

EXPLORING MFENSI CLAY FOR MAKING SOUVENIRS IN GHANA

Nti Frank Paul Mathews^{1*}, Rudolf Steiner², Ampah Clement Frederick³,
Owusu Panin Kwame Baah⁴, Daitey William⁵

Kwame Nkrumah University of Science and Technology, Ghana^{1,2,3}

AsanSka University College of Design and Technology, Ghana^{4,5}

*Email Correspondence: ntifrankpaulmathews@gmail.com

Abstract

The purpose of the research was to use Mfensi clay in the production of souvenirs for artistic, cultural and economic potentials in Ghana. The problem was with several local pottery centers in Ashanti Region like Pankrono, Afari and Mfensi, none of their products has been seen as souvenirs or being sold on the tourist market. The study sought in producing souvenirs from Mfensi Clay from selected designs from their characteristics. This study used studio-based research method by employing triangulated data collection tools of observation, interviews and photographs to analyse the data. The results indicated that Mfensi clay can be used for the production of souvenirs in diverse ways and help preserve the craft for future generations. The study recommended teaching local potters how to creatively create souvenirs from Mfensi beyond their functional objectives, stakeholders like the Kumasi Cultural Center and Ministry of Tourism and Culture should offer workshop programs at the various pottery settlements or centres to develop apprenticeships.

Keywords: mfensi clay, pottery, potter's wheel, souvenir, tourist market.

INTRODUCTION

A souvenir can be any object that can be collected or purchased and transported home by travellers as a memento of visit (Litrell et al., 1993). According to Wilkins (2011), souvenirs items include works mass-produced such as Clothing; T- Shirt and Hat Collectables; Poster cards, refrigerator magnets, key chains, pins etc. Souvenirs are art objects produced in different places in some cases telling stories of the history of the people and their culture. Some are also made to mark events of the times like world cup matches, festivals and situation that requires record keeping and to be celebrated (Potts, 2018).

Several materials have been used in the production of souvenirs in different places across the world. These include metals, stones, wood, leather and many divers' materials from different locations and cultures. In Ghana some souvenirs available include T shirts, pens, key holders, ceramic cups, wood carvings just to mention a few. Among the numerous clay deposits in Ghana and clay products made from these clay sites, very few can be mentioned as souvenirs. A typical example is the Sirigu Pottery of the Northern region of Ghana. With several local pottery centres in Ashanti like Pankrono, Afari and Mfensi, none of their products has been seen as a souvenirs or being sold on the tourist market. This is so because the local potters do not have the understanding of producing souvenirs from their traditional forms as artefacts for both local and international consumption. The exploration of Mfensi clay as a material for making souvenirs delves into the rich cultural heritage and artistic significance of this traditional clay in the Ashanti Region. Mfensi clay has long been revered for its unique properties that make it a preferred choice for artisans and craftsmen in creating distinctive and culturally meaningful souvenirs. By understanding the historical context and cultural importance of Mfensi clay, people can appreciate its role in preserving

local traditions and craftsmanship while offering a glimpse into the artistic legacy of the region (Torsu, 2021).

In the realm of related studies, research has shown a growing interest in utilizing indigenous materials like Mfensi clay in souvenir production as a means of celebrating cultural identity and promoting sustainable practices. Studies have explored the economic and social impact of incorporating local resources into artisanal work, emphasizing the importance of supporting traditional craftsmanship and empowering local communities. By examining these related studies, we can understand the importance of Mfensi clay as a material for the production of souvenirs, not only as a form of artistic expression, but also as a means of increasing the preservation of treasures, heritage and social development. Nsiah (2007) delved into the study of Mfensi Clay in the Ashanti Region, where the research talks about the processes involved in the making of the Mfensi clay. The exploration of Mfensi clay for souvenir-making aims to understand its artistic, cultural, and economic potential. Objectives include studying its unique properties, cultural significance, and market feasibility. By investigating these aspects, the research seeks to showcase the value of Mfensi clay in preserving local heritage, promoting cultural identity, and assessing its commercial viability in souvenir production by producing souvenirs from Mfensi clay.

