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Embracing cosmopolitan localism for sustainable graphic design practices

Ginn Bonsu Assibey

*Cape Peninsula University of Technology
Cape Town – South Africa*

Alettia Vorster Chisin

*Cape Peninsula University of Technology
Cape Town – South Africa*

Johannes Cronje

*Cape Peninsula University of Technology
Cape Town – South Africa*

Abstract

This study advances the concept of cosmopolitan localism by Manzini (2010), which supports the approach of contextualised design solutions and not necessarily a global approach due to context differences. The research adopted an ethnographic approach for studying emerging sustainable graphic design practices with the aid of Sustainability Development Analytical Grid and Activity Theory. The results show the practice of sustainability through the aid of Ghana Food and Drugs Authority and Ghana Environmental Protection Agency who checked the content and materials of graphic design products for conformity to set standards. The by-products such as trimmed papers and used offset plates were also converted into other products by the locals and foreign companies implying that developing nations have off-the-grid solutions to their problems and must be allowed to develop their resilience through innovation without forcing them to practice other mainstreamed sustainable design approaches.

Keywords: *sustainability, ethnography, cosmopolitan localism*

Introduction

For the past decade, the practice of sustainability has been adopted by many disciplines in a bid to contribute their quota towards the agenda of sustainability development. Many international sustainability programmes have been initiated to serve as the vehicle to carry the agenda to guide institutions on the appropriate path in confronting challenges to sustainability (United Nations, 2018). Among these programmes are the Sustainable Development Goals (United Nations, 2018). Irrespective of the numerous programmes that have sprung forth from this initiative, the United Nations' Secretary-General, António Guterres advances that "without evidence of where we stand now, we cannot confidently chart our path forward in realizing the Sustainable Development Goals" (United Nations 2018, 3).

The situation is also reflected in the practice of sustainability in graphic design. Benson and Napier (2012:207) complain that after four years of further experiments in teaching sustainability to communication designers they have recognized that communication designers are zealous about their own social causes and as long as they had a steady job after graduation, learning about sustainability was not vital to their course. On a similar path, Dritz (2014) concluded in her research into gaps in the practice of sustainability in graphic design that most graphic designers were not engaged in practicing sustainability. Dritz (2014) further pinpointed that the challenges identified were lack of adequate information on sustainability and its support structures emanating from vague and narrow sustainable graphic design definitions, which made it difficult for clients to identify with the value of sustainability. The findings by Dritz (2014) and Benson and Napier (2012:207) indicate that the practice of sustainable graphic design is still at the base of the ladder of sustainability irrespective of the various sustainable strategies proposed by Ceschin and Gaziulusoy (2016:141). Could the identified challenges result from the lens through which the research data were gathered?

In searching for the various exploratory and assessment models for sustainable graphic design practices to ascertain their relationship with the various research outcomes by Dritz (2014), Benson and Napier (2012) and Benson (2007), no concrete constructs or models were found. However, some skewed strategies for environmental sustainability were discovered in other studies. The major approaches found were green design, eco-design, cradle-to-cradle and bio-mimicry (Ceschin & Gaziulusoy 2016:139). All these environmental

approaches had loopholes and with no tentacles that cover societal and economic dimensions of sustainability. The nature of the sustainable approaches justifies that sustainable graphic design has been underexplored. Due to the inadequacy of these strategies, could there be a possibility that there are social innovations brewing in a local context in the practice of sustainable graphic design that have not been explored?

These questions open a door for sustainable graphic design to be explored from the context of cosmopolitan localism. Manzini and M'Rithaa (2016:279) purport that cosmopolitan localism is ideal because it makes societies more resilient to social and economic uncertainties through a creative balance between being rooted in a locality and opening up to the global flow of ideas. Thus mainstreaming fragile models (Manzini & M'Rithaa 2016:276) present a number of challenges to local societies in the adaptation processes. It is based on these that we embarked on this research to:

1. Explore and adopt an established sustainability framework.
2. To explore emerging cosmopolitan localised sustainable graphic design practices through the lens of Activity Theory.
3. Propose a knowledge transfer concept for contextualised sustainable graphic design education.

From this introduction, the aim of this research is to use an established sustainability framework to unearth emerging sustainable graphic design practices in a developing nation; using Ghana as the context of the research.

