

Experiments in design process and product development in Uganda's ceramics

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ABSTRACT

To evaluate the challenge of design, product development and practice in ceramics, in Uganda, a study of the Ugandan common designs processes and product analysis was undertaken, since 2001 to 2012, largely in Kampala and the suburbs and Western Uganda. The study consisted of both local hand and machine assisted product processes to provide a wider picture of production of what was being undertaken by the pottery strata. The pattern of the potters and their product was somewhat associated with the levels of understanding of their materials, the community they worked in, and the general clientele. Practices in ceramics continue to face challenges in terms of marketing local products given the trends of designs and the influence of pervasive global village. What it translates to is that Ugandan potters need to compete far beyond what had been the original practices some of which have lived for generations. The kinds of design processes employed by most potters tend to be erratic with minimal input in terms of design process and market survey. What most potters have tended to do is to copy whatever is being floated on the market without questioning its viability and sustainability. However, this paper argues that the consumers themselves are not enlightened enough to see the wrongs in some of the product durability and design. It seems that the costing of the product have somewhat undermined the need to develop products that are beneficial to the community for longer than the shelf life.

Keywords: Ceramic designs, drawing for ceramics, design processes, ceramic processes, pottery production, product development, market survey/research, customer care, product identity.

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INTRODUCTION

Potters in most communities in Uganda seem to be numerous and ubiquitous, but could be a matter of time that competing ware eclipse their continued local pottery production. Innovations in clays around the world and in Uganda have been carried out, some of which have been successful while others have not. The more critical element in any clay production is the level of firing. This paper sets out to provide the topographical and past settings of the central region in Uganda, a section of Eastern Africa, where the study was carried out. Given the numerous ethnic, socio-historical and physical divisions in Uganda and central region in particular, it is often difficult to assign areas with a precision. The study location of Central Uganda as a single entity from a larger sample (Uganda) aims at highlighting the importance of

localised practices in a diverse, real world situation. Situated along the Equator, central Uganda's topography is composed of undulating hills, ridges, plains and multiple drainage systems with plenty of natural mineral resources. Among the mineral resources are the vast deposits of clay like kaolin and muscovite (Katto, 2003).

Clay deposits in central Uganda are widely distributed and can sustain the local demands, given the continuous silting as a result of weathering. The landscape in central Uganda is a composition of plains, hills, plateau, swamps and lakes; natural vegetation - tropical forest, acacia shrubs, papyrus and savannah grassland; and farmed plots, supported by high rainfall distribution throughout the year (Munyuli, 2013). The vegetation provides ceramicists, potters, urban and rural populations alike,

with the fuel energy source that is sustainable through fuel-saving technologies.

There are increasing concerns about the relevance of the kinds of education, practice and industry developing communities like Uganda should pursue. The issue to be addressed by this research study is the need to transform the function, definition and negotiation of museums towards skills transfer, identities and practices among the Ugandan people. It is argued that school and institutions is where educational change can shape and restructure cultural production and use of the people. In the study of the reproduction of indigenous knowledge and economic development using pottery, it is often historically dependent on cultural, social and political-economic structures, which have shaped Uganda; a context which Uganda communities should continually symbolise.

The historical construction of pottery and its use in Uganda presents a multiple definition contingent on the traditional existence of the social and cultural domains. Traditionally, then, pottery has been associated with cultural processes and class segregation. While the old pre-1900 Uganda social setup of the various domains was structured by the economic activities, which were mostly determined by one's birth, new patterns have gradually emerged that have been substantially influenced by formal schooling throughout the Twentieth Century.

According to the recent surveys, 80% of the population is largely dependent on subsistence farming and save for the recent years that the art and craft production has been recognised as a potential source for supplementing incomes. Throughout Uganda many communities have considered creative and craft skills and intercession are carried out could generate a firm foundation to enable them increase their income. In Uganda, as in most African cultures, roles or practice in the reproduction and use of pottery have long been controlled either by local communities demand. (Figures 1 to 7) However, by mid-twentieth century, with increased interaction with Christianity, colonialism, trade and formal schooling, ownership and functions of museums have been predominantly silence or silenced.

