EXPLORATION OF HAUSA TRADITIONAL MAT WEAVING FOR CONTEMPORARY WINDOW BLINDS USING PALM FRONDS

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Abstract
The Hausa traditional mat weaving is an off-loom weaving that has been in existence over a long period of time. Unfortunately, the traditions of the Hausa weavers have made them to become reluctant, if not resistant to changes and innovations on the craft. This paper examines the possibility of converting the local mat from its original usage, into contemporary window blinds, a product that would have an appeal that cuts across all segments of the society and also opens outlets for such people as, the unemployed school leavers, physically handicapped persons, pensioners, etc to be economically self-reliant. The paper also focuses on contributing to the general advancement of knowledge by documenting this traditional heritage (the Hausa mat weaving technique) for students and professional weavers who may wish to engage in the craft.

Introduction
Man from prehistoric times has been engaged in technological development in his bid to meet his needs from materials that nature has freely bestowed upon him. One of the forms of technological development in earlier times is weaving. Weaving could be divided broadly into loom and off-loom. Mat making is an aspect of off-loom weaving that involves the finger manipulation of certain materials to form a structure. The various ethnic groups in Nigeria engage in the production of mat in one form or another, using materials available to them in their localities. Some of these materials are raffia, bamboo, palm fronds, grass and straw. The mat has various uses in Nigeria: it serves as material for seating, praying and sleeping.

In the Hausa speaking area of Nigeria, the material most commonly used in mat production is the palm frond. The weaving is usually done in strips which are between 10 and 15 centimeters wide. They are later sewn or joined together to make a full mat. Presently, the Hausa traditional mat weaving craft is not flourishing as it used to due to the reasons outlined below:

• The Hausa mat making is practiced by the traditional craftsmen and women who are mainly engaged in the production of sleeping mats. As they are so strongly tied to their traditions and belief, they hold tenuously to the patterns and techniques which have been passed on from one generation to the other. Intellectual productivity in the craft is therefore at a standstill, as they strictly keep to the same product, design and colour scheme as if it were a creed. We therefore witness no improvement in the aesthetic quality of their product. Their need to preserve this traditional craft intact for posterity has made their product to become aesthetically obsolete.

• There is stagnancy in the mat weaving craft as the practitioners could not do any documentation of the techniques, since they do not possess formal education. An impediment is thus, created in the path of students, textile experts and other creative people who would have shown interest in the craft. There is therefore, no research into the traditional technique, neither has it been explored for the production of some other useful products which would be in high demand.

To keep the mat weaving craft alive and maintain a sizeable patronage from the purchasing public, there is the need to adapt the Hausa traditional mat weaving technique for a popular item in interior decoration, such as window blinds. Conducting a research that explores the technique and improves the quality of the Hausa mat designs in order to make its products relevant in contemporary life will be significant.

Origin of Mat Weaving
Wulff (1966), believes that the weaving of reed and grass into, mats and baskets is an activity even older than every other type of weaving. He is of the opinion that, specimens found in Iran must have probably been made at about 5000 B.C. He further states that, mat weaving was still an important craft in Persia, for ceiling and construction of mud roofed houses.
According to Nsugbe (1962), mat serves many purposes such as beds, carpets, seats, ceiling boards and materials for fencing. They can also be woven into boxes, raincoats, hats, and many other sundry items. That several kinds of palm leaves, such as the fronds of the dum palm (hypeanethebaca) and the deleb palm (borassus flabellifer) undergo some simple processes and are used in the production of mats.

Thornton (1978), notes that in the sixteenth century, matting was the earliest form of fitted carpeting, which came in plaited strips, and so could be made into any size and fitted to the room. Materials used as carpet today did not seem to have come into existence until sometimes in the second half of the eighteenth century. In France, during the seventeenth century, straw and rush mats were commonly laid on floor; and in 1964, matting was commonly practiced in England. He reported of matted galleries in Chatsworth and some other places that bad-mats that were both plain and coloured.

He made reference to Pepy's remark about one beautiful African mat found in London in 1666, which was said to be very suitable for carpet. He also mentioned that in 1641, mattresses for sleeping were commonly laid on mats supported on a network of ropes.

Mats made by women in Djibo in Upper Volta (now Burkina Faso) were made with reed and dried bulrushes as recorded by Sieber (1980). They were so artfully woven with fingers and tightly woven that wind, light or rain could not penetrate them. They were primarily used as sleeping mats, but served other purposes as well. It was stated that, in Burkina Faso in 1623, it was the only medium of exchange.

Sieber (1980), noted that in Eastern Congo River, mat-making from reeds, papyrus, grass and bamboo was one of the most important industries. The mat was used as bed and chairs and no one travelled without his mat on which he slept and sat during the day. He describes some mats made from the Eastern Congo River, as "Curious Mats". They were made of rushes and reeds, and were dyed in several colours. Those highly decorated mats made by the Tetela Zaire and Kuba were prestige items reserved for chiefs. They served as tapestries and carpets.

Siebie (1980) remarked that mat weaving had been in existence for at least five hundred years before the Europeans came into Africa. Excavations at Igbo-Ukwu in Eastern Nigeria revealed that, as early as the ninth century, the floor of the burial chamber of the priest-king was carpeted with mats. This evidence further supports the assertion that mat making is an old craft among the various people of Nigeria.

**Curtains and Blinds**

According to Wilson (1960), curtains and blinds were most commonly associated with window for the following purposes:

- To prevent glare
- Give privacy from outside viewing
- Obscure unpleasant views
- Regulate the quantity and quality of light entering the room
- Soften the sharp form and tone contrast between window and wall areas and juncture.
- Alter the window proportions and by their line, colour, texture and pattern, bring character and a desired atmosphere into the room.

The staff of Connaisance Des Arts (1963) noted that door curtains were originally intended to hide badly placed door, which upset the balance of the room. But from the 17th century, door curtains had been used for framing opening, where there was no door. Then very little importance was attached to the decoration of windows. But during the second half of the reign of Lois XIV, curtains suddenly came into vogue. Precise rules to govern their use were quickly devised.

Thornton (1978), reports that early in the seventeenth century, a curtain that was simply pulled to one side was in vogue and a window has just one single curtain. When the demand for greater order in interior architecture began to manifest itself it was recognized that the single window-curtain could distort the symmetry of a scheme of mural decorations. It was therefore, thought that if there were two windows, one could pull each single curtain to the opposite side. Then the idea of dividing the single curtain down the middle was developed, so that the halves could be drawn to opposite sides of the window opening during daytime.

This was introduced, because it was more convenient, and it also makes the window become more decorative. The ordinary hanging curtains were also thought to require a more decorative finishing at the top. For this reason, palmets (called 'valance') were therefore added. As window curtain became
increasingly embraced in the decoration of the room, the tendency was to have them match the rest of the upholstery. If curtains were particularly delicate, very heavy or were somehow awkward to manipulate, one might fix cords to the top. The curtains could be drawn backward and forward by pulling the cords, instead of tugging at the bottom of the hanging.

**Materials Used for Making Hausa Traditional Mat**

All materials employed for the mat making are obtained locally. They are:

1. Leaves of a certain palm tree, called Deleb palm tree and otherwise known as 'Kanjunjiri' in Hausa.
2. Local dyes, called 'Galura' in Hausa.
3. Knife or needle for splitting or slicing the leaves and
4. Aluminum pot or bucket for boiling or dying the palm fronds.
5. Scissors for cutting the palm fronds.

**Processing of the Deleb Palm Leaves**

The leaves are processed by drying, slicing and dyeing them into desired colours.

**Mat Weaving Technique**

Mat weaving is another technique of weaving that involves the use of the fingers as tools. The technique is created by interlacing two pairs of strands, over and under one another. As the strands are locked, the normal weaving assumes its shape. Un-dyed palm leaves are normally used in starting the weaving to avoid wasting the dyed strands that will later be used for the design. A number of the leaves are split into three pairs each. To hold all the strands firmly together when beginning the weaving, the base of each one of them is not cut. For the purpose of easy understanding, the mat weaving technique is hereby explained in stages as follows:

**State 1 - Two by Two Interlacing**

This takes the following order:

1. With an un-dyed sliced leaf in each hand, the left hand leaf is placed diagonally towards the bottommost part of the right hand leaf to form an "X" shape.
2. It must be ensured that the two thumbs are placed where the leaves are crossing each other, with the first finger supporting the leaves at the same point underneath.
3. With the left thumb on the left leaf, the first pair of strands are turned upwards left-wise.
4. The first finger of the right hand is again used to turn the first two pairs of strands on it upward. At the same time the left thumb presses down the second pair of the left hand strands,
5. Lastly, the third pair of the right hand leaf is turned upward over the third pair of the left hand leaf with the right hand first finger.

This ends the interlacing of the two leaves, and subsequent ones are woven in the same manner. The first finger and the thumb are the most functional tools in this weaving, while the others support them in the process. One who learns how to use them effectively will have little or no problem in manipulating the strands.

**Stage 2 - The Width of the Mat Strip**

1. Two interlaced leaves in stage one are placed diagonally one over the other.
2. Then the under-over interlacing of the two pairs of strands is done consecutively as described in stage one.
3. By adding more of the leaves in stage one and weaving them together one after the other, a woven roll is formed, one can stop adding more of the leaves as soon as the width of the proposed mat strip is getting beyond what the palm can effectively handle. At the end of this stage, two groups of leaves would be seen, with one set upwards and the other downwards like a shredded or opened set of warp yarn on a loom.

**Stage 3 - Weaving of the Main Body of the Mat**

1. The weaving of the body of the mat starts from the right hand by forming the selvedge. The selvedge is created by bending one of the strands of the first pair backward, then passing it behind the next two pairs and bringing it out in between the second and their
pairs to join the front strand.

2. The normal under-over weaving of the two pairs consecutively continues and the body of the mat takes its shape.

**Stage 4 - Replacement of Strands and Introduction of Colours**

Replacement of strands is done for continuity of the weaving and formation of design. The strands are replaced one after the other on both sides of the mat strip at about three centimeters away from the selvedge. This position could be determined by counting six or seven strands from the edge of the strip. The new strand could be a coloured or dyed one as in the case of design formation.

1. The new or coloured strands are introduced by bending the front strand of the sixth or seventh pair into the body of the mat, and inserting the new strands to complete the pair.

2. The weaving is then continued to the end of the strip and the selvedge is formed in order to begin another row.

3. To fix a woven row rightly into position, the weaver stops the weaving action, after forming the selvedge and pulls the two sets or groups of strands tightly with the two hands. This can be likened to the beating given to the weft yarn when weaving on a loom.

Pre-planned drawing as reference for weaving a design is one of the means intended to achieve the objectives of this study. Difficulty encountered in not understanding the diagonal movement of each strand in a weave made the researcher to initially consider the use of pre-planned drawings to be near impossible. However, after familiarization with the technique, she overcame the initial difficulty and then set out to develop ideas and carry out some experimentations.

Drafting designs on paper eventually became possible through a careful study of a small woven mat strip. The first observation revealed imaginary vertical and horizontal lines all over the whole woven unit. This was followed by the strands producing a kind of twill weave or diagonal lines in the squares. Finally, all the strands were seen to be forming diagonal herring bone pattern. These various observations were then drawn on paper one after the other as shown in Figures 1 and 2.

**Production and Operational Mechanism of the Window-Blinds**

A long continuous mat strip of seven metres (700cm) in length and nine centimeters (9cm) in width was woven. It was later cut into seven strips of one metre (100cm) each. A piece of cloth was then sewn to both ends of each of the strips to keep them tidy and also prevent them from loosening. Two eye-lids were attached to each side of the cloth. The eye lids are used to hang the strips unto the board and also to fix the ropes that were used to connect all the strips together along the rail. Three pieces of plywood were used to construct a face board on which the strips would be hung. Two of them were designed to have small cut curve shape. These two pieces of wood were nailed together horizontally with the plain piece coming in-between them to form a box-like structure. The board behind was being placed higher above the one in front.

In order to hang the strips in the box, two perforated rentals were nailed behind to both ends of the front board from behind. Wires were then connected from each hole of the metal to the other.

With the help of rings, each of the mat strips was hung to the wires to enable the strips move freely on the wire rail. Lastly, all the strips were connected together with two long ropes which passed through the holes of the eye-lids from one side to the other, and also through the perforated metals. These ropes are used to operate the blinds.

When the left rope is pulled downwards, all the strips spread out one after the other. The strips are parked together behind the front strip, which has been fixed permanently to the wire, when the right rope is pulled downwards. To make the work presentable, the face-board was painted with white oil paint. A small iron rod was fixed into the attached cloth of each strip with the aid of the eyelids in order to keep the strip properly hung.

**Recommendations**

Weaving of palm fronds into mats, window blinds or any other product is a craft, which if given special attention could contribute immensely to the upliftment of the standard of economy of the country. According to Cardew and Pupils (1983), the key factor in search for self-reliance in developing countries is to establish small industries which will mainly be producing local craft.

Heinrich and Hamburg (1980), also records that in Germany, the artist - craftsman is a small entrepreneur producing particular goods; that although the individual business may be small, it can
still produce a living for the individual owner and his staff. They add that recognizing the potentials inherent in the activities of the craftsmen, the German government in 1990 established training centres for crafts work. There are other developed countries where craft is highly esteemed, such as in Japan, where there are craft universities and schools (e.g. Craft Universities in Tokyo and Tsukuba).

Nigeria is a developing country blessed with talented, but unrecognized craftsmen and women, whose talents are decaying or dying due to lack of appreciation of their craft. It is advisable that the government draws a clue from those advanced countries in giving appreciation and recognition to craft work. Small craft industries and training centre should be established in different parts of the country. The adoption of such a policy as this will encourage young school leavers, the physically handicapped, pensioners and other job seekers to explore the different aspects of the craft, weaving, carving, and pottery and earn a living for themselves, thereby making them gainfully employed and self reliant. This will contribute greatly towards improving the country's foreign earnings as some standard craftwork could be sold outside the country.

Conclusion
The areas covered by this study include:
1. Processing of the raw material for production of the window blinds.
2. Documentation of the mat weaving technique.
3. Drafting of the design patterns as reference for weaving.
4. Weaving of the drafted design.
5. Production of the constructed window blinds

References