Activity Theory: A review and a presentational tool for sustainable graphic design practices

Graphic design is an activity focused discipline thus in reviewing the various literature on graphic design practices, Activity Theory was utilised. Kuutti (1991:13) and Jonassen and Rohrer-Murphy (1999:62) substantiate that Activity Theory is a framework for analysing activities that people engage in and thus using it to explore how graphic designers engage in their daily activities is in order. Activity Theory consists of units, which are *subject, object, tools, community, rules, division of labour and outcome*, as shown in Figure 1. In Activity Theory, the object is the focus, thus all the units interrelate to produce a desired object which leads into an outcome (Stetsenko & Arieviditch 2004).

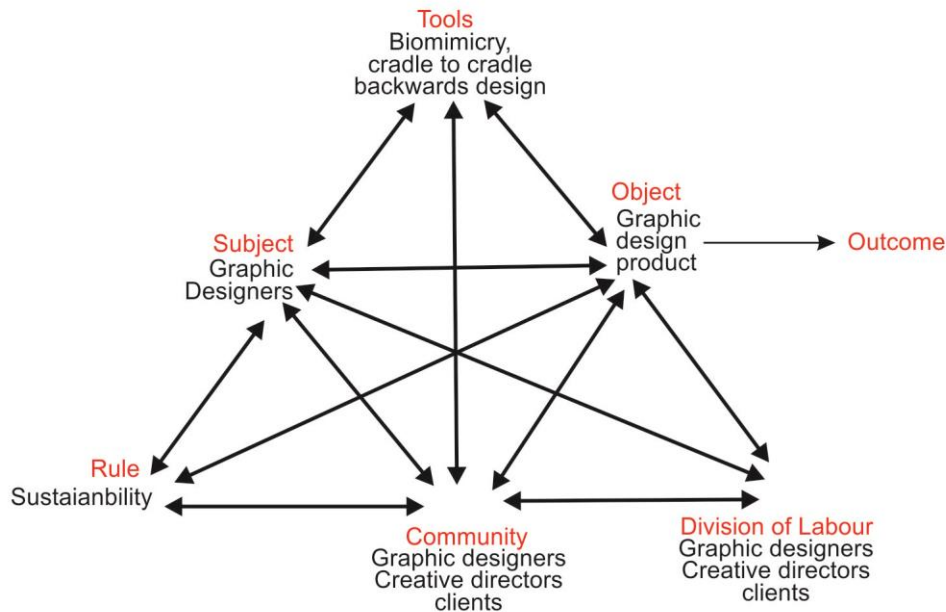


Figure 1: Sustainable graphic design from Activity Theory Perspective
(Adapted from Engeström 1987:78)

Graphic designers' mindset towards sustainability

The subject(s) in the Activity Theory is defined as the individual or group of actors engaged in an activity (Jonassen & Rohrer-Murphy, 1999:63). Graphic designers were the subjects and were responsible for executing the graphic design activities through individual or group driven motivations. In the review, it was discovered that communication designers care less about sustainability having been driven by their own private social causes resulting from a steady job after graduation (Benson & Napier, 2012:207). Dritz (2014) added that some graphic designers perceive sustainable graphic design definitions as vague, making it difficult for clients to identify with the value associated. Other graphic designers envisage sustainability as an economic threat to their profession because if they reject jobs, they might lose them to non-sustainable graphic designers (Mietkiewicz, 2016:15). Notwithstanding, there were also a number of graphic designers with sustainability mindsets and did practice it but felt unsupported (Dritz, 2014) indicating that there are still challenges with the understanding of the entire concept of sustainability in graphic design practices. The situation therefore either requires an urgent redefinition of sustainable graphic design practices or possibly a pedagogy upgrade.

The tools, rules and activity units in sustainable graphic design

This section comprises of the interaction of two units within the activity unit. Jonassen and Rohrer-Murphy (1999:63) define activity as the actions and operations that transform an object into an outcome. Thus sustainable graphic design in the context of activity is defined as the “application of sustainability principles to graphic design practice by considering the full life cycle of products and services and committing to strategies, processes, and materials that value environmental, social and economic responsibility” (Society of Graphic Designers of Canada, 2018). The strategies, processes and materials are the tools used within the activity from a sustainability perspective for transforming an object into an outcome (Engeström, 1998). The interaction among the strategies, processes and materials are governed by rules applied by a graphic designer.

