THE USE OF MIXED MEDIA IN THE PRODUCTION OF METAL ART

By

Mensah, Emmanuel (B.A. Industrial Art, Metals)

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DECLARATION

I hereby declare that this submission is my own work toward the M.A Art Education degree and that, to the best of my knowledge, it contains no materials previously published by another person or material which has been accepted for the award of any other degree of the university, except where due acknowledgement has been made in the text.

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…….. …….. ……..

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ABSTRACT

The focus of this study was to explore and incorporate various artistic and non artistic media into the production of metal art. The researcher was particularly interested in integrating more non metallic materials that are not traditional to the production of metal art in the decoration, finishing and the protective coating of metal art works. Basic hand forming techniques including raising, chasing and repoussé, piercing and soldering were employed in the execution of the works. Other techniques such as painting, dyeing and macramé were also used. Non metallic media that were used in the production of the works included leather, nail polish, acrylic paint, epoxy, formica glue, graphite, eye pencil, lagging, foam, wood, shoe polish, shoe lace, eggshell paper, spray paint, cotton cords and correction fluid. It was discovered that non metallic media could successfully be integrated into the production of metal art thus diversifying the course of traditional metal art in Ghana particularly in KNUST.

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E.M.

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INTRODUCTION

1.1 Background to the Study

Art practice has over the centuries seen numerous revolutions. Ideologies, philosophies and techniques in producing art works have undergone tremendous changes. The use of a combination of materials and sometimes production techniques in a single work of art is one practice that is really fascinating. This is termed mixed media art.

Mixed media art was hitherto practiced by painters where they combined Indian ink, acrylic paint, oil paint and sometimes attach cowries, shells, and newspaper articles to their canvasses. This fact is however not the same today as artists of various other art disciplines have found themselves doing mixed media art.

In metal art, artists the world over, have over the years integrated different materials into their works. Some of these materials include paints, leather, wood, twines, fabrics, bones, horns, ivory and “found” objects heading for the trash can.

Metal artists including Lilyana Bekic, Louise Norrell, Tedd R. McDonah and Valentin Yotkov are some of the people who use mixed media in the execution of their works. They use these media for a number of reasons including to decorate surfaces of metal art works, as protective coating for their works as well as to express certain ideas and philosophies in their works.

In Ghana, mixed media art is practiced by various artists including sculptors, ceramists and painters. In metal art however, not much attention has been seen by way of using mixed media for art works. The use of metal as the only material for the

production of metal art has been a barrier to the development of student's creativity as the material is expensive to acquire and requires specialized tools and equipment for the successful production of metal art works. There is thus the need to explore alternative materials that are not traditional to the field of metal art and incorporate them into the production of metal art. This will remove all barriers existing, as artists will be exposed to a wide variety of materials for the execution of their works.

1.2 Statement of the Problem

Metal art is a fascinating and very rewarding field to engage one's self in. Practicing metal art however comes with numerous challenges to the artist especially in KNUST which is the only Institution that trains people in the field of metal art. Over the years, the means of producing metal art works in KNUST has been the same. These techniques include piercing, chasing, embossing, soldering and finishing with abrasives and polishing buffs. These traditional ways of doing things over these years leaves much to be desired of the works and creativity of metal artists especially students. Metal art in other parts of the world today has seen tremendous changes and improvements in the processes and procedures and also the inclusion of different types of materials especially non metallic ones into their production. This calls for a serious look at the ways of doing metal art works in Ghana; in KNUST to be precise.

The researcher therefore seeks to explore the possibility of integrating or combining different materials used by artist of various other art disciplines including leather, colours, wood, straw, paper, fabrics, and found objects into the production of metal art works.

1.3 Research Questions

1. What is the nature of mixed media art?

2. To what extent can mixed media be used in the production of metal art?

3. What are the effects of using mixed media in the production of metal art?

1.4 Objectives of the Study

The objectives of the study are to:

1. Explore the nature of mixed media art.
2. Design and produce metal art works using mixed media.
3. Appreciate the works produced.

1.5 Delimitation

The scope of the research covers the production of art works using copper and brass as the main supports and integrating non-traditional metal art media such as wood, leather, paint, foam, and lagging into the works.

1.6 Limitations

Limitations that were encountered were;

1. The researcher could not cover the full scope of materials as a result of time and financial as well as the researcher's inability to lay hands on some of the materials needed.