The rapid changing in social class and segregation continue to register among producers and users alike. The original traditional pottery forms while have persisted and record of the ever increasing gap among the rich and poor / the elite and semi-literate alike. Pottery that is informed by cultural process and social segmentation continue to have less and less usage in the larger community (Table 1).

While it may be assumed that traditional pottery has not survived in communities that condone it, the work of pottery by elite potters has made some inroads, some of it so close in resemblance to the known traditional forms and even the finish. This has been largely encouraged by trained artists or those that tend to copy what the trained artists do. These forms are acquired significantly for their



Figure 1. Soup bowls – Orwabya.



Figure 2: The local Ganda Nsuwa.



Figure 3. Drinking vessel.

iconic representation rather than their imaged use. These types of forms work well as décor in homes and spaces of mostly the elite individuals in the community (Figure 8 to 12, Table 2).

The improved forms of pottery and ceramics are more favoured by the elite, even when they are still as close in



Figure 4. The local beer pot.



Figure 5. Local water pot.



Figure 6. A collection of ceremonial pots.



Figure 7. The fumigator.

Table 1. Uses and knowledge of pottery type results among different groups.

Group	Soup bowl use	Ganda Nsuwa use	Drinking vessel use	Beer pot use	Water pot use	Ceremonial pots use	Fumigator use
01 (N32)	05	01	00	00	02	00	00
02 (N24)	10	05	01	04	10	06	00
03 (N48)	32	12	04	15	40	16	01
04 (N24)	24	04	10	28	15	10	04

Key: 01: University graduates, 02: High School Leavers, 03: Primary Leavers, 04: Primary dropouts.

resemblance to the traditional forms. This fits in well as pottery is known to be one of the oldest arts of mankind (Barley, 1994). Over the whole African continent, indigenous production is enormous. However, in Uganda pottery is seen dramatically endangered by being displaced by modern vessels of aluminum, enamelware, plastic or more informal containers from western-style industrial packaging (Kwesiga, 2005). Uganda's pottery implies beauty, elegance and ingenuity with an aim of gaining wider appreciation from the local population and the world over. The artists have embraced the fact that

clay is the one of the most enduring materials and that the contribution of pottery to our general knowledge of the past is second to none. The ceramicists' continue to represent glamorous and artistic pottery forms in the natural colours: – black, white and brown, a result of their mastery to use local technologies which strongly reinterprets the role of historical pottery of the region.

The more specialized class isolated forms like milk vessels tend to have less attraction among the less literate since they don't have a direct use and meaning derived from them. They are also not in common



Figure 8. Forms inspired by local pottery.



Figure 9. Containers influenced by local pot.



Figure 10. Improved water pot.



Figure 11. Milk pot and fumigator lookalike.



Figure 12. Imitation of drinking vessel.

possession by the larger group if it were not for their elegant form and style. The ownership of cows remain an

iconic symbol for the rich, thus the elite see it as part of a celebrated achievement in terms of possession of the forms. There seems to be concrete relational patterns that have developed between formal education and production practices, which include formal and informal contact, economic links (Mair, 1934), institutional relationships and the status accorded to indigenous practices (pottery production and use).

In addition, there is the issue of the societal functions, formal education and external inspiration (north) performed in relation to ceramic production and use. This calls for the need to access the type of relationship that emerged, by asking certain, fundamental questions (Kwesiga, 2013). What factors influenced the relationship and accounted for the process of ceramic innovations? Is there a balance between the stability and change in ceramic production and use, or is it a situation of primacy and subordination? It is important to examine the impact the links thus established have had on the internal workings of those involved; the qualitative or evaluative aspects of the changes.

Table 2. Possible use and familiarity of improved pottery type results among different groups.

Group	Forms inspired by local pottery	Containers influenced by local pot	Improved water pot	Milk pot and fumigator lookalike	Imitation of drinking vessel
01 (N32)	30	24	32	20	26
02 (N24)	15	11	20	12	16
03 (N48)	24	18	24	06	40
04 (N24)	12	02	10	00	04

Key: 01: University graduates, 02: High School Leavers, 03: Primary Leavers, 04: Primary dropouts.