LITERATURE REVIEW

Theoretical Model

The study adopted the production theory. Production which is very relevant in metal souvenirs according to Production Theory Basics (2009) is considered from the perspective of having an input converted into output whereby goods and services suitable for exchange will be the priority (Figure 1). In examining Mfensi Clay as a material for making souvenirs, production theory plays an important role in understanding the process of turning this raw material into a finished product. Production theory is the analysis of inputs (such as labor, capital, and raw materials) and the production process to maximize output. When it comes to the use of Mafani clay for the production of souvenirs, the production concept helps to optimize the use of ceramic materials, to determine the best production methods, and to ensure that affordable and sustainable souvenirs. Using the techniques of production theory, artists can increase the quality, quantity and effectiveness of souvenirs made from Mfensi Clay.

Researchers have asserted the production theory by using in their study. Ali et al. (2009) study delved into consideration of productions from its factors in totality with respect to production without inputs and output. Input as a factor of production is further considered in different categories involving raw materials, machinery, labour services, capital goods, land, and entrepreneur the process of production.

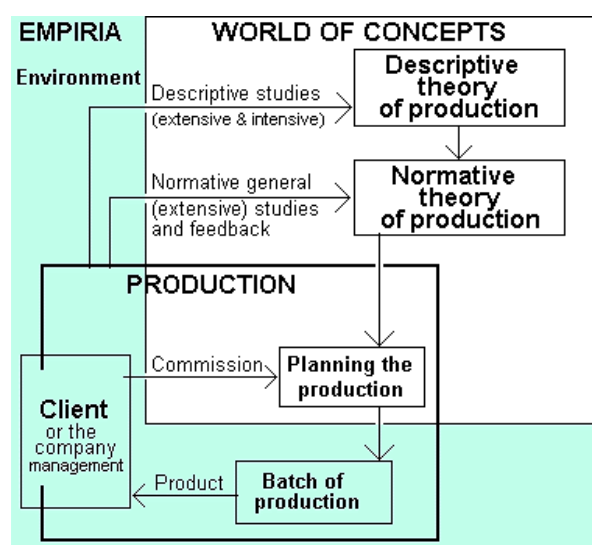


Figure 1. Theory of production
Source: Production Theory Basics (2009)

Clay as a Material (Properties, Size and Shape)

According to Emmerich et al. (2009), the first reference known to have been made on clay date back to Rome, 60 BC where it was referred to as “stones”. Throughout ancient history, clay has been known for treating skin ailments as well as treating internal gastrointestinal issues. Marco Polo also described how often he witnessed clay been used to cure fever by injecting “pink earth”. He referred to clay as pink earth (Sergeyev et al 1980). Wypych & de Freitas (2022) opine that in ancient times, clay was a remedy for combating famine. Ombaka (2016) supports the view that clay body is the actual content that makes the clay. So many different materials come together to attain at the content of clay. These factors determine the plasticity of the clay, the pigment and the temperature that the clay can withstand. Different variations of these substances result in different properties of clay (Yusof et al., 2020).

Dasog et al. (1987) indicates that electron micrographs have been employed to examine these two aspects of clay mineral properties. Well-formed, six-sided flakes of properly crystallized kaolinite are visible that frequently have a noticeable extension in one direction (Li et al., 2019). Often found as tubular structures, halloysite has an outer diameter that ranges from 0.04 to 0.15 micrometres (Wang et al., 2020). Dondi et al. (2014) show that broad undulating mosaic sheets are frequently visible in electron micrographs of steatite made from clay. The flake-shaped components can sometimes be observed, although they are typically too minute or too thin to be noticed separately without close inspection (Qi et al., 2023).

