



## MANAGEMENT OF LEATHER SCRAPS AMONG SENIOR HIGH SCHOOL VISUAL ART STUDENTS IN GHANA

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**Abstract:** *The importance of leatherwork cannot be overemphasised in society. In Ghana, leatherwork creates a source of livelihood for visual art students and graduates. However, leatherwork activities lead to the generation of hazardous waste which can negatively impact the environment and society. These wastes, if managed properly, could serve as low-cost inputs for artwork that would provide benefits to the environment and artists. This study investigates how visual art students in one senior high school in Ghana use their leather scraps for up-cycled artwork. Items produced, techniques used and factors considered in determining the usefulness of leather scraps generated from practical leatherwork activities are considered. The research used a descriptive qualitative research design. The principal instrument used to collect data was interviews and observation. A total of 21 students, selected purposively, formed the sample population. Thematic data analysis approaches were used to make meaning from the data. Findings from the study revealed that most students use leather scraps to make small to medium-sized items for non-commercial purposes. Patchwork, thonging and applique featured as the most prominently used techniques. The size and extent of defects also determined the usefulness of leather scraps. It was concluded that leather scraps can be used either as a supporting or dominating material for making leather articles; and joining is a prerequisite for using leather scraps as a dominating material. It is recommended that further studies be conducted to understand the effect of joining techniques on product durability, effort and time efficiency.*

**Key words:** *Leatherwork, Waste Management, Up-cycled Art, Upcycling Techniques, Waste as Resource*

### 1. INTRODUCTION

Leatherwork can be considered an important activity in any economy. The leatherwork sector serves as a source of livelihood to individuals and provides access to basic human needs such as footwear, containers and furniture among others [1]. Nevertheless, leatherwork activities lead to the generation of waste that can be harmful to mankind and to the environment [2, 3]. Therefore, there is the need to manage it properly for positive results.

In Ghana, leatherwork features as one of the major courses in visual art education at secondary level aimed at training students with vocational skills, for self-employment [4]. This training requires students to plan and execute artefacts during the teaching and learning process which leads to the generation of wastes such as leather scraps. Currently, there is limited understanding of how these scraps are managed by students; specifically, the extent to which recycling strategies are employed.

This study explores how senior high school visual art students utilize leather scraps for up-cycled art. It sheds light on the ways that students handle leather scraps, specific items made, and techniques used. It also highlights the factors considered by students in determining the usefulness



of leather scraps for up-cycled art. The rest of the paper 1) reviews the literature on how leather scraps are employed for up-cycled art by artists, 2) explains how the study was conducted and, 3) reports on key findings, discussions, conclusions and recommendations drawn from the study.

## **2. LEATHER SCRAPS FOR UP-CYCLED ART**

The production process of any leather artefact involves the generation of leather scraps. Leather scraps can refer to multiple things. According to the literature, leather scraps include excess pieces of leather (e.g. trimmings) derived from the cutting stages of the leather product manufacturing process [5] as well as discarded prototype samples [6]. Scraps usually come in varied sizes depending on the nature of the product being manufactured. In this study, leather scraps refer to leftover leather pieces obtained at the end of a semester's practical work activities.

Upcycling is a form of re-cycling that converts wastes into valuable products [7]. Up-cycling in visual art involves transforming waste and discarded materials into an artwork. Several studies [8, 9, 10] have shown how waste materials from plastic, cans, electronic items, scratch cards and car tyres can be recycled for beautiful artwork. Thus, advocating the concept of waste as resource for environmental and societal benefit.

Very few studies [11, 12, 13] have looked at leather scraps for up-cycled art. The first study [11] focused on leather scraps and textiles to make fashion accessories like table mats, wallets, jewellery, handbags, and cushion covers among others. The second study [12] also experimented with leather scraps to create items such as belts, footwear, handbags, and decorative ornaments. The third study [13] employed scientific approaches to change leather scraps into composite sheets to create artefacts like mouse pads, key chains, wallets and interior decorations items. Items produced were generally small to medium-sized and decorative techniques such as applique and patchwork featured prominently.

In the three studies mentioned above, leather scraps were utilized mainly for small items. However, observations of images presented in these studies show that leather scraps could also be manipulated to create larger items provided pieces are joined together or combined with other materials. Joining techniques applied included gluing and machine stitching.

It is suggested in the literature [14] that deterioration of leather is inevitable if the leather is exposed to things such as heat, water, salts and chemicals. To this end, it can be argued that even though leather can deteriorate, its life span can be extended as leatherworkers follow some general principles of care, storage [15]. This suggests that leather scraps could be beneficial for up-cycled art provided the needed care is given.

## **3. RESEARCH METHOD**

The descriptive qualitative research design was adopted. Interviews and observation served as the main tools for data collection. A single case study focused on one senior high school in the Cape Coast Metropolis was employed with a target population of forty-seven (47) second and third-year leatherwork students. A total of 21 students constituted the sample population who were selected purposively due to their exposure to practical leatherwork projects. Data collection was guided by the inductive thematic saturation model [16] where data collection was halted at the point where no new themes came up. Open and axial coding strategies were applied in addition to the general qualitative data analysis process of data reduction, data display and data verification [17].

#### 4. RESULTS AND DISCUSSION

Overall, results indicated that most students in the study up-cycled their leather scraps for personal, academic or non-academic purposes. For academic purposes, leather scraps were utilized for practicing decorative techniques, making templates and prototypes, testing dyes and creating thongs for testing slit holes. For non-academic purposes, leather scraps were employed primarily for producing small and medium-sized items. Small leather articles produced by most students included key holders, bracelets, pendants, watch straps, tags and bag handles while medium-sized leather articles included cases for holding pencil, water bottles, phones and cutlery, as well as purses and book jackets.

Observation of artefacts made by students indicated that leather scraps either supported or dominated production. When supporting production, leather scraps were assembled to make specific parts of items or join parts together. As a dominating material, leather scrap constituted the main body of the artefact after joining together to create a large sheet. Figure 1 below features two of the ways in which students utilized leather scraps to make the straps of a sandal and a weaving decoration on a footrest. In figure 2, there is evidence of the joining of different types and colours of leather via hand stitching to make water bottle holders. Figures 3 also shows the use of leather scraps by students in the study as a thread to join different parts to make purses, decorative ornaments, jewellery box and table mat. These items produced by students in this study are similar to some of the articles produced in upcycling art projects mentioned in the literature [11, 12, 13]. Nevertheless, there appeared to be more use of manual processes in the work produced by students in contrast to the consistent use of machine stitching for joining in studies identified in the literature.



*Fig. 1. Leather scraps used for sandal straps and weaving decoration*



*Fig. 2. Bottle holders made from leather scraps joined together by hand stitching*



*Fig. 3. Leather scraps used as a material for joining parts to make purses, jewellery box and table mat.*

In addition to specific items for which leather scraps were used, respondents referred to decorative and joining techniques they had to employ in making their leather scrap articles (see Figures 1 to 4). Results showed that techniques such as patchwork, thonging, and applique' (in-lay and on-lay) were used among most respondents (15 out of 21). Also, observation of artefacts made from leather scraps by students showed the use of additional decorative techniques such as incision, weaving, marbling and braiding. There was evidence of the use of leather scraps in combination with other non-leather accessories (e.g. rivets, grommets, metal ornaments). This mirrors techniques used in other studies [11, 12, 13] in the execution of their work on leather scraps.



*Fig. 4. Leather scraps used in combination with other non-metal accessories*

Using phrases like “my actual work” “my friends and family”, “in school projects” “gift to friends and family”, “for a friend’s birthday and myself”, respondents explained that most of their production efforts were for non-commercial purposes. Therefore, it appeared that most respondents were missing out on an opportunity to earn while studying because findings in the literature [11] indicated that 98% of respondents in a sample of 50 people they studied were willing to buy up-cycled products made from leather scraps. Despite this, one respondent highlighted her involvement in selling the artwork she produced from leather scraps for money.

In another instance, a respondent explained that she usually gave her scraps to the cobbler when going to mend her shoes, thus decreasing the amount she paid to the cobbler for his services. It is interesting to note that in one case, the student suggested swapping leather scraps as a prerequisite for up-cycling. According to her, there are times when the scraps she has are not useful to her due to their properties in terms of size, type, texture and colour specification. In such cases, she exchanged the leather scraps with colleagues for ones that suited the work she needed to do; and sometimes she had to give more than usual to incentivize the other party to swap.



Findings showed that most respondents (20 out of 21) believed that there came a time when leather scraps were no longer useful and had to be discarded. Students argued that leather scraps were not up-cyclable when they developed certain characteristics or overflowed the space available to store them. This contrasts with the response of the last respondent who argued that no matter their condition, leather scraps can always be up-cycled. It appeared that most respondents were not very knowledgeable about the principles of care suggested in the literature [15] for extending the life span of leather scraps, hence their willingness to throw away leather scraps once defects were observed.

Only a few students demonstrated an understanding of leather care and restoration. According to these individuals, they usually “cleaned their leather scraps to clear moulds”, “washed them in lime water and stretched”, “burnished scraps to improve appearance” and “placed leather scraps in open spaces to allow for proper ventilation”. Nevertheless, most students believed that such maintenance strategies did not always yield the desired effect of restoration due to the size of the leather scraps.

Regarding characteristics, phrases like “too small to serve any purpose”, “some parts are too thin and others too thick”, and “no shape can be cut out of it” suggests size as an important determinant of whether scraps should be discarded or not. Further, respondents suggested that physical appearance was another criteria for disposal and this was evidenced by the use of phrases like discard when they “develop mould”, “become crumpled”, “start to peel off,” “become hard and brittle”, “change colour”, and “have holes in them”. For most students in the study, the results suggest, that deterioration of leather scraps was quicker and this may have been due to the use of improper storage practices and the type of leather that most students were using i.e. vegetable-tanned leather.

## **5. CONCLUSIONS**

The above study has presented ways in which visual art students in one senior high school in Ghana use leather scraps. Findings from the study lead to the conclusion that leather scraps can be useful as a supporting or dominating material for the artwork. When used as a supporting material, leather scraps may not require joining irrespective of their size. Nevertheless, it appears that joining is a prerequisite for using leather scraps as a dominating material, especially for making medium to large-sized leather articles. There is a need for further studies to investigate which joining techniques offer the best durability and efficiency in terms of time and effort required for completing large leather articles made predominantly from leather scraps.

Findings from the study lead to the conclusion that characteristics such as size and extent of defect are significant in determining the usefulness of leather scraps. In addition, it could also be inferred from the study that features such as shape and colour play an important role in creating artefacts with the right aesthetic features. This means that if leather scraps do not offer good options in terms of shape, there may be a need for cutting to the required shape; thus there would still be some leftover waste which will still need proper management. Regarding colour, it can be argued that the inability of upcycled artists to find contrasting or harmonious colours in the leather scraps obtained can pose problems. Therefore, there is a need for further research into the characteristics of leather scraps generated to enable proper planning for upcycling art. Additionally, researchers need to explore production processes and techniques that allow for all leather scraps to be reused without any leftovers to protect the environment.

Further, findings from this study lead to the conclusion that the reuse of leather scraps is not always possible due to deteriorating properties. Therefore, producers of leather scraps need to be educated on the care and maintenance principles that can make the reuse of leather scraps for up-



cycling possible. There is also a need for up-cycled artists to explore production techniques that can hide deteriorating properties if needed to make leather scraps reusable for up-cycled art.

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