2. The researcher's limited knowledge in wood working; leatherworking as well as macramé making techniques made it difficult for him to implement all his designs thus could not attain the full project targets.

1.7 Definition of Terms

Annealing the heat treatment given to metal to soften it after it has been worked.

Chasing the process of designing on the surface of a metal by sinking the metal with the help of chasing tools.

Piercing the use of a saw frame and blade to create shapes from sheet metal by cutting through the metal.

Raising the process of forming hollow wares in metal by repeated sequences of hammering and annealing of the metal on a stake.

Repousse it is a metal working technique in which a metal is designed or shaped by hammering from the reverse side.

Soldering the process of joining two metals with a third metal called the solder which has a lower melting temperature than the other two metals.

1.8 Importance of the Study

1. The results of the study adds to the body of literature on mixed media art and serve as a reference material to student, NGO's engaged in the training of artists and artisan and other researchers.
2. The results of the study, if taken up and implemented will serve as a source of livelihood to those who engage in it.

3. The project will throw light on some metal working techniques and how mixed media can be integrated into metal art.
4. The results of the project will encourage artists to explore the integration of many different materials especially those not traditionally associated with their fields into their works.

1.9 Organization of the Rest of the Text

Chapter two of this thesis comprises review of related literature, chapter three is made up of the methodology, chapter four comprises the presentation and discussion of findings and chapter five is made up of summary, conclusions and recommendations. References are arranged in alphabetical order with books first, followed by online resources.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Overview

This chapter reviews the various literature related to the topic. The literatures related to the topic are discussed under three topics with their various sub–topics. The literature is discussed under the following topics;

- Mixed media art
- Metal art and
- Appreciation

2.2 Definition of Mixed Media Art

Technically, mixed media includes all forms of art that employ more than one material in their composition. Originally, the art of mixed media was limited to painting and sculpture. Hagger (as cited in Adjei, 2007) defined mixed media art as the use of different painting materials such as water colour, crayon, oil, Indian ink or other similar combinations on a single support. An expanded form of mixed media art includes two or more interdisciplinary subjects that combine two or more of the traditional art disciplines. It involves combining different artistic media such as painting and collage, metal and wood in a single composition of work. Mixed media thus becomes a point where hitherto strictly isolated art disciplines converge.

Mixed media art is defined broadly by Hobbs (1985) as covering all those works that defy the traditional use of material and methods, combining two and three dimensional approaches in executing a single work of art. Mixed media art thus

broadens the scope for artistic expression, removing all forms of limitation be it material or method.

2.3 Categories of Mixed Media Art

This section deals with a review of works of art that are made of different types of materials and a common point of convergence for these art works.

2.3.1 Assemblage

The first of these is assemblage. “Assemblage is a form of constructed sculpture in which preexisting or found objects recognizable in form are integrated by sculptors into novel combinations that take on a life and a meaning of their own”, (Fichner-Rathus, 1998 p.132). In mixed media constructions and assemblages, sculptors use materials and ready made or found objects that are not normally elements of a work of art. Contemporary painters also “mix” their media by attaching objects to their canvasses (Fichner-Rathus, 1998).

By means of assemblage, Sayre (1997,p 259) said “ creating a sculpture by compiling objects taken from the environment – Hammond combined found materials, a common spade and a set of chains into a face that recalls the African mask”. Assemblage thus falls into the genre of mixed media art as it makes use of different materials in a single composition.

2.3.2 Collage

The second term closely associated with mixed media art is collage. Collage (from the French word ***coller***, meaning to “glue” or to “paste”) developed in France from

1912. It is a technique that involves pasting lightweight materials or objects such as newspaper and strings onto a flat surface. It involves making use of found objects which are taken from everyday sources and incorporated into works of art (Adams 1997; Adams 1999).

Adams (1999) described Picasso's collage titled ***man with the hat*** as pasting coloured papers and newspapers onto paper to form geometric representations of a head and a neck while the remainder of the image was drawn with charcoal. The use of newspaper which seems textured because of the newsprint was a common feature of early collages. Words and letters which are themselves abstract signs often formed part of the overall design.

Considering the definition of collage, and the way collage works are executed as well as the scope of this research, collage will be classified as mixed media art. The researcher will therefore adopt ideas from collages into his own projects.

