was detached. The dominance of the compound house type in Kumasi or Ashanti is culturally embedded as “The Old Faithful” (Korboe, 1992; McCaskie, 2000) due its attractiveness to low-income earners for tenant occupancy. The compound presents superior advantages for yielding income to house owners in Kumasi (Nick et al, 2002; Potgieter, 1972; Mandal, 1989).). The compound house is a distinct building from other house because the compound is synonymous with kinship or uterine group or stirps (McCaskie, 2002). The Ashanti perception of the compound is intrinsically Heideggerian. Martin Heideggerian was overshadowed by building just as authority is overshadowed by everyday life. Heidegger believed a building was built according to the specifics of place and in habitants obeyed by its physical and human topography; and therefore, a building could report the ethos of individuals (Sharr, 2010).

As mentioned earlier in this paper, the theory and study of colour is absent from architectural mainstream education and discussions inferences in a more extraneous way will be made to back survey findings in this paper. The complex nature of theory of colour and its relationship with architecture is well elucidated through the introductory section of this paper. In the survey, house type, ownership, the drive or motivation and the patrons for the choice of a particular company’s colour; the type of contractual arrangement were particularly targeted.

3.1 Company Colour and Painting as a Concept Quest for Distinction

All the 37 houses sampled had varied reasons for their choices of a particular company colour as an immanent issue of user preferences as asserted by Csurka et al (2011). The study revealed four main companies (see Table 1) in the study areas as follows: MTN (8No. = 21.6%); Vodafone (8No. = 21.6%); GLO (18No. = 48.6%) and Azar (3No. = 8.1%).

Table 1: Main Multinational Companies identified for house painting

<i>Telecom Company/Network</i>	<i>Number of Houses Painted</i>	<i>Percentage (%)</i>
MTN	8	21.6
Vodafone	8	21.6
GLO	18	48.6
Azar	3	8.1
Total	37	100

Source: Authors’ Field Survey, 2013.

Apart from the Azar which is a paint producing company, MTN, Vodafone and GLO are mobile telecommunication multinational companies. The data analysis showed that Twenty-nine houses representing 78.4% were approached by the companies for advertisement purposes. Eleven houses representing about thirty percent (29.7%) of the sampled houses chose to paint with a particular colour because they wanted to ‘advertise’ the houses as against five (13.5%) who did that for monetary reasons. Notably, what was not certain was the choice to ‘advertise’ a residential building. However, the contrary of every matter of fact is arguably still possible and it can never imply a contradiction as conceived by the mind with same facility and distinctness, as if ever so conformable to reality (Hume, 1993). Therefore, a follow-up survey for in depth understanding revealed that the house owners use of the word “advertisement” meant ‘to make their houses known’ through painting with the apparent quest for distinction.

The house owners concept of using painting and colour to make their houses known inadvertently confirms the theory of distinction which states that the power of painting and colour is a ‘dynamite for classification and order of importance in architecture’ as asserted by Le Corbusier when he developed the housing at Pessac, near Bordeaux in France in 1925 (Besset, 1987). With an entirely new conception of polychromy, Le Corbusier used colour to emphasise certain masses to distinguish the houses standing beside each other (Besset, 1987). Again, the painting also appeared to enhance the *directional foci* of the houses because in Ashanti, a home is a symbolic capital/prestige and a measure of success in life (McCaskie, 2000; Bourdieu, 1984; Korboe, 1992:190) and home owners feel proud to showcase their houses as symbol of distinction.

A recent study confirms that houses have become part of the cultural capital class distinction in post-socialist Tanzania to provide new ways in which the “old middle class and new middle class” seek to distinguish themselves from each other as well as from themselves. Again, houses are understood as a pre-eminent site for the everyday reproduction of middle class distinction for reformulation of social class as constituted by economic and cultural capital (Mercer, 2014). During the follow-up survey, one house owner in response to why a particular colour was chosen explained that:

“You see my building is a short [single-storey] building and the company colour will make it different from the others.....and when the tenants want to direct someone to the house.....they can show them by using the company colour.”