There are myriad of strategies, processes and materials utilised as tools. The first reviewed was the Green Design approach, which capitalises on minimising environmental impact through redesigning products but lacks depth and promotes green consumerism (Ceschin & Gaziulusoy, 2016:139). The next approach was eco-design with a focus on using a life-cycle approach to minimise environmental decay caused by products but this approach also fuels overconsumption (Ceschin & Gaziulusoy, 2016:139). Other approach was Cradle-to-Cradle which focuses on a regenerative approach to closed-loop waste, which is also termed as “waste is equal to food”. Though Cradle-to-Cradle is accepted, it is not technically justified because of the different ways users experience products. Though the tools are skewed towards environmental sustainability, the majority of graphic designers still lack the methodologies for integrating these sustainability principles in their practices (Dritz, 2014:13). In the space of regulations instituted for the practice of sustainability in graphic design, a number of graphic design industrial bodies such as The American Institute of Graphic Arts (AIGA) and Society of Graphic Designers of Canada all have well-outlined sustainability guidelines for graphic designers who are members of the mentioned professional bodies. However, despite that, much has not been done in terms of sustainability practices in graphic design.

The community and division of labour in sustainable graphic design practices

In Activity Theory, the relation between a subject and their environment is considered through the component of a community (Hashim & Jones, 2014). In sustainable graphic design practice, the key actors within the community are the graphic designer, creative

director and clients. The core mandate of the graphic designer is to solve [visual] communication problems (Collins *et al.*, 2012) while taking into cognisance the sustainability factors with the consent of the clients but the clients still cannot connect with the economic value of sustainability.

The object and outcome units' effects on the society, economy and the environment

The influence of graphic design stretches across social, economic, cultural and environmental landscapes. One of the means to explore the effects of graphic design is to examine the life-cycle of a graphic design product. According to MacAvery (2010), a product undergoes the following life-cycle stages: design, material choice, production, distribution, consumer and end of life then finally disposal onto landfill. The design effects from a communications perspective are linked to consumption, social and cultural issues while material choice, and production and distribution are connected to environmental and economic issues.

Graphic design as a tool is manipulated by companies for their economic gains irrespective of the negative effects (Leblanc, 2010: vi). The aid to companies by graphic design manifests mostly in advertising design and package design. Packaging waste generated especially in the western world constitutes one-third of the non-industrial solid waste and as other countries strive to improve their economy, more packages will be produced and more waste will be generated (Jindal, 2010:108). Some of this waste lands up in water bodies and drainages causing toxicity and flooding (Jindal, 2010:109). It is obvious that the connection between graphic design and environmental decay may seem tough hurdle to jump over looking at the available literature.

In conclusion, Figure 2 gives a summary of the entire picture through the lens of Activity Theory on tensions that are brewing in the practice of sustainability in graphic design from the literature review. All these challenges point to the fact that research and education on sustainable graphic design practices are urgently needed. This research, therefore, tows the path of cosmopolitan localism which capitalises on the off-the-grid approaches adopted by social actors in overcoming challenges contextually that have global essence. The essence of adopting this approach is based on the fact that in spite of all the available sustainable approaches, there are still gaps in the practices thus exploring other alternatives aimed at fishing out only emerging solutions from the local level can be

advanced. It is based on this premise that the research was conducted by adopting a sustainability framework that is open, well defined and theoretically grounded vis-à-vis the Activity Theory to uncover local innovative approaches adopted by the graphic designers and the social actors within the community at Asafo in Kumasi, Ghana.