Mfensi Clay

Mfensi is a town in Ghana's Ashanti Region's Atwima Nwabiagya District. Its clay residue has made this place well-known asserted by Endene (2020). Mfensi clay is one of the most useful clay types in the Ashanti Region. In view of its importance, a study has been

carried out to determine its characteristics to serve as a guide for local pottery ventures and ceramics industries (Amoanyi et al., 2012). Mfensi clay was reasonably plastic and when fired at 1100C, turned yellowish-brown (Tamakloe et al., 2015). The clay is suitable for earthenware and stoneware, apart from bricks and tiles, owing to its high refractoriness (Endene, 2015).

Souvenirs

The word souvenir is Greek, from the word Sou, meaning “something cheap or tacky,” and Venir, meaning “bought on vacation by a relative, workmate or a friend (Kim & Litrell, 2001). Feldman (1994) opines that, souvenirs have always been a crucial part of the travelling experience and due to this reason, it is regarded as a multi-million-dollar business. Very often, travellers would show immense interest in returning from their trip with something unique to where they’ve been. Etzel et al. (1997) testifies that the evolution of souvenirs is a prelude to a multi section journey of infographics developed from a survey of travellers across Asia, the Middle East and Africa. Lee Lin Teo, Director of Brand Management for the Holiday Inn Brand Family across Asia, Middle East and Africa at Intercontinental Hotel Groups said “Souvenirs are an integral part of the travel experience and everyone has a souvenir that are treasured momentos of a great trip, as well as one that might have quickly found their way to the back of a cupboard (Anderson & Litrell, 1995).”

METHOD

The present practices of employing clay as a material for souvenir creation were described using the studio-based method under qualitative research design. The data collection instruments used was interviews, observations and photographs. In a semi-structured interview, the research may supplement the conventional questions (from the interview guide) with one or more specially crafted inquiries to elicit more information or go further into a subject's thought process, according to Leedy & Ormrod (2015) to collect data from potters at Mfensi. Participant observation was used by the researcher to collect data from the various activities of the selected people who produce work.

In this current research dispensation observation included observation of the various preparation of clay and the production processes at the various sites. This study certainly employed all these data collection tools in order not to deprive the study of any relevant discovery as far as the design and production of clay souvenirs were concerned. Mfensi clay souvenirs were critically observed also to ascertain the materials and the type of production techniques used. The researchers also embarked on market survey to find out the kind of souvenirs on the market, Ghanaian industries which deals with artefact and also took related photographs and also at the sites to enable discussion. Expert sampling under purposive sampling was adopted for the study. Purposive in the sense that because it was specific on Mfensi clay, people knowledgeable on the use of Mfensi clay were interviewed. For this study, the researcher considered population as a group of people having information on souvenirs as well as Mfensi clay. Within the context, the potters of Mfensi, Potters at the Cultural Centre, souvenir mechanisms, lecturers in KNUST, technicians at KNUST and

Ministry of tourism are considered to constitute a population. Table 1 shows the distribution of accessible and sampled population for the study. The study asserted the sample size by using Cresswell (2014) assertion that 50% is a fair representation in qualitative study.

Table1. Distribution of Accessible Population and Sample Size for the Study

Population	Target Population	Sample size (50%)
Potters at Mfensi	6	3
Potters at cultural centre(ksi)	6	3
Lecturers in KNUST	4	2
Technicians KNUST	2	1
Ministry of tourism	2	1
Total	20	10

Source: Fieldwork by Researchers (2022)

Justifiably, with the direction of this research several ethical issues needed to be given attention all through, and after the research had been conducted. Concerning the rights, needs, values and desires of the research respondents. Qualitative data from interviews were analysed using thematic analysis. This involved coding the data, identifying patterns, and developing themes that captured the key issues related to bureaucratic delays (Terry et al., 2017).

RESULTS AND DISCUSSION

Pre-Production Stage

The pre-production stage of the studio-based research saw an important part of the creative process of claywork by designing souvenirs. The process involved planning the execution of the souvenirs by designing sketches.

Working Drawings

The process used to produce souvenirs was straightforward. It had been simplified to make it easy for laypeople to read, comprehend, and follow the steps involved in making souvenirs out of Mfensi clay. The production was made by making working drawings and later executed by either by throwing or modelling as well as casting. In designing the souvenir, the researcher considered the entire design process in its component parts. These are the making of traditional pottery wares, integrated indigenous forms and proverbial forms and contemporary forms. The sketches made are outlined in (Figures 2 to 4).