Notwithstanding the foregoing, the study revealed that three houses (8.1%) chose to paint in a company’s colour because the houses were dirty. On the other hand, three houses also representing 8.1% chose

to paint in company colour because the buildings needed maintenance.

3.2 *The Process of Legality and Incentivization of House Painting*

The findings and discussion under this section are to some considerable extent heuristic to stimulate interest for further investigation because the issues are generalized for all the companies for the ethical consideration of anonymity and confidentiality¹. With regards to the legality, 29 houses (78.4%) indicated that they signed agreements with the respective companies (Table 2). Regulation 55 (1-6) of the Ghana National Building Regulations of 1996 mandates every District Assembly to ensure amongst others things that all building surfaces which require painting shall be so painted and can specify color according to zoning laws enacted for the locality by the local Planning Authority (Local Government Act, 462; The Republic of Ghana, 1996). The District Assemblies are empowered to request building owners to paint buildings to enhance the beauty and harmony of the environment. Where a building owner fails to paint a property, a District Assembly shall cause the building to be painted and all expenses incurred in the painting work charged to the property owner.

Table 2: Types of incentives received by Owners from Companies for house painting

<i>Did you sign any agreement with the company?</i>	<i>Number of Houses Painted</i>	<i>Percentage (%)</i>
Yes	29	78.4
No	5	13.5
Missing	3	8.1
Total	37	100

Source: Authors' Field Survey, 2013.

Notably, Regulation 55 (4) stipulates that "All paint work shall be executed in accordance with the manufacturer's directions". There appears no regulation that stipulates colours of paint to be used for aesthetic appeals and sensibility except Regulation 18 (1) which states that "District Planning Authority may order the boundary lines of corner plots or the corner of a building at a street corner or both to be splayed or rounded such that the sight lines of the street are not obstructed to cause danger to road users". It is worthy of note that Ghana National Building Regulations of 1996 – The Legislative Instruments 1630 is seemingly obsolete against the backdrop that buildings regulations/codes in some world economies continue to be reviewed and expanded by making allowances for both non-structural and structural products and building systems for enhanced environments; due to the detrimental impacts of urbanization on society and the environment partly resulting from the conventional use of colour on buildings (Sproula et al. 2014; Gaston, 2014; Angléa et al. 2014).

The legal process is started by a Company's branding Department. The companies seek approval and pay all the necessary fees to the Kumasi Metropolitan Assembly (KMA) as city managers. Painters are hired by the company to start painting once negotiations with property owners are concluded. Location is a factor and attracts different contracts and incentive packages. Villages are no exception but they attract lower packages/payments/contracts. Houses, containers/stores and semi-permanent objects were targeted such as large boulders; KVIPs etc along roads are prioritized and targeted. A Company's branding Department negotiates with property owners for the property to be painted. The negotiation set out the duration, amount involved and additional packages to be given to property owners including phones, company branded t-shirts and caps, etc. Amount paid ranges from GHS 500 to GHS 2000. In special cases the amount may exceed this range. These special cases include situations where after concluding the negotiations, the contract is sent to the Company's headquarters in Accra for scrutiny. Once approval has been sought from the company, the branding department signs the contract with the property owners and painting starts. The study revealed that the agreements ranged between 1 to 5 years. The study further revealed that twenty-three houses (62.2%) signed a one-year agreement whilst four houses (10.8%) signed a five-year agreement (Table 3). In spite of this, however, about 17 houses (18.9%) did not have any agreement.

Table 3: Periods of Agreements signed between by house owners and the Multinational Companies for house painting

<i>Period of Agreement</i>	<i>Number of Houses Painted</i>	<i>Percentage (%)</i>
1	23	62.2
2	2	5.4
3	1	2.7
5	4	10.8
None	7	18.9
Total	37	100

Source: Authors' Field Survey, 2013.