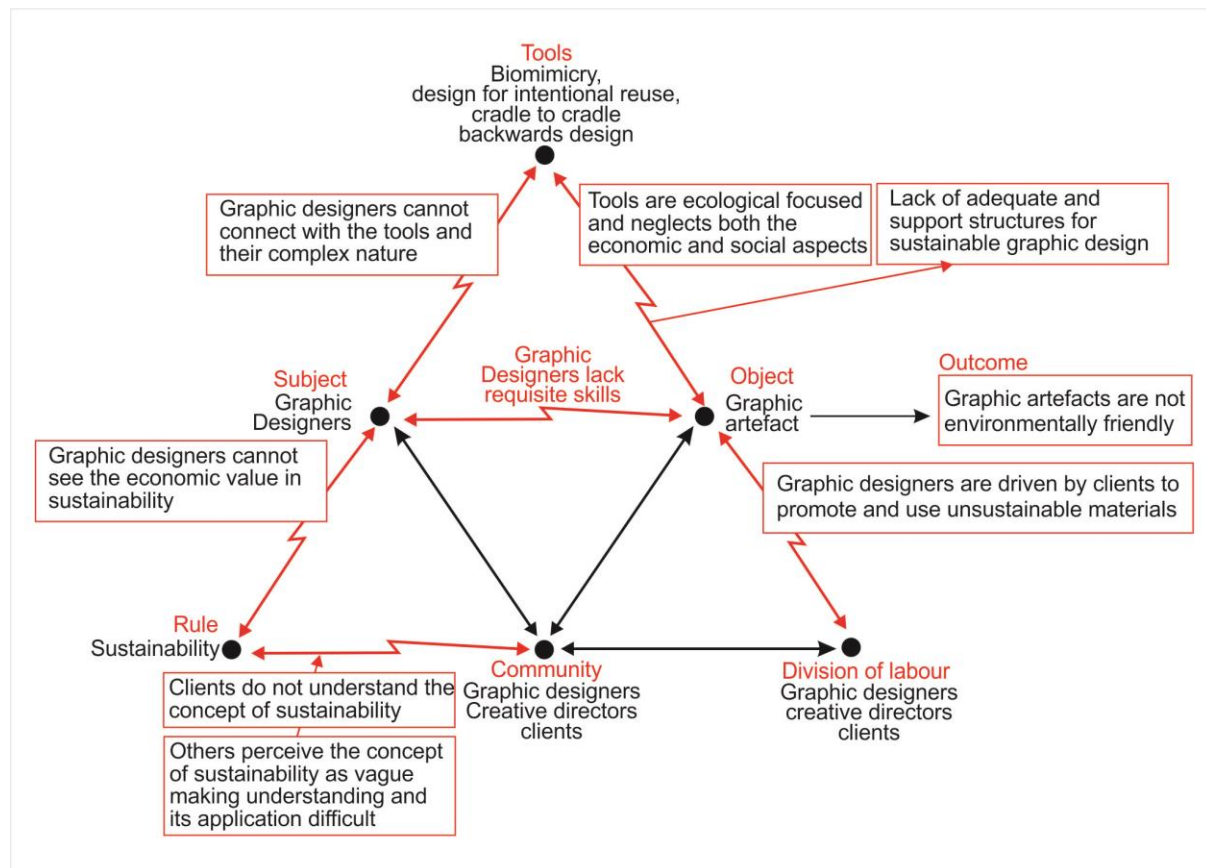


Figure 2: Challenges in sustainable graphic design practices

Theoretical Model

In using sustainability as the lens for exploring graphic design practices, the Sustainable Development Analytical Grid was adopted because it is established and tested by researchers (Villeneuve *et al.*, 2017:5) It consists of five indicators (ethical, social, ecological, economic, and governance) instead of the three known sustainability dimensions, so only the three (Economic, Environment, and Social dimensions) which were in-line with the established definition of sustainability were selected. The selected dimensions had various units which were allocated to the various units of the Activity Theory based on the purposes of the units as depicted in Figure 3, creating an amalgamation between the Activity Theory and the Sustainability Development Analytical

Grid. The ensuing new structure from the amalgamation was used for the data gathering, presentation and discussion of the findings.