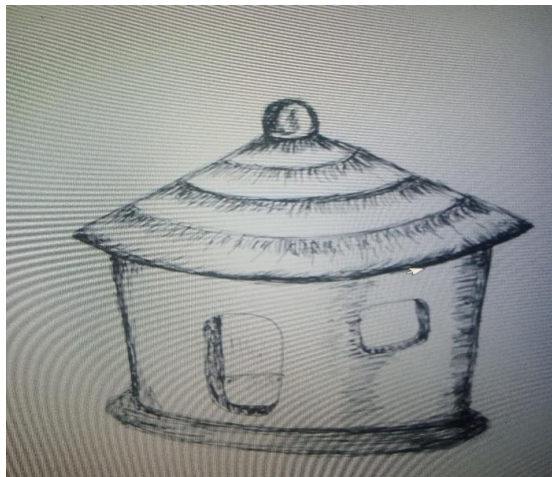


Figure 2. Working drawing of a hut keyholder
Source: studio work (2022)

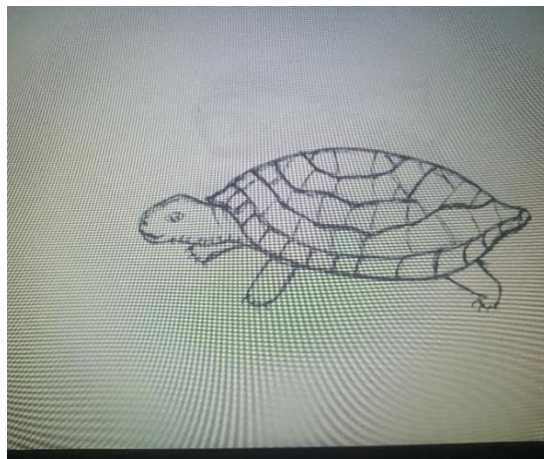


Figure 3. Working drawing of a tortoise souvenir
Source: studio work (2022)



Figure 4. Working drawing of a souvenir
Source: studio work (2022)

Production Stage

The production stage of producing a souvenir involved taking ideas from the pre-production stage and executing them into a finished product. The study worked on the detailed plan of the working drawings as a solid concept to create the souvenir.

Forming and Finishing Souvenirs

A potter's wheel was used in the mechanical forming technique known as "throwing" to facilitate the forming process (Figure 5). Techniques that facilitate the souvenirs serve as the direction for the act or formation process. Consistent practice of these strategies was required. Throwing, on the other hand, is the fastest way to make bowls and can be used to quickly produce huge numbers of bowls.

These were the processes taken when throwing were as follows:

- a. Prepare the clay to make it plastic, knead it to even consistency and wedge to get rid of foreign materials.
- b. Using a sizable amount of clay, form a ball.
- c. Smear some water on the clay and bang it against the middle of the wheel head. Having the clay firmly grasped in both palms while the wheel is turning. Drag up and down on the clay.
- d. Using the thumb to make a hole in the center of the clay, stretch it across with equal amounts of pressure and distance while holding the clay between your palms. At the base of the hole, at least 2 cm of thickness must be left.
- e. Grasp the bowl with one hand while holding it with the other. Pull up on the clay's internal walls.
- f. To guarantee that the souvenir is formed at this point, the wheel's speed is controlled.
- g. After that, the thrown shape is removed from the wheel head and given time to dry before firing the souvenirs.
- h. Either an electric or a firewood kiln is used for the firing.



Figure 5. Throwing on the potter's wheel

Source: studio work (2022)

Finishing the Souvenir

After the firing process of the souvenirs, the souvenirs were left to cool. Souvenirs were decorated with traditional symbols and then integrated with other traditional designs (Figures 6 to 8).