2.3.3 Installation

The third term related to mixed media art is installation. According to Rooney (1999) and Sayre (1997), installation is the art of arranging or assembling 3-dimensional objects or using paint and other media directly onto a wall or a floor. Sayre (1997) further stated that collage is an all inclusive medium. It admits anything into its world. This does not happen in installation because not every thing that can be admitted into collage can sit comfortably on a wall or floor. Mixed media art is a fascinating development of the contemporary art scene and has the power to arouse

the curiosity of its audience. It is also one of the best ways to enter into and teach yourself the world of art.

2.3.4 Found Art

Another term closely related to mixed media art is found art, sometimes referred to as odds and ends. Dona (1964, p.60), referred to found art as works of art composed of objects not normally thought of as art materials. Most collages can loosely be considered as found art. Many found arts are distinct from other works that employ different materials on one support in that found art is usually restricted to the more three dimensional constructions that are made up of items frankly known as junk. Found art is a fascinating development of the contemporary art scene and one that arouses the curiosity of almost every one. By developing works of art from found objects, the artist calls attention to the beauty of form and surface of everyday objects or items ready for the rubbish dump.

Considering separately broken toys, worn-out can openers, pieces of wood, pencil sharpeners with missing parts, and scraps of machinery no longer serving a useful purpose; they would certainly seem to have little to do with art. But it is in the hands of an adventurous artist that they can assume a new importance quite diverse from their original purpose.

The researcher considers assemblage, collage, installation and found art as mixed media art because of the diversity of material employed in their production. The converging point for all these forms of art are the use of two or more media or materials in a single work of art.

2.4 Origin of Mixed Media Art

This section takes a look at the history of mixed media art and how artists have used mixed media in their various fields to achieve their set objectives. As stated earlier, mixed media art was originally practiced by painters when they combined two or more painting materials on a single support. Artists who work in other media have however joined in the use of mixed media for their works.

According to Feder (1976), there was an evidence of the use of mixed media in the United States of America by the Aboriginal tribes in their sculpture works before 1776. They combined feathers, cloth and horse hair in their wooden sculptures for religious and other practical purposes.

Vansina (1984) maintained that many wooden masks and African sculptures have made use of varieties of mixed media to serve the day-to-day needs of those who use them. These art works have been used to meet the socio-cultural, spiritual, economic and the philosophical needs of their users. The art forms were sometimes used for warfare and also to conquer their environments as was the case of prehistoric men. Particular examples are wooden sculptures decorated with fabrics, metals, beads, fibres, leather, paint, cowries and bells.

Mixed media art works were common in the sculpture of Africans south of the Sahara. The Buni ivory leopard had bronze spots and as Buni ivory mask wears iron strips on its brow. Wooden statues or masks carried additions of horns, shells, fibres as beard or dress, teeth, claws, bits of glass and mirror. Sometimes, masks were totally covered in skin thus hiding the natural medium completely.

In lower Zaire, foreign materials were often used to render eyes (shell, glass), beard (raffia) and other attributes of masks and statues. What mattered to these artists was the total effect of using mixed media on their works. Masks were much more often in mixed media than sculptures because the masks were part of dancing costumes because the total effect of a masked dancer had to be theatrical and often gaudy; thus sometimes the very qualities of the medium were lost when it served as a support or carrier rather than as a final form of the object in space by itself. According to Vansina (1984), it is not exactly known, when mixed media art was started in sub – Saharan Africa but may have been done since early 18th century.

Adjei (2007) maintained that the power figures of Congo were stylized sculptures of diverse forms with very strong religious and social significance and were believed to bring good omen and good fortune in hunting, child bearing and for prosperity. They also believed that the figures fought witches and had the power to cure diseases. These sculpture pieces were made of wood, paints, cloth, rope and metals.

The masquerade's mask and costume is a clear example of African ingenuity in the art of mixed media. The mask is made of carved wood with black and white paints representing a bush cow. The costume is made of multicoloured appliqué, raffia fibre and fur. This costume is worn during a festival in the North-Eastern part of Ibo land in Nigeria. It depicts the historical, social and political heritage of the Ibo and Idoma people of Nigeria. The multicoloured fabrics superimposed on the plain raffia fibre, complimented by the neutral colours black and white, mark a true sense of beauty and the understanding of colour by these indigenous artists.

Adjei (2007) further stated that the creation of masks and sculptures by African artists south of the Sahara had positive influence on the arts of the 20th and 21st centuries with the power and magic of mixed media and the philosophies underlying the works. The great masters of the cubist movement, Picasso, Manet et cetera, were all ideologically, philosophically and contextually influenced by African artworks and were re-oriented from the so-called conventional rules from the west to a more contextualized approach to their world of art. This brought about the artistic freedom from what was perceived as emotional and creative incarceration of the 20th century in western art. The effect of this influence was the development of Cubism and Dadaism in western art.

The history of mixed media art is an inspiration to the researcher. This will allow the researcher to produce works using some of the media and techniques mentioned in this section.

2.5 Contemporary Experimentations in Mixed Media Art

This section briefly looks at how contemporary artists have experimented with mixed media in the production of their works. The 20th and 21st centuries have seen a remarkable expression in the works of artists, using mixed media. This is due to the limitless boundaries that abound in the field of mixed media art.

Feder et al (1976) said there was the revolution and re-invention in the tradition of American sculpture mid of the first three decades of the 20th century (1900 – 1930). This saw the rampant use of mixed media by artists to express and communicate their ideas and philosophies. Notable among these artists were Marcel Duchamp, Wallace

Berman, Louise Nevelson and Man Ray. They used materials including wood, metals, meter boxes, book labels, old photographs, parts of wrecked automobiles and buildings that were not meant for art to produce their works.

Joseph Cornell, Clyde Conell, Eva Hesse and Jane Frank are other artists who made giant strides in the use of mixed media for the production of their works to express their concepts and philosophies. Cornell in particular was known in the 1940s and 50s for using delicate boxes, usually glass fronted, where he arranged surprising collections of objects, images of renaissance paintings and old photographs. Many of his boxes such as the famous ***medici*** slot machine boxes were interactive and meant to be handled (Sayre, 1997; Mixed Media Art, 2009).

As was stated by Sayre (1997, p 259), "David Hammond, an American mixed media artist used the same thematic concerns that were used by Michelangelo's ***Atlas slave*** in his work ***Spade with chains***. Both works address particularly the issue of enslavement. In Hammond's work, he combined found materials, a common spade and a set of chains into a face that recalls the African mask. The transformation of the materials of slave labour – the spade and set of chains – into a mask is an affirmation of the Americas slave's African heritage".

The Dada and Surrealist discovering that, self sufficient works of art could be created by combining useless pieces of scrap metals and other junk in unexpected ways, was one of their most fruitful insights. Picasso's ***head of a bull***, made from the saddle and handlebar of a bicycle is the best known example. Such works involved more than just the use of discarded material but it was the introduction of industrial metals especially iron into artist's studios that opened the second and final stage of

the remarkable revolution of the 20th century sculpture introduced by Picasso in 1912. His so-called cubist sculptures were made of pieces of wood, tin, cardboard, string and other discarded materials put together by a process of assembly similar to that used for his collages. (Honour and Fleming, 1984).

The researcher reviews contemporary experimentations in mixed media art so as to compare it with how mixed media art was done before the 20th century. This will allow the researcher see how mixed media art has progresses through the ages thus shape his own study accordingly.

2.6 Mixed Media Art and Multimedia Art

Whiles mixed media art refers to artworks that combine various traditionally distinct visual art media, multimedia art implies a broader scope than mixed media art. Multimedia art refers to works that combine visual art with non – visual elements or elements of other arts including recorded sound, drama, literature, music or interactivity (McNitt, 2008).

Owing to the distinction that has been made between mixed media art and multimedia art above, multimedia art does not form part of the researcher's scope of operation.

2.7 Metalwork

Metalwork or metalsmithing, as it is called in fine art refers to making various objects of artistic, decorative, and utilitarian value with one or more kinds of metal. These metals range from precious to base metals and are fashioned by various metal

forming techniques including casting, chasing, hammering, soldering or a combination of two or more of these techniques (MacNab, 2008).

2.8 Metalworking Techniques

This section takes a look at some metalworking techniques especially those that will be employed in the project by the researcher. Metalworking techniques that will be discussed under this section include chasing and repousse, raising, etching, and finishing.

Degarmo, Black and Kohler (2003), explained metalworking as the process of using metals to create individual parts, assemblies, or large scale structures. The term metalworking covers a wide range of works from large ships, bridges to delicate jewellery. They further contended that forming processes in metalworking are done by modifying metal or work pieces by deforming the metal or object without removing any material. Forming of metal art pieces can be done with heat and pressure, with mechanical force or both.

2.8.1 Chasing and Repoussé

Power (2004), stated that chasing and repousse are metalworking processes that work from opposite directions. She contended that repousse is a metalworking technique in which a malleable metal is ornamented or shaped by hammering from the reverse side and chasing as the opposite technique of repousse. The two are used in conjunction to create a finished piece. While repousse is used to work metal on the reserve side of

the work to form a raised design on the front, chasing is used to refine the design on the front of the work by sinking the metal.

Yotkov (2007) contended that working from the front of a work only is termed chasing whiles repousse is the combination of tracing the design from the front of the piece using liners, raising a relief from the back of the work using different punches, finally working the details from the front of the piece.

Both Power (2004) and Yotkov (2007) agreed that the technique of chasing and repousse make use of the plasticity of the metal, forming shapes by degrees; that the process of chasing and repousse is relatively slow but a maximum of form is achieved. The only little problem with chasing which many professionals find difficult to deal with is that the tools used in the work usually leave visible marks on the work, a condition not seen in other metalworking techniques where evidence of working method is completely eliminated.

2.8.2 The Chasing and Repoussé Process

Yotkov (2007) enumerated the chasing and repousse process as, preparing the metal, transferring the design, the initial chasing and raising the design.

Power (2004) and Yotkov (2007) agreed that preparing the metal for chasing is a very important step. They said the metal must be annealed to soften it, must be clean, grease-free and have an oxidation-free surface. The metal must be cut in a way that leaves at least ¼ inch space between the outside edge and the design area. This is necessary so that the pitch does not flow to cover the design area when the metal is placed into the pitch.

The second step is to transfer the design onto the metal. This can be done by tracing the design onto the metal using a graphite carbon paper or printing the design on paper and pasting it on the metal (Power, 2004).

The initial chasing, according to Yotkov (2007), is the third step in the chasing process. Here, fine liners are used for this chasing. The tool must be held tightly in the hand and placed over the line. Tilt the top end of the tool slightly away from the direction in which you want the tool to move and tap the top of the tool with the chasing hammer until the tool begins to move. He further stated that chased lines should be deep enough so that they can be visible on the back side of the metal where the repousse is to be done.

Reilly (2004), opined that, when doing the initial chasing, hammering must be done frequently but slowly to create smooth, evenly deep and wide lines. He said when the initial chasing is done, the metal must be removed from the pitch by heating it. The work must be annealed, pickled and placed “face down” back into the pitch for the repousse to begin.

Power (2004), Reilly (2004) and Yotkov (2007), all agreed that raising the design during the repousse is the most involving and time taking part of the chasing and repousse process. At this stage, the appropriate shapes and sizes of raising punches must be used. The design must be raised using the heavier hammer, accurately following the originally chased lines as a guide. Care must be taken not to raise any areas which are part of the background.

Yotkov (2007) stated that, chasing is not about stretching the metal but moving it. The metal is moved towards the deepest part of the relief where it is needed the most. He warned that chasing should be done gradually, in steps and no artist should attempt to reach the desired depth at once. Annealing in between the chasing and repousse process is very important to prevent the metal from tearing.

If the artist is satisfied with the raised image, then it is time for the final chase. At this point, it is crutial to fill up the depression on the back of the piece with pitch for support during chasing. The final chase is the most important and exiting part of the chasing and repousse process according to Yotkov, Power and Reilly. It is at this stage that the outlines of the design are rechased. This is done with blunt, heavy liners and the light weight hammer. Those liners which are not as sharp as the fine ones displace the metal fast without further thinning and cutting it. They will define the design and even raise the relief higher. When the work is completed, remove the metal from the pitch and clean off excess pitch by burning it with a blow torch or by cleaning with thinner. The combination of the chasing and repousse techniques can be referred to as embossing.

2.8.3 Raising

Smith (2005) described raising as a technique that is used to produce vessels that are deep or of medium depth from one sheet of metal, usually a disc. McCreight (1991) also described raising as an ancient and basically unchanged technique which is the cornerstone of metalsmithing in all cultures and times. He added that the process requires only a hammer and a solid form on which the metal is formed.

Siegner (1961), Knauth (1974), and Finegold, Rupert and Seitz (1983) are all of the assertion that raising is a technique in art metalwork where a plain and flat piece of metal is shaped into bowls or vessels of almost any shape by the repeated sequence of hammering and annealing of the metal thereby stretching it into the desired shape.

2.8.3.1 Types of Raising

Raising according to smith (2005), is categorized raising into two types. These are the anticlastic and synclastic raising.

2.8.3.2 Anticlastic Raising

Scavezze (2005), declared that anticlastic raising is a process by which a metal is deformed by the use of polished hammers and plastic mallets of various shapes and sizes. The main concern of anticlastic raising is the direction in which the metal is deformed. He said, if you pick a sheet of metal and draw two axes across the sheet at 90 degrees to each other, bend one of them up and the other down, you would have an anticlastic shape.

McCreight (1991) and Good and Aurum (1999) assessed the anticlastic process as a technique of metal forming whereby sheet metal is formed directly on a sinusoidal (snake-like) stake with a hammer. Continuing with the assertion, they said that a flat sheet is shaped by compressing the edges and stretching the mid portion so that the surface develops two curves at right angles to each other.

2.8.3.3 Synclastic Raising

According to Good (1997) and Smith (2005), synclastic raising which is also called the traditional raising has been used by metal smiths throughout the centuries to create useful objects such as bowls and vessels. They asserted that, in the simplest type of synclastic raising, hammers are used to stretch the centre of a sheet of metal, while compressing the edges so that they fold inward toward the centre, creating a bowl-like form.

Krause (2006), comments that synclastic raising which is the traditional raising technique makes sure that the dominant curves of the objects being forged are at right angles to each other and move in the same direction. Herman (2000) and Hurt (2003), as (cited in Adala, 2008), decribed the synclastic raising technique as a labour-intensive process that is used in forming art metal works over cast iron T-stakes or heads by the help of raising hammers. Yotkov (2007), established the fact that he uses this technique to produce bowls and other works of art and finishes them off by other decorative techniques such as chasing and repousse and etching.

2.8.4 Etching

Marion (1993) opined that etching is the process of using strong acid or mordant to cut into the unprotected parts of a metal surface to create a design in intaglio in the metal. He said this is the original process but in modern manufacturing, other chemicals may be used on other types of materials.

Smith (2005) stated that etching is a method of decoration which needs no skilled metalwork technique, although, as with all decorative techniques, the ability to draw, design and visualize is invaluable. He further explained that to actually produce the decoration on the metal, it is coated with a resist and the design is scratched or scrapped away to reveal it as bare metal. The metal is then placed in a bath of etchant that eats or bites the metal away.

Marion (1993) could not agree more with Smith when he said, in pure etching, a metal (usually copper, brass, aluminium, zinc or steel) plate is covered in waxy ground which is resistant to acid. The artist then scratches off the ground with a pointed etching needle in places where the design must appear in the finished piece thus exposing the bare metal. The metal is then placed into an acid bath technically called the mordant. The acid "bites" into the metal where it is exposed, leaving behind lines sunk into the plate. The remaining resist is then cleaned off using thinner, turpentine or kerosine.

Marion and Smith both agreed that the longer the metal stays in the bath, the deeper the bite.

2.9 Origin of Metalwork

Metals have been used throughout recorded history for fine and decorative art. By the 1st century AD, the metals in prime use today – iron, copper, tin, lead, gold and silver had a long development that had began some 10,000 years earlier with the working of copper. The distinction between precious metals (gold, silver and since the 18th

century – platinum) and base metals (iron, copper, tin and lead) dates from the ancient civilizations of the Middle East and prehistoric Europe (McNab,2008).

Gold and silver were sacred to worshippers of the sun and moon and were reserved mainly for religious use especially for rituals, objects used in the temples in which they worshipped jewellery and ceremonial ornaments of semi-sacred figures such as the early Egyptian Pharaohs, Priest-Kings of the Middle East and the tribal Chieftains of Europe, from Spain to Caucasus.

With time, the increase in knowledge led to the discovery of more of these sacred materials. As these sacred materials became more abundant, they proclaimed the status of a wider group, the elite in each society, its nobles and great warriors. Gold and silver were then used in making personal adornment to personal belongings such as utensils, weapons and equipment and were even extended to the making of such furnishing as mirrors, lighting stands, chairs and beds.

Gradually, gold and silver acquired a quantitative value, which was ultimately expressed in the first coins, stamped gold and silver disks which were issued by the Lydians in Asia Minor during the 7^{th} century BC. The notion of coins became popular and soon spread throughout the Middle East and into Greece. Coins have since then retained the notion of beauty and value.

Base metals, copper and bronze were appreciated for their strength, and were mainly used in the making of weapons and tools; copper, tin and lead came to be used for making utensils for storage, cooking and for strengthening wooden structures of many kinds because of their utility and durability. The peculiar properties of metals- that they can be alloy in various combinations and proportions to make better compounds

for certain purposes was understood in the ancient world. Copper and tin produced bronze; tin and lead produced pewter or pretania metal. The property of metal to be alloyed into various other compounds has been exploited over the past 2000 years with ingenuity due to increase of knowledge in science and technology.

Even though iron, copper, lead, silver and gold are still used in their fine state today, nearly every metallic produce is as a matter of fact a highly complex and carefully formulated alloy. For the purposes of the fine and decorative arts however, metals have been either used in their simple state or uncomplicated alloy for easy fashioning (Knauth 1974; MacNab 2008).

2.10 Properties of Metals

This section reviews properties peculiar to all metal as well as the major physical, chemical and mechanical properties of copper and brass which will form the basic support in which the projects to be undertaken.

2.10.1 Physical Properties of Metals

Helmenstine (2009), states that metals are solid at room temperature (except mercury) which is the only liquid metal at room temperature. They have high melting and boiling points, good conductors of heat and electricity and are malleable, ductile, hard, and sonorous.

Malleability is the ability of a metal to withstand hitting without shattering. This is why metals can be formed into various shapes and forms even when cold without breaking into lots of pieces. Ductility on the other hand is the ability of metal to be

stretched very thinly without breaking hence the reason why they can be drawn out into wire. Metals are opaque and have high density thus sink when dropped into water.

2.10.2 Chemical Properties of Metals

According to kreith (2004), metals are usually inclined to form cations through electron loss, reacting with oxygen in the air to form oxides over changing time span; iron rusts over years whiles potassium burns in seconds. Metals have one to four valence electrons, have low ionization potential, readily lose electrons and are good reducing agents.

He further stated that the transitional metals such as iron, copper, zinc and nickel take much longer to oxidize whiles gold, platinum and palladium do not react with the atmosphere at all. Some other metals such as Aluminium, some steels, and Titanium form a barrier of layer of oxide on their surfaces which cannot be penetrated by further oxygen molecules and thus retain their shiny appearance and good conductivity for a long time.

2.10.3 Characteristics of Copper

Copper has a reddish, orangish, or brownish colour because a thin layer of tarnish (including oxides) gradually form on its surface when gases especially oxygen in the air react with it. Copper in its pure state is very malleable, ductile and soft. It yields very easily to most machining and mechanical forming processes including bending, drawing, and most hammer forming techniques but does not cast well.

It has good corrosion resistance but not as well as gold. Copper has excellent brazing and soldering properties and can be welded although best results are obtained by gas metal arc welding.

(Wikipedia 2009; Encarta 2008; Snelson 2007; thriftyfun.com 2009).

2.10.4 Characteristics of Brass

According to Chapman (1978), brass is an alloy of copper and zinc. The proportions of zinc and copper can be varied to create a range of brasses with varying properties. All purpose brass has a muted yellow colour, somewhat similar to gold. It is relatively resistant to tarnishing. The malleability and acoustic properties of brass have made it the metal of choice for brass musical instruments such as trombone, tuba and trumpet. Brass has a higher malleability than copper, aluminium or zinc. The relatively low melting point of brass (900 – 940°C depending on its composition) and its easy flow characteristics makes it an easy metal for casting. By varying the proportions of zinc and copper, its properties can be changed, allowing for hard and soft brasses. Brass is harder than copper and aluminium and most non-ferrous metals and very brittle when red hot thus it is best to work it in its cold state. It is also susceptible to season cracking when worked continually without annealing.

A review of the characteristics of metals will enable the researcher to learn how the various metals under discussion behave under various conditions. It will allow the researcher to know to handle the various metals during the execution of the projects.

2.11 Art Appreciation

Amenuke, Dogbe, Asare, Ayiku and Baffour (1999) described art appreciation as the full awareness of all the good qualities in we see, read, and hear. It has to do mainly with the arts, both visual and performing arts. Appreciation is the intelligent discussion about works of art involving the silent and deep thinking about them.

They are of the view that art appreciation promotes understanding and friendship people of different cultures. It helps us to develop ideas about beauty and see individual artists or unknown arts of a period in relation to the environment and to ourselves.

Appreciation aids us to assess and appraise works of art without passing judgment on them. It helps us to study works of art and try to understand their meanings.

Beckles (2009) is of the view that art appreciation is the knowