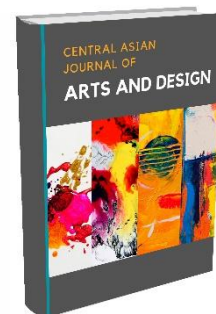




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Dye Pits and its Economic Contributions in Nigeria's Post-Pandemic Era

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Abstract

The economic contributions of dye pits in the post-pandemic era cannot be overemphasized. It plays a major role in employment generation, skills acquisition, standard of living and indigenous industrial development. This study discussed some traditional and modern dye pits in Nigeria which include the kofar mata dye pits in kano, Abeokuta dye pits, and Ignatius Ajuru University of Education, Port Harcourt modern dye pits. Dye pits are of economic importance to individual students, communities, and the country at large. The paper recommends that more attention should be given to the available dye pits especially in the area of renovation and innovations. The universities should assist in providing raw materials for dyeing of fabrics in order to improve productivity and practical enhancement of the textile students. The paper concludes that, if dye pits are given more attention in Nigeria, the traditional dyed fabrics will compete greatly with foreign fabrics.

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Introduction

Fabric dyeing dates back to over 5,000 years ago. The dyeing practices in Nigeria and dye pit system has been in existence for so many decades, Kano happens to be the home and origin of the dyeing pits which have probably existed for more than 500 years. According to Jakobsen (2016) Kano, which is located in the Northern West part Nigeria is the home of kofar mata, the oldest dye pits in Africa, where traditional indigo dyeing is still being practiced.

The historic dyeing pits in Kano have been serving as a call point to various National and International guests who visited Kano State. The Hausa Craftmen in the Northern Nigeria and Yoruba in South

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Western Nigeria are well known for their skill in dyeing. Also the Tiv of the middleben Nigeria and the Western Nigeria (Yoruba) practice indigo dyeing. In the North, according to Adedokun, Kubirat & Itunu (2015), dyeing is done by men in large communal and deep pits of about 2-3 meters deep these pits are cemented right from bottom to top. Textiles are dyed in these pits with various aesthetically pleasing designs. The dimension of the pits is a technical choice of the builder, who may adapt its size and shape not only vis-à-vis the existing pits but also to make himself more comfortable Joe-Mgbakiri (2021).

Dyeing is the application of colour to a textile material with some degree of fastness or permanence. Ammayappan & Jose (2016) avers that dyeing is textile wet processing in which colour is incorporated into fibrous products in different forms such as loose fibre, yarn, fabric and non-woven in a suitable dyeing machine. Many dyeing processes consist of repetition of certain procedures or sequences of event that can be modeled and thus controlled. A dyeing process is the interaction between a dye and a fibre, as well as the movement of dye into the internal part of the fibre. Generally, a dyeing process involves adsorption (transfer of dyes from the aqueous solution onto the fibre surface) and diffusion (dyes diffused into the fibre. Textile materials (natural and synthetic) used to be coloured for value addition, look, and desire of the customers. During the ancient times, the purpose of colouring textile was initiated using colour of natural source until synthetic colours / dyes were invented and commercialized. The primary objective of the dyeing process or method is to produce the shade on the textile substrate that matches the colour standard.

A textile is any kind of woven, knitted, knotted as in macrame or tufted cloth, or a non-woven fabric, a cloth made of fibre that have been bonded into fabric e.g felt (apparelsearch.com.2020). Textile as a practical oriented art activity needs to be encouraged for its survived in spite of the challenging situation encountered by its practioners. According to Polakoff (1982), textile played an important part in the economies of colonial power, explaining further that as the slave market dwindles, profits were replaced by the incredibly lucrative European textile market the Africans themselves supported. Today, the need to flag off the textile sub-sector of dyeing in Nigeria cannot be underestimated considering the nation's economic challenge. The need and urgency to diversity a mono-product-economic toward combating smuggling as well as indiscriminate dumping of foreign fabrics and garment into the Nigeria market is indeed convincing, hence, giving the urge for maintenance of the existing dye pits and construction of new dye pits to enhance the economic survival of Nigeria.

Some of the dye pits in Nigeria

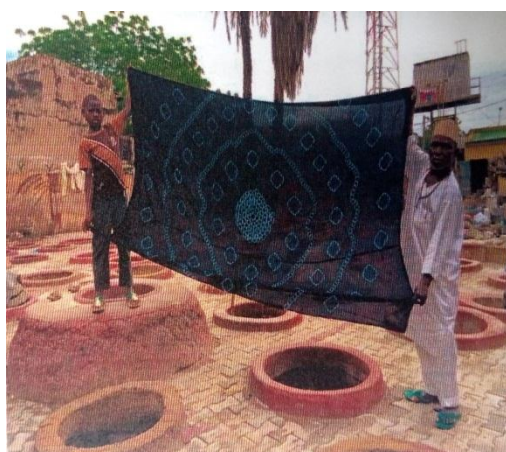


Plate 1: Kofar Mota dye pits
Source: artandculture.google.com

The kofar mata dyeing pits is located in Kano, Kano State. There are roughly 113 pits in this site, according to Oyelere (2017) Wali dan marna was the person who started these pit dyeing in Kano but later migrated to Katsina, leaving the pits for his descendants who continued the textile dyeing till date with other people joining them in the business for centuries, merchants flocked across sahara trade route to buy the deep blue cloth of Kano. This historic Kano dyeing pits have been serving as a call point to various National and International guest who visited Kano State, the pits have also served as national as well as international monuments cherish by the people of the state for over hundreds of years Dannmusa (2020).

The Kofa Mata dyeing pits is deep like around well, and a smooth stone is put at the bottom so that water will not seep and quickly. The pits are plastered with cements. According to Mustafa (2012). Most of the dyeing in Kofar mata and other area within Hausa land are dyed with indigo dyes. During the process of dyeing with indigo dye, the dyers filled the pits with water, pouring wood as he them followed by the ash stalk or maize stalk, then put in 5-10 blocks in the pits of indigo into the dye pits and is left for days to achieve effective concentration, then mixtures of white ash from previous pits that has been dried will be added to the pits also for effective performance of the indigo dye. These ingredients are properly mixed up before the dyeing commences. Thereafter, the dyers begins to dye the fabrics by soaking and stirring the fabric into the deep pits filled with mixed indigo dyes for several minutes or hours depending on the strength of the mixture. It is worthy to note that, the mixed dyes in the pits are used for days or months for other fabrics depending on the mixture of the other properties that were added to the pits in preparation for dye. After usage, the water will be scooped out of the pits by the dyers.

The dye pits founded in 1498 has been a source of attraction to travellers and traders from across the vast Sahara region to the Kano emirate, helping to make the city one of the most prosperous in West Africa at the time. According to Anna (2019) the dye pits in Nigeria ancient Northern city of Kano are said to be the last ones of their kind after five centuries of existence. The original known dyes for indigenous Hausa dyeing was the local indigenous dyes, which some researchers believed to have oriental origin. Nasir (1984) reports that the indigo dye and the dyeing process were brought into Hausa by the Berbers and Arabs from North Africa through the Trans-Sahara trade route. Prior to the introduction and subsequent acceptance of synthetic indigo, other important dyes, chemicals and dyed fabrics, the Hausa traditional dyers were renowned for their skill in indigo dyeing. It is important to note that the Hausa patterning method is by stitching tying and knotting.

According to Dutsenwai (2008) the techniques, equipment's and dyeing materials were indigenous and simple. Indigo dyeing among Hausa people was highly a specialist occupation usually for men. The above confirms the assertion of Adiji (2017) that male dyers working at a communal dye pits were the bases of the wealth of the ancient city of Kano. Hausa cities, towns, and villages had many deep circular dye pits usually grouped in cluster, but sometimes arranged in rows with dyer having a minimum of two or more pits for dyeing and rinsing of dyed yarns, fabrics or garments. Dahiru (1992), Highet (1984), and Heathcote (1976), reported how the indigenous dyers owned several dye pits, practiced dyeing and produced fine dyed yarns, fabrics and garments.

Abeokuta dye pits in the south western Nigeria

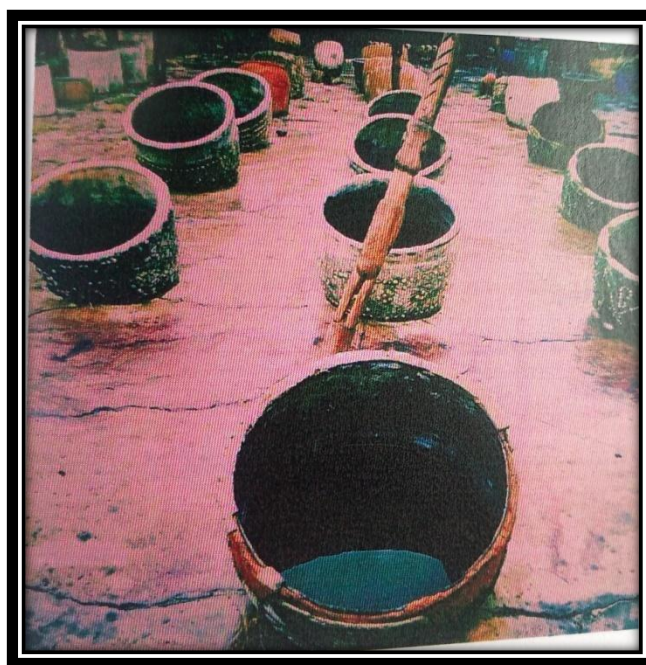


Plate 1: Nike Dye Pit Centre – Oshogbo

Source: <https://www.unravellingnigeria.com>

Nigeria have love for natural fabrics and in South Western region they have special interest in patterns and design with many prints and motifs. According to Adiji (2017) in Northern region it is common for cloth to be in single colour especially indigo colour. From Abeokuta in Ogun State to Kano in Kano State of Northern Nigeria, indigo dye signifies wealth, abundance and fertility (Adiji, 2006). Incidentally, women are more involved in indigo dyeing in most towns in Yoruba land. They exhibit a lot of expertise in this direction. Abeokuta the capital city of the state is famous for its indigo dyeing popularly known as “adire”, though this dyeing practices has since spread to all the local government areas of the state. (Adiji 2006) supports that, the chief dyeing centres in the south western part of the country are Abeokuta, Ibadan and Oshogbo. In this areas, the cloth has assumed the popular name of “Adire” meaning “to take, to tie and dye”.

In Yoruba, dyers use dye pits of 2 – 3 meters deep, while in the Northern part of Nigeria the pits are between 1 – 6 meter deep. The cloth is left in these pits for a day or two before being rinsed and dried. The south Western Nigeria practice batik method of patterning fabrics more. According to Owueye (2017). Adire art renaissance in Oshogbo contributed to artistic enterprise and rejuvenation of indigo textile dyeing industry to the level that scholars in African arts recognized it as an art. Picton & Mack, in Areo & Kalilu (2013) posits that ulli Beier and Susanne Wengar greatly contributed to the transformation of the indigo dyeing industry especially in Oshogbo.

In the present time in South Western Nigeria, Nike Davis Okundaye has played a big role in educating young people in artisans free of charge, through her art centres across the country. The dye pits in the Yoruba area are shallow while the Northern dye pits are dipper and only men are allowed to work in these pits but, the Yoruba or the Nike Davis dye pits are for both men and women. Though it’s is obvious that in Western Nigeria, the art of fabric dyeing is usually for women. Dyeing pits in Nigeria has played significant roles in our economy and in the lives of many individuals.

Ignatius Ajuru University of Education, Port Harcourt Modern Multi-Purpose Dye Pits

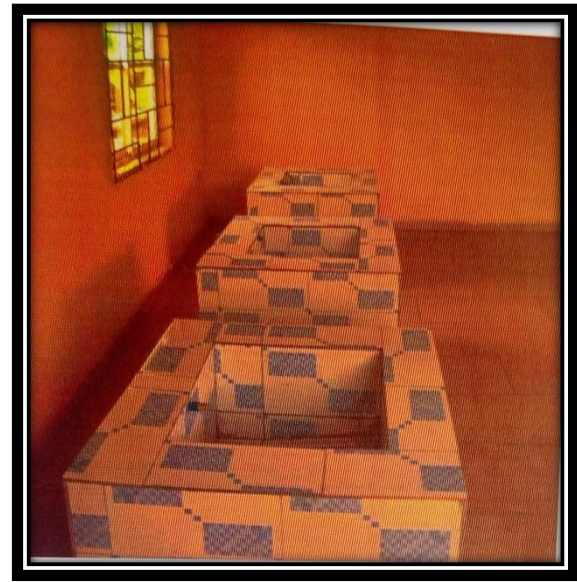
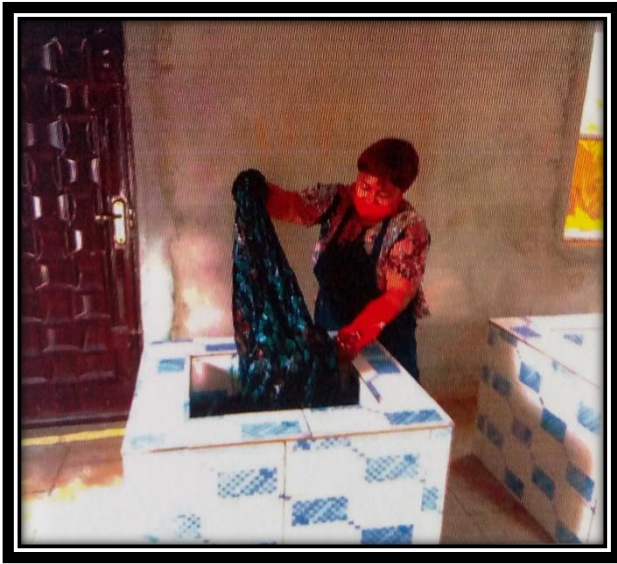


Plate 3: Ignatius Ajuru Dye Pits

Source: Researcher

Year: 2021

Tertiary institutions in Nigeria are in dire need of necessary repositioning, transformation and upgrade of textile facilities of the Fine and Applied Arts, Departments Nationwide and Ignatius Ajuru University of Education is not left out. The establishment of the Department of Fine and Applied Arts in Ignatius Ajuru University of Education since 1978 has witnessed landmark of infrastructural development and upgrade within other Departments and Faculties across the University which Fine and Applied arts has keyed into. Fine and Applied Arts Department, Ignatius Ajuru University of Education, Port Harcourt was established in 1978 with initial staff strength of three (3) and students population of six (6) for the Nigeria certificate of Education (NCE) programme. Over the years, the department has witnessed accelerated increase in student's intake; in 1998 the population of students rose up to two hundred (200), with staff strength of thirteen (13) lecturers and four (4) non-academic staff.

According to Joe-Mgbakiri (2021), the accelerated increases in students intake per year into the department is a pointer to her observation of the department's backwardness in terms of some basic and updated textile facilities and equipment which has been outrun as a result of the influx of students on admission into the Department which has hampered effective teaching and learning in the Department. This challenges has led to students lack of interest and enthusiasm for textile practical's.

It is quite obvious that the best economics in today's world is creativity, utility of technology and the arts. Innovations come as a result of confronting and challenging the stereotypes. Through this creative process, positive results occur which transcends boundaries. The researcher came up with the idea of breaking the norm of carrying out dyeing pits exercise with the traditional dye pits and basin dyeing to design and construct the modern multi-purpose dye pits for effective teaching and learning in the Department of Fine and Applied Arts of Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt. This dye pits is modern and multi-purpose because of the innovative idea of the researcher. The pit measures 2ft depth-3ft height, and the pits are housed not in an open environment. In the dye

pits pavilion, there is a water heater for dewaxing. The pits are connected to a sewage system where water will not be scooped after dyeing fabrics rather. Textile waste will be dislodged to the sewage system after the required fabric production by students.

It is therefore imperative to note that dyeing is an important aspect of textile production. The dyeing process is one of the key factors in the successful trading of textile products. The increasing complexity and difficulty in treating textile waste was what led to the design and construction of the modern multi-purpose dye pits in the Department of Fine and Applied Arts, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt. The level of creativity and imagination employed in this project corroborates with Newell and show's (1972) analogy "involving a radical newness of innovation or solution to a problem, and a radical reformulation of problem. The entire design process of this study started with a need, involved research, idea generation, design development and ended with a new functional and utilitarian design.

Economic contributions of dye pits in the Post-pandemic Era

Dyeing was introduced as an art of imparting colours on textile clothing in order to enhance the dignity of the people. Dignity in terms of appearance and gainful employment, skill acquisition, and improved standard of living to the practioners.

Employment Generation: the dye pits in Northern, South Western part of Nigeria and the modern multi-purpose dye pits in the Department of Fine and Applied Arts, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, as a cottage textile production outlet has the potential to become available source of employment of youths. Ogunbowale, et al (2008) posits that textile arts are economic tools that have great potentials for creating employment and that textile crafts constitute a good part of Nigeria's small and large scale industries. However, the Kofa mata and Abeokuta dyeing pits provides employment for men, women and youths within the environment of the dyeing pits. These dyeing pits are cottage industries because the dyers are always ready to produce for all categories of people within Nigeria and outside this country. The modern dye pits in the Department of Fine and Applied Arts has stood its ground as a source of entrepreneurial skill for textile students of the department and elective students. The cottage textile industry with its potential to create wealth and provide employment opportunities have not been optimally explored by rural women. Jusri and Idris (2012) submits that batik small and medium enterprises (SMES) in Indonesia numbered 55,779 cottage industries with total labour force of 916,783 people.

The fabric dyeing sector of textile provides an opportunity for persons with interest and competence to gainfully employed as dyers in textile dyeing facility. Since sustainable means of livelihood has been a major challenge which has consistently bedeviled communities in Nigeria. This study is an eye opener for interested people to be gainfully employed, particularly youths and women in this craft practice is a profitable economic venture through which, they earn income.

Skills Acquisition: Human resources is a key factor of production. Skills acquisition contribute significantly to the society in terms of reduction / elimination of joblessness, advancement of knowledge, technological development, reduction in crime and reduction in poverty. Given the economic situation of our country and the need to diversify the economy and redirect the youths and women from the attendant lack of skill and employment, this paper is apt and in a bit to contribute to the survival of the country's sector will go hand in hand with the development of the local dyeing industry. Damiju (2007) opines that the best option for empowerment is skill acquisition as it will ensure financial independence and better standard of living.

Improved standard of living: The engagement of youths, women and students in textile dyeing and other form of craft production has the capacity to improve the standard of living of the textile art practitioner and also boast their self-esteem. A progressive textile dyeing cottage industry will improve standard of living of citizens and also generate income for the development of local economy. Textile is among the world's most basic industries; therefore, it is often the cornerstone of economic progress in most developing countries (Soithi 2014). Textiles dyeing and textile product is capable of adding value to the practitioners within the university, community, state and the nation as a whole through their function, fashion and style, operational performance, sustainability and service.

Local / indigenous industrial development: the design and construction of modern multi-purpose dye pits being a small scale cottage industry in the university community, as I envisage is a good potential for investment. It is a promising alternative for fast industrial development. Joe-Mgbakiri (2021) posits that this outlet has tremendous capacity for growth, generate income and employment. This project will provide opportunity for the development of indigenous technology. It will also facilitate the transfer of technology from the practitioners to willing participants. The aftermath effect is that it will boast the local economy of the Department, University community, the city and its environs.

Conclusion

The paper concludes that the presence of functional dye pits in Nigeria will improve the livelihood of the society. Textile production is an essential need to the entire world, therefore fabric colouration enhances the dignity of man in appearance and gainful employment to the practitioner. The paper outline and discussed some economic importance of dye in the post-pandemic era. This research also concludes that, the presence of dye pits within the university, community, state and more, provide opportunity for development of indigenous technology, generate income and empowerment. Also if dye pits in Nigeria are given more attention, the traditional dyed fabrics will compete greatly with foreign fabrics.