Even though the agreement period of one year appeared shorter, the multinational companies appeared to benefit more than the home owners. After the expiry of the agreement, the home owner cannot readily change

¹ For marketing reasons the companies requested not to be identified with quotations in this paper.

the oil paint used by the multinational companies and therefore a company's colour/paint on a building is likely to stay longer to advertise for the company. According to the multinational companies, contracts signed with property owners are between 2-4 years though Table 3 revealed that twenty-three houses (62.2%) signed a one-year agreement and two houses (5.4%) signed a two-year agreement and none for four years. However, depending on the terms of agreement, it can be for 5 years or more as some contracts are renewable until terminated by the company or property owners. Reflexively, this paper does not claim that to be a contradiction because it is likely the field survey did not capture areas where contracts signed with property owners are ranged between 2-4 years.

Table 4: Types of incentives received by Owners from Companies for house painting

Incentive	Number of Houses	Percentage (%)
Money	22	59.5
Company accessories and paraphernalia/souvenirs	2	5.4
Money and Company accessories and paraphernalia/souvenirs	6	16.2
Nothing	7	18.9
Total	37	100

Source: Authors' Field Survey, 2013.

During the period the contract is in force, property owners are not supposed to tamper with the painting done by the company or accept any branding or advertising deals from competitors. Almost invariably all the building owners were incentivized (Refer to Tables 4 and 5) through companies' accessories and paraphernalia/souvenirs such as mobile phones, umbrellas, T-Shirts and Caps. Some were given money in full and others received money in part and mobile phones to add up to the full contract sum. The companies prefer to paint only the exterior of the properties because the branding should be visible or seen by all with the intention of enhancing the cityscape of the city environments.

Table 5: Attractions for house painting in Companies' Colours

Attraction	Number of Houses	Percentage (%)
Because most houses was doing the same thing	2	5.41
Because of financial incentives	1	2.7
Because of the Company colour	2	5.41
Contract with initial company was over	5	13.51
House was dirty and needed painting	2	5.41
Monetary reasons	1	2.7
For the Telecom Networks for advertisement because of house location	23	62.16
For competitive offer from Telecom Networks	1	2.7
Total	37	100

Source: Authors' Field Survey, 2013.

Colour on buildings connotes very strong feeling as it adds to history of buildings and their locality. In Dar es Salaam, Tanzania, a market got its name from three homes of different coloured roofs that were once visible from the market (Smiley, 2009). However, the intentions of the multinational companies appeared mixed and did not evoke feeling of professionalism as elucidated in Table 5 and narratives of a multinational company as in the following:

"We [company name withheld] started painting houses in our company's colours before launching our services. We had realised that entering a new market demanded visibility and so we decided to paint houses to get that visibility needed...we needed to make people aware of our products and services. It was a way of getting some part of the market at the time of launch and using houses constitutes cheaper advertising mediums than bill boards etc.

In a subtle contradiction to the above quotation, another multinational company said:

"The colour on the buildings represents the company in the cities; it also represents the life in the Ghanaian Symbolology..... It was meant to give communities facelift and newness".

4. Conclusions and Recommendations

This research sought to document and analyse the findings and to ascertain how widespread this new paradigm of painting and ornamentation of residential buildings in Ghana to guide policy direction for development in urban environment. Literature searches reveal that colour studies appear non-existent in developing country such as Ghana. The analysis of the findings generally revealed that the companies believed they have achieved their objectives of lunching and advertising as well as beautifying the cityscape with the painting of houses in company colours. The drivers and reasons for their choice to paint a particular company's colour varied, the analysis of survey results established that the house painting is backed by some form of legality as 29 houses

(78.4%) out of the thirty-seven sampled indicated that they signed agreements with the respective house owners.

Notwithstanding, this study argues that the companies' objectives were apparently *ad hoc* and were not guided by any planned scheme to enhance the sensibility and aesthetic appeals through the use of colour for buildings and their *genus loci* in an urban environment like Kumasi. This paper observes that the companies took advantage of the 'inherent loose gaps' of the building regulations in Ghana. As observed in this paper, there appears no regulation on colour aesthetics in the building code in Ghana. Therefore, this paper recommends revisions to the current Ghana National Building Regulations of 1996 – The Legislative Instruments 1630 to recognize the importance of colour aesthetics in city environments to ensure convivial and sensible Ghanaian city environment.

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