Figure 13. A local potter digging and storing her clay in wet form using a hoe and storing clay in banana stems to keep it moist.

Table 3. Clay types and the use results (N = 56).

Type of clay	Number of potter	% using the kind of clay	Av distance (km) from the nearest source	% of potters with clay equipment
Ball clay	54	96.4	1.5	12.1
Earthenware	48	85.7	2	26.6
Muscovite	12	21.4	20	48.2
Kaolin	4	7.1	60	69.4

Types of clays used

Most of the easily available clays in Uganda have been formed by sedimentary processes. Since various clays offer different challenges to potters and learners alike, a record of the diverse sites were identified and examined. While this kind of caution ensures quality control and research data, it is rarely used by most of the local potters in Uganda (south).

Dry clay is easier to process. The wet usage of most of the clays by local potters (Figure 13) has somehow compromised the idea of having a quality material for production of quality pottery. Most pottery products in Uganda may not attract a ready market beyond the local use. This has a kind of influence in the way potters will survive in the wider market given that consumers in Uganda are increasingly appreciating the quality of some of the imported (north) ceramics products (Table 3).

The potter's wheel was the most sought after equipment by most formally educated potters. A range of locally fabricated potters' wheel mostly employing the manual technologies (treadle and kick wheel) were the kinds that the formally trained potters favoured which the less literate preferred to use handmade methods.

METHODOLOGY

This article presents the results of a research effort that explored innovations that involve the use of more workable clays, forms and ideas. The research in addition considers an alternative production and ceramic usages. The specific objectives were to define the stability and emerging ceramic uses, appraise the earlier forms of pottery and ceramics, and suggest the emergent new ideas and clays. To achieve the aforesaid objectives the study drew on LeCompte and Schensul (1999), model where the use of participant observation and various forms of face-to-face, in-depth interviewing as principal forms of data collection:

(i) Participatory and site visits. The data essential during the participation and site examination was (a) the existence and production of the ceramic forms; (b) the ceramic forms in use; (c) the kind of users and consumers of ceramic forms; (d) the corporeal distribution; and (e) the visual research collection.

(ii) Examination of the facts obtainable about the ceramics innovations.

(iii) Investigating to determine the types of clays used in the production.

The investigation on the production and use was limited to purposively selected ceramicists and users that were spread in both rural and urban settings.

FINDINGS

The following sections are synopsis and a summary of the findings of the study.

Basic ceramics/pottery equipment and materials

From the study survey, the following equipment and materials were identified:

Potters' wheel

Use of potter's wheel was the most sought after equipment by most formally educated potters (Figure 14). There were a range of locally fabricated potters' wheel mostly employing the manual technologies (treadle and kick wheel). These tended to be inexpensive and easy to repair. Some of the potter's wheel designs were an imitation of the rather expensive imported wheels in established institutions. There seems to be no equivalent of locally made forming equipment in Uganda.

Kilns and furnaces

Kilns and furnaces for firing ceramics are some of the Ugandan potters' nightmare. Not only do they require specific clay materials (fire bricks) the construction technology is still a preserve of a few technical experts. The most common design is one that uses either wood or oil (used) as fuel. Attaining the right temperature for the particular clay body using local firing methods is very hard to comply. Given the increased concerns about deforestation, the former may not be sustainable in Uganda. The few electric kilns available to potters are very expensive to run though they give better and reliable results (Figure 15).

Ball mills

Ball mills help to reduce the amounts of wastage and give fine clay that is desirable to most elite potter (Figure 5).



Figure 14. An Improved potter's wheel.



Figure 15. Locally constructed bottle updraft kiln.

However, local (traditional) potters do not employ this method since they work their clay direct from the deposits in it wet form. Ball milling is usually possible with dried materials.

Pug mills

Pug mills are meant to cater for large establishment where a lot of clay materials are required. The ones available in Uganda are mostly manual and locally fabricated. The alternative to pug milling clay is using manual labour (the hand).

Most of the equipment above have been introduced to Uganda as a result of the contact between the north (West) and south (Uganda). Not only does the equipment dictate what potters' in Uganda produce but it also determines the ultimate use of the products.