Recommendation

The following recommendations have been suggested for consideration.

1. The paper recommends that more attention should be given to the available dye pits especially in the area of renovation and innovations.
2. Universities should assist in providing raw materials for dyeing of fabrics in order to improve productivity and practical enhancement of the textile students.
3. It also recommends that more researchers should study and research more on this aspect of dye pits to discover more techniques in dyeing and building dye pits.

Contributions to knowledge

1. The study creates awareness and encourages the use of dye pits in the production of dyed fabrics.
2. The study contributes to the body of knowledge in textile production through dye pits system.
3. This study has contributed to textile by adding to the existing literature on dye pits practices.

References

1. Adiji, B.E. (2017). *Technique and Development of Modern Fabric Decoration in Nigeria*. <http://www.journalijdr.com>. Vol. 07. Issue, 08.
2. Aero, O.M & Kalilu, R.O.R. (2013). *Origin of and Visual Semiotics in Yoruba*.
3. Ammayappan, L. & Jose, S. (2016). *Sustainable Production Processes in Textile Dyeing*. <https://www.researchgate.net/publication/300112511-sustainable-production-processes-in-textile-dyeing>. Accessed 8th January, 2021.
4. Anna, (2010). *Indigo, Ash and Time Mark Nigeria's Centuries Old-Dye Pits*. www.apnews.com/article/899524e. accessed 31st January, 2021.
5. Apparelsearch.com (2020). *Textile/Textile Definition: Definition for the Clothing and Textile Industry*. www.apparelsearch.com/definition/fabric/textile_definition-html. Accessed 12th October, 2010.
6. Dahiru, T. (1992). *Rini a Kasa Zazzan*. Unpublished B.A. Project, Department of Nigerian and African Languages Ahmadu Bello University Zaria.
7. Danmusa, I. (2020). *Inside The Dying 522-Year-Old*. Dye Pit of Kofar Mata. <https://www.solacebase.com/2020/09/02/inside-the-dying-522-year-old-dye-pit-of-kofar-mata/> Accessed 6th September, 2020.
8. Dutsenwai, S.A. (2008). *Influence of Modern Technology on Indigenous Hausa Small Scale Men's Garment Industry in Zaria*. A Postgraduate Seminar Paper Presented at Faculty of Environmental Design, A.B.U.Zaria.
9. Heathcote, D.H. (1976). *The Arts of the Hausa*. World Islamic Festival Publishing Company Ltd.
10. Highet, C.J. (1984). Skypower. *The Inflight Magazine of Nigeria Airways*. Aviation Publishing Services Ltd. London March.
11. Jakobsen, M. (2016). *An Introduction to the Indigo Dye Styles of Western Africa*. <https://www.heddels.com/2016/09/an-introduction-to-the-indigo-dye-styles-of-western-africa>. Accessed 10th September, 2020.
12. Joe-mgbakiri, U. (2021). *Design and construction of modern multi-purpose dye pits in the Department of Fine and Applied Arts*. Doctorial Thesis Submitted to school of Graduate Studies, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt.
13. Jusri, M. & Idris, M. (2012). *Indonesian Batik as a Culture Tradition*. Ministry of Industry. Jakarta (Indonesian).
14. Nasir, A. (1984). *Traditional Indigo Dyeing in Kano*. An undergraduate B.A. Project Department of Industrial Design. A.B.U. Zaria.
15. Newell, A & Shew, J.C. (1972). *The Process of Creative Thinking*. In: Newell, A., Simon, H.A., editors. Human Problem Solving. Prentice Hall, Eaglewood Cliffs. New Jersey, U.S.A
16. Oyelere, K. (2017). *The 'Dying' Dye Pits of Kano*. <https://tribuneonlineeng.com/dyeing-DyePits-kano>. Accessed 3rd September, 2020.
17. Polakoff, C. (1982). *African Textiles and Dyeing Techniques*. Routledge and Kegan Paul Limited. London.
18. Sodhi, N.S. (2014). *Value Addition in Textiles and Clothing* testurevaluechain.in/2014/06/06/value-addition-in-textiles-and-clothing. Accessed 20th January, 2021.