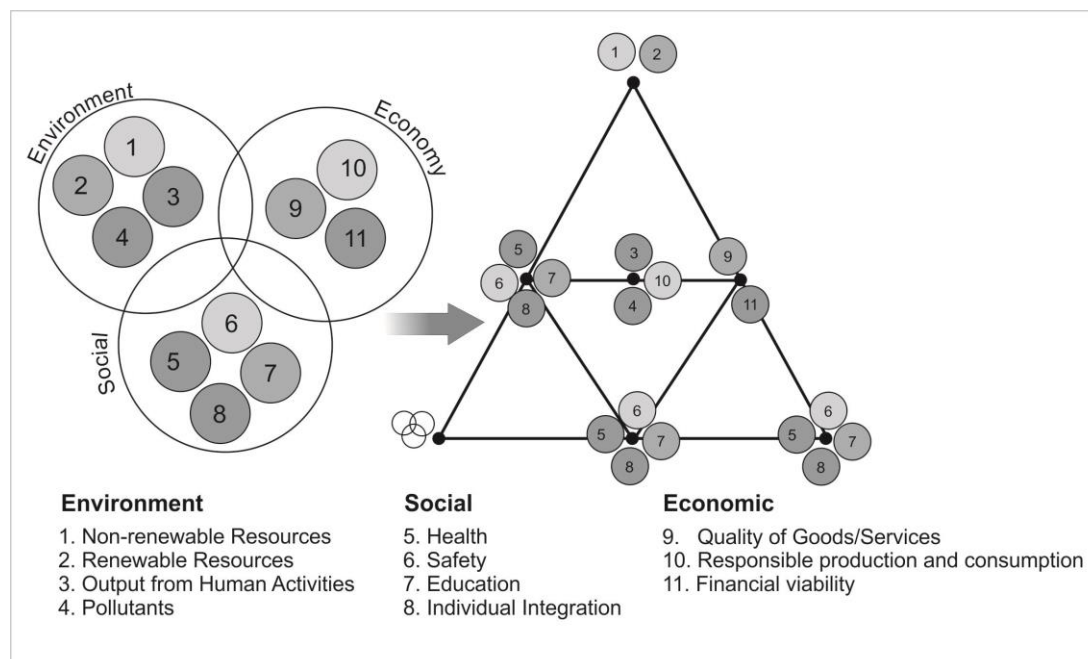


Figure 3: Amalgamation of Activity Theory and SDAG (Author's construct)

Research Method

The research design was based on the exploratory approach because it is mostly a potent tool for seeking new insights (Saunders 2009:141). A qualitative approach was also used because it utilises an inductive approach that is purposefully centred on [in-depth] describing, explaining and interpreting of collected data (Williams 2011:67). Thus it was ideal for the research based on the aim of the study. In gathering the data, the study population and site were firstly selected after which the key informants were also selected using purposive and convenient sampling techniques.

Research population, samples and sampling techniques

The research was conducted in Ghana and the exact site was Asafo, a suburb of Kumasi. Ghana was chosen because it is part of the fifty-one countries in Africa and part of the developing nations in Africa and thus shares common characteristics with the other fifty nations (Africanvault, 2016). Asafo as a suburb of Kumasi was also selected because it has become the centre for graphic design and printing firms. Asafo has approximately twenty-five (25) graphic design and above fifty (50) printing firms. For easy presentation, all the results have been tabulated in Table 1.

Table 1: Samples, sampling technique and reasons (author's construct)

Sample	Sample Size	Sampling Technique	Reason(s)
Graphic design firms	Fifteen	Purposive and Simple Random	Out of the twenty-five graphic design/press firms, fifteen were selected because they had professionally trained graphic designers. Four of these graphic design firms were selected through a simple random technique for the ethnographic study.
Graphic designers	Thirty	Purposive	The graphic designers were selected purposively using only those who availed themselves for the interview.
Creative directors	Fifteen	Purposive	All the firms visited had at least one creative director so one person was selected from the fifteen graphic design firms for this research.
Graphic design product	Thirty	Simple Random	Two graphic design products were selected from each graphic design/press firms for the document review.

Data collection methods, data gathering tools and analysis

Data was collected using the research questions as a guide through ethnographic inquiry by using unstructured or semi-structured interviews, observations, documents and visual materials reviews (Creswell, 2009:178). Table 2 shows the sub research questions and the associated data gathering tools. After the data were gathered, the audio files were transcribed verbatim and inputted into Microsoft Office Excel. The analyses were done on two levels. The first was thematic analysis and the second was Activity Theory analysis. During the thematic analysis, the raw data was coded, reduced into keywords, which were also combined into categories for easy discussions and interpretations.