Types of clay bodies

There is a link between the types of clays the location of the potters and the demand for the various items. But the power of choice of material lies in the hands of potters. The decisions are usually based on the location of the nearest materials.

Ball clays

These seem to be the most commonly used clays both by formally and non-formally trained potters. This is flexible clay that gives results quickly without much process.

Kaolin and muscovite

These are primary clays and a more pure in their existence. These clays offer a range of recipes for high firing clays and a rarely used by traditional potters. They are difficult to form using traditional means.

DISCUSSION

For a sustained production of ceramic forms to be maintained, it requires that there are willing consumers and users of the forms. The kinds of forms to be consumed are directly related to the level of understanding of such forms. The levels of understanding of ceramic form use, the study can reveal are related to the proximity of the local pottery user to the local settlement, the social position and cultural groundings.

The use of ceramic production equipment indeed has a direct link to the kinds training the ceramicist has undergone.

Potters' wheel

A potter's wheel can be used by any potter, regardless of the academic background. However being able to understand the consumer perceptions and traits are likely to point the levels of education of the producer. The type of surface treatment is also likely to follow the kind of training one has been exposed to as evident in Table 1.

Kilns and furnaces

Local potters have had a tradition of using open bone fire to harden their wares. These methods may not give the right firing range of wares and use relatively less fuel and take a relatively short time. Their products may not withstand the wear and tear compared to the ones fired in commercial kilns or furnaces. A few potters have

developed their own types of furnaces with one being a dug out from an ant hill. Here the temperatures are easily controlled and there is uniformity in the final fired products. The products are also more resistant to wear and tear.

Ball mills

Ball mills were introduced in Uganda in the 20th century and their use is limited to well-established institutions and small scale producers. While the former are imported, the latter are fabricated by technical experts who understand the milling technology. While the milling technology is relatively simple, it requires a motor and power source. Hand operated mills are cumbersome to operate since the time of milling can take more than ten hours non-stop.

Types of clay bodies

The type of clay body determines the type of ceramics – earthenware, stoneware and porcelain are some of the widely known bodies. In Uganda, the largely used type is the earthenware. It requires less labour and takes shorter time to mature. However, the other remaining types are known for producing fine and quality products.

Ball clays

Ball clays are the most widely used types in Uganda. They have one shortcoming of containing more impurities since they are formed by natural forces like erosion and abrasion. They are likely to form a good distance from their mother rock. The more reddish they appear, the more natural iron oxide composition they possess. While iron is a good flux, it does not withstand high temperatures forcing products of clay with excessive iron to vitrify at lower temperatures. These ball clays are very easy to handle since they are highly plastic.

Kaolin and muscovite

Owing to nature as primary clays, they tend to contain less impurities and fire white or buff depending on their mother rock. While muscovite is the result of rock disintegration, it usually settles in layers and is more workable than Kaolin. To strengthen the ball capabilities, quantities of kaolin and or muscovite can be added giving the ball stronger qualities and high firing range.

CONCLUSION AND RECOMMENDATIONS

It can be concluded that formal education continues to

determine the course and nature of local Ugandan ceramics/pottery production and use (Figures 1 and 2). While changes in Uganda socio-cultural domains have occurred during the twentieth century, the production and use of local pottery skills remain obscured by the educational institutions that are themselves the products of the same historic and socio-cultural antecedents.

A number of local pottery items are being produced and used. While the production borrowed from elsewhere has risen in terms of machinery and firing technologies, a large number of products still bear the hands of the local traditional techniques. Some of the practices have been informed and seen a combination of local and international appeal.

The research presented here has had economic, technical and social effects among the communities and potters who formed the project. For example, many participants have increased their productivity and income by applying the technology they acquired from training courses at the various workshops supported by the AICAD (African Institute for Capacity Development)

For every community of people to prosper meaningfully, there is a need to relate to the past activity especially the kind that had persisted over a long period of time. Local pottery in most communities in Uganda had existed that some of the local philosophies attest to it. It is on this basis that we recommend that developments and changes in pottery practice should evaluate and consider some of the important aspects such material culture like pottery and its traces. While new meanings emerge, there is need to respect and represent our current thinking in our history.

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