Figure 6. a finished souvenir

Source: studio work (2022)



Figure 7. Finished Souvenir 2

Source: studio Work (2022)



Figure 8. Finished Souvenir 3

Source: studio work (2022)

Exploring the Mfensi clay as a souvenir reveals an artistic, cultural and economic world that combines traditional and modern art. The artistic appeal of Mfensi Clay lies in its unique properties that allow artists to be creative as buttress by findings of Torsi (2021). Its natural texture, earthy colour and simplicity are a good base for creating complex designs and shapes, allowing artists to give memories an artistic and personal touch. Using the artistic power of Mfensi Clay, artists can create souvenirs that are not only keepsakes but also works of art that reflect the heritage of Ghana.

Furthermore, exploring the cultural significance of Mfensi Clay reveals its deep connection with local culture and art. Mfensi Clay is a symbol of heritage, identity and community in local culture. The artisans pay tribute to the ancient traditions and customs that have been passed down through the generations by using Mefensi clay in the creation of objects. Each souvenir made by Mfensi Clay becomes a cultural ambassador, perpetuating ancient traditions and stories. By examining Mfensi Clay as a souvenir item, artists not only celebrate their heritage but also share it with the world, promoting awareness and appreciation of cross-cultural practices as asserted by Amoanyi et al. (2012). From an economic point of view, the use of Mfensi clay in souvenir production will provide a good opportunity for artists and local communities. By tapping into the economic potential of this indigenous material, artisans can create a sustainable livelihood while contributing to the economic growth of the region. The production and sale of Mfensi Clay souvenirs can stimulate local entrepreneurship, generate employment opportunities, and bolster the tourism sector by offering visitors authentic and culturally significant keepsakes. Additionally, by promoting Mfensi Clay souvenirs in domestic and international markets, artisans can showcase the region's artistic prowess and cultural heritage, attracting consumers seeking unique and meaningful souvenirs.

CONCLUSION

Exploring Mfensi Clay as a material for making souvenirs transcends mere craftsmanship; it embodies a journey of artistic expression, cultural preservation, and economic empowerment. By harnessing the artistic, cultural, and economic potential of Mfensi Clay, artisans not only create beautiful and meaningful souvenirs but also contribute to the preservation and promotion of local heritage. This exploration highlights the legacy of traditional arts and the transformative power of art to promote cultural pride, economic growth and communication. This limitation of the study affected the generalisability of the results. The study focused in the Ashanti Region may limit the transferability of the findings to other regions or contexts. The study recommends potteries should be expanded and investigated by local potters so that they can go beyond merely creating earthenware and consider ways to incorporate them to create beauty. The diversity of these types should take into account modern consumer or user desires. To teach local potters how to creatively create souvenirs from Mfensi beyond their functional objectives, stakeholders like the Kumasi Cultural Center and Ministry of Tourism and Culture should offer workshop programs at the various pottery settlements or centres. Local potters should be trained on how to create market for their products. Trading these diversified products online can be source of foreign exchange to the country. Second-cycle schools and tertiary institution where pottery or ceramics is taught should develop studio practices or curriculum of exploring the diversification of our various indigenous pottery as a means of preserving and promoting them to maintain our cultural values.

REFERENCES

- Ali, N. B. H., Sellami, M., Cutting-Decelle, A. F., & Mangin, J. C. (2009). Multi-stage production cost optimization of semi-rigid steel frames using genetic algorithms. *Engineering Structures*, 31(11), 2766-2778.
- Amoanyi, R., Kwawukume, P. S., & Momade, F. W. (2012). Improving the Strength properties of Afari and Mfensi clays by chemical stabilization. *International Journal of Engineering Research in Africa*, 8, 1-15.
- Anderson, L. F., & Littrell, M. A. (1995). Souvenir-purchase behavior of women tourists. *Annals of tourism research*, 22(2), 328-348.
- Cresswell, T. (2014). *Place: an introduction*. John Wiley & Sons.
- Dasog, G. S., Acton, D. F., & Mermut, A. R. (1987). Genesis and classification of clay soils with vertic properties in Saskatchewan. *Soil Science Society of America Journal*, 51(5), 1243-1250.
- Dondi, M., Raimondo, M., & Zanelli, C. (2014). Clays and bodies for ceramic tiles: Reappraisal and technological classification. *Applied Clay Science*, 96, 91-109.
- Emmerich, K., Wolters, F., Kahr, G., & Lagaly, G. (2009). Clay profiling: the classification of montmorillonites. *Clays and Clay Minerals*, 57(1), 104-114.
- Endene, C. E. (2015). *Engineering geological evaluation of Mfensi and Afari clay deposits for liner applications in municipal solid waste containment systems* (Doctoral dissertation).