Table 2: Sub research questions developed with corresponding data gathering tool (Author's construct)

Main Research Questions one	What are the challenges to sustainability in the graphic design practices of a developing nation?	
Activity theory Component	Sub-questions	Data gathering instrument(s)
Subject	Why do graphic designers engage in designing graphics products? (Motivations and interest)	Interview guide

Object	What is the nature of the communications content and the graphics designed products produced by graphic designers?	Document review
Tools	What physical materials, object, knowledge and skills do the graphic designers depend on to achieve the purpose of their activities?	Interview guide
Rule	What norms and conventions do graphic designers adhere to in their graphic design activities?	Interview guide
Activity	How do the graphic designers and multiple actors engage in their activities to produce the graphic design product?	Participant observation
Community	Who are the multiple actors who share a common graphic design product?	Interview guide
Division of labour	What are the various tasks executed by the multiple actors in the community and which actor controls the tasks?	Interview guide
Outcome	What are the effects of the graphic design product produced on the environment, society and economy?	Interview guide, Observation
Development	What are the disruptive innovations in graphic design practices in the light of sustainability?	Interview guide, Observation

Ethical Considerations

All the participants were informed about the intended purpose of the study. After which collected data from participants were treated confidentially to avoid the invasion of privacy and psychological harm. The researchers also ensured that manipulations of data collection procedures, data analysis and interpretations in favour of the researchers' personal interest were totally avoided.

Findings and discussions:

From the findings from the **subject** perspective; the graphic designers engaged in graphic design practices based on motivations and educations they received, which also determined how they carried out their design activities. The facets of the motivations were passion-driven, client-satisfaction-driven, publicity-driven, and economically-driven. On the front of education, the mode and content of their education were also major determinants of the quality of design they produced. The mode of education enveloped online learning,

peer learning via social media, on-the-job learning while that of the content was driven by graphic design trends, graphic design application usage and graphic design house-style orientation. The findings and motivations did not project into sustainability awareness but the graphic designers were aware, which were apparently based on personal concerns for the environment and society and their interaction with GFDA and GEPA. Figure 4 gives insight into the influential path of graphic designers' mindset.

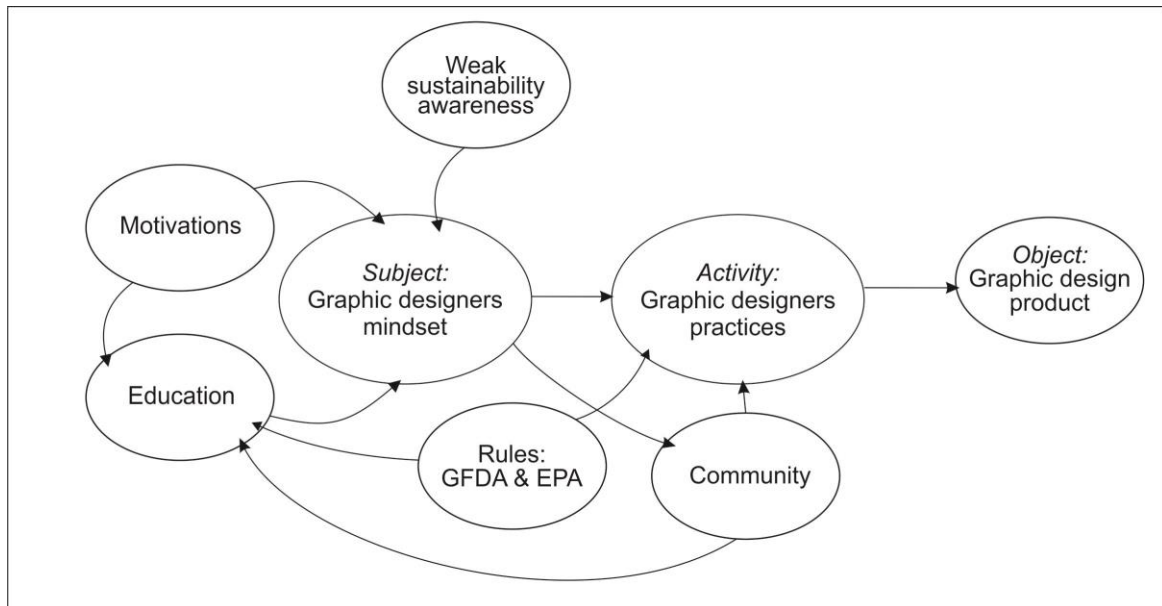


Figure 4: The influential path of graphic designers' mindset

The next unit was the **tools**. The tools consisted of physical materials and skills and knowledge for graphic design. The skills and knowledge were considered as intangible but consisted of graphic designing and design application usage skill, factors for selection of the materials and tools and factors considered in the selection of production plan. The design skills and knowledge focused on good layout and colour combinations, communicative abilities of text and images and design aesthetics with quality product finishing. The selection of materials and tools were also governed by the purpose of design, clients' preferences, cost, quality of materials and graphic design firms' standards. These were some of the responses given on skills and factors considered for the selection of materials:

- *We use approved developer, fixer and films for the imagesetter which creates the images on the films to be transferred unto a plate for lithographic printing or offset printing. Plates, inks, papers, oil for the printing machines and roller wash are some of the materials we often use. We do not use patrol like other presses because of the effect it has on the roller (Graphic designer 6).*

- *In our environment, aesthetics is a key component which clients consider but we try to go an extra mile by ensuring that the works communicate with tacit clarity while ensuring that we do not downplay the aesthetical values (Graphic designer 7).*

In the **rule** unit, the facets that were discovered were personal ethics, institutional standards which consisted of Food and Drugs Authority guidelines and Environmental Protection Agency standards. These institutional guidelines helped to ensure sanity and standards of designs for the society's safety by ensuring that the contents of the graphic design products were regulated, which was the situation on the ground in most cases.

These were some of the comments given by graphic designers:

- *I also try to avoid legal issues which are more of professional ethics, for instance when a client brings a work such as making a copy of an institution's certificate and altering the name on the certificate, I will never engage myself in it due to the legal implications associated. When the project is not a morally sound project, I also try to avoid it because my guilty conscience will not let me off the hook (Graphic designer 6).*
- *Mostly what I do is to lead the clients to achieve the Ghana Food and Drugs Authority certificate. I recently I refused to put a barcode on a client's label so I lost that job but I am ok because the safety of the society is important than the money I will gain (Graphic designer 15).*

Most of the graphic designers were jointly cooperating with Ghana Food and Drugs Authority because the guideline seven of the Ghana Food and Drugs Authority states: "*In the event of any publication of an advertisement [or packages] not approved by the Authority, the sponsor, advertising agent and the advertising media organization shall be jointly and severally liable (GHANA FDA, 2013:1-2).*" This caution from the Ghana Food and Drugs Authority connotes legal action against offenders in a three-fold responsibility approach, making the graphic designers also liable for any infringement, which has possibly led to the compliance by most graphic designers.

The next units were combined consisting of **activity, community and division of labour**. The interactions among the units happened within three spaces, which were pre-press, press and post-press. The prepress consisted of:

1. Clients' interaction with graphic designers during design briefing and the actual designing of the graphic product
2. Factors considered during designing
3. Colour separation with an imagesetter
4. Platemaking and disposal of films

In the aspect of integration among the graphic designers, creative directors and the clients, there was cohesion in their interaction towards the achievement of desired graphic design output. In graphic designers' interaction with clients and creative directors, these were some of the comments shared:

- *Designing with my clients has always been easy for me based on the fact that my designs meet my clients' choices (Graphic designer 29)*
- *Working together by sharing ideas creates an atmosphere where everyone feels needed. We believe in the fact that no one is complete in terms of designing and that everyone's comment is necessary to ensure complete attainment of a designed piece (Creative director 6).*

The press was also made of printing of the graphic design work with an offset printing machine while the post-press sorted out issues of trimming, binding, lamination or ultra-violet coating. The major waste materials from this section were spoilt printed sheets from test prints, machine error or poor and offset printing ink residue. Under the post-press, the waste was offcuts and trimmed papers which were bought for and converted into egg crates, toilet rolls and recycled papers such as newsprint. The waste chemical developers from the imagesetters were also bought and used by goldsmiths for processing their jewellery while the offset plates were bought by blacksmiths for conversion into metal cooking pots for industrial purposes. Figure 5 shows trimmed papers being carried away for conversion into other products. The findings show that waste is minimal.



Figure 5: Trimmed papers being carried away for conversion into other products

In the space of the **object** unit, the graphic design products were aesthetically nice with quality printouts having high potentials for the economic viability of the graphic design profession. These were some of the comments given that elucidate design value for economic viability:

- *The business is viable especially when your designs are nice. For instance, my design keeps my clients because some even after travelling afar even still contact me for my design service only (Graphic designer 5).*
- *We want to grow a clientele based on the quality of graphic design product. I run a system where the design becomes centre stage and then charge for design. I believe that when design becomes the centre stage but equally functional will help to sustain the business (Graphic designer 8).*

The **outcome** unit revealed several interesting findings. The first was on physical benefits from the graphic design products in the societal and economic contexts. This was followed by the effects of the by-products resulting from the graphic design practices, impacting on the sustainability of the environment, which was controlled by GEPA. Apart from GEPA serving as a regulatory body, there was a bank of collected used packages such as plastics and boxes that industries resorted to for raw materials. Most of the used flex banner materials were also repurposed for canopies, table covers at market places and also used on farms as tarpaulins for drying farm produce such as maize, cocoa and seeds. Apparently, there is nothing more useful like the waste output from graphic design products after use. The last bit encapsulates disruptive technological innovations to the graphic design profession posing challenges to traditionally oriented graphic designers and gradually pushing them out of business. However, these innovations are in line with the sustainability agenda, therefore graphic designers need to leverage the potentials in the innovation rather than seeing them as a threat to their profession. These were some of the concerns shared:

- *Now, most people or clients use WhatsApp to disseminate their information so when the design is done they are given to the clients without being printed. WhatsApp and other social media channels are used which affects the publishing or the design industry economically because we do not charge much for designing in our part of the world (Graphic designer 21).*
- *Social media has become the current trend so people prefer that because it is cheap when it comes to dissemination of information. To add, a lot of firms are now using software that has made their systems paperless. All these technologies have affected the industry (Graphic designer 16).*

Conclusion and recommendation

The findings justify the concept of cosmopolitan localism. The graphic designers were practicing sustainability at a different level spearheaded by governmental agencies. The Ghana Food and Drugs Authority and Ghana Environmental Protection Agency were responsible for controlling the content and the materials the graphic designers used for graphic design products. The graphic designers considered their health, safety and subjected themselves to all forms of education while interacting with creative directors and their clients smoothly with few hitches. The graphic design products were of the required quality and were financially sound. The output from activities and pollutants were controlled under the auspices of GEPA. Most by-products from the production activities were reused for other products minimising the environmental impact of graphic design practices.

The implication of the findings on design education is that solutions to problems mostly reside within the field of work. The concept of generating solutions from the classroom and testing them on the field might be costly and difficult to implement. Therefore design educators should probably relook at changing the approach. Instead of generating solutions from the classroom, design educators can pick emerging-already working solutions from the field, polish them and give them to students who in turn will give the polished solutions back to the society or to their respective disciplines as illustrated in Figure 6.

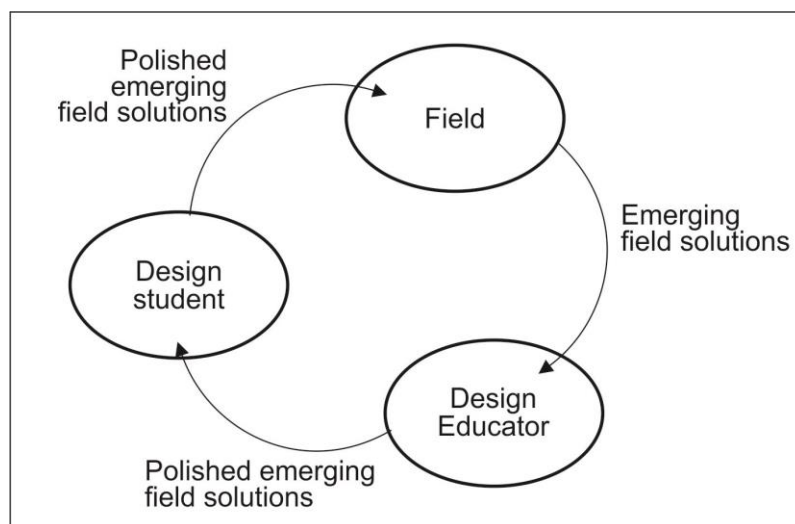


Figure 6: Emerging field solutions in transit

Embracing cosmopolitan localism for sustainable graphic design practices can indeed lead the way towards a contextualised solution in the Ghanaian graphic design industry.

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