- Endene, E., Gidigasu, S. S. R., & Gawu, S. K. Y. (2020). Engineering geological evaluation of Mfensi and Afari clay deposits for liner application in municipal solid waste landfills. *SN Applied Sciences*, 2(12), 2102.
- Etzel, M.J., Walker, B.J. and Stanton, W.J. (1997). *Managing Brands Equity "Marketing Research"* (London): McGraw Hill, Irwin.pp.24-33
- Feldman, E.B. (1994). *Practical art criticism*. Englewood Cliff, New Jersey; Prentice Hall Press. pp. 23-31
- Kim, S., & Littrell, M. A. (2001). Souvenir buying intentions for self versus others. *Annals of tourism research*, 28(3), 638-657.
- Leedy, P. D., & Ormrod, J. E. (2015). *Practical research*. Pearson.
- Li, S., Wang, C., Zhang, X., Zou, L., & Dai, Z. (2019). Classification and characterization of bound water in marine mucky silty clay. *Journal of Soils and Sediments*, 19, 2509-2519.
- Littrell, M. A., Anderson, L. F., & Brown, P. J. (1993). What makes a craft souvenir authentic?. *Annals of tourism research*, 20(1), 197-215.
- Nsiah, J. K. (2007). The study of Mfensi clay in the Ashanti Region of Ghana. *Ghana Journal of Science*, 47, 123-129.
- Ombaka, O. (2016). Characterization and classification of clay minerals for potential applications in Rugi Ward, Kenya. *African Journal of environmental science and Technology*, 10(11), 415-431.
- Potts, R. (2018). Souvenir. Bloomsbury Publishing USA.
- Qi, J., Yu, J., Shah, K. J., Shah, D. D., & You, Z. (2023). Applicability of clay/organic clay to environmental pollutants: green way—an overview. *Applied Sciences*, 13(16), 9395.
- Sergeyev, Y. M., Grabowska-Olszewska, B., Osipov, V. I., Sokolov, V. N., & Kolomenski, Y. N. (1980). The classification of microstructures of clay soils. *Journal of Microscopy*, 120(3), 237-260.
- Tamakloe, R. Y., Opoku-Donkor, T., Donkor, M. K. E., & Agamasu, H. (2015). Comparative study of double-chamber microbial fuel cells (DC-MFCs) using Mfensi clay as ion-exchange-partition: Effect of electrodes. *African Journal of Science, Technology, Innovation and Development*, 7(3), 207-210.
- Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. *The SAGE handbook of qualitative research in psychology*, 2(17-37), 25.
- Torsu, J. K. (2021). *Exploring the potentials of mfensi clay for the production of garden stool* (Doctoral dissertation).
- Wang, H., Qian, H., Gao, Y., & Li, Y. (2020). Classification and physical characteristics of bound water in loess and its main clay minerals. *Engineering Geology*, 265, 105394.
- Wilkins, H. (2011). Souvenirs: What and why we buy. *Journal of travel Research*, 50(3), 239-247.
- Wypych, F., & de Freitas, R. A. (2022). Clay minerals: Classification, structure, and properties. In *Developments in Clay Science* (Vol. 10, pp. 3-35). Elsevier.

Yusof, M. Y. M., Idris, M. I., Mohamed, F., & Nor, M. M. (2020, April). Adsorption of radioactive element by clay: A review. In IOP Conference Series: *Materials Science and Engineering* (Vol. 785, No. 1, p. 012020). IOP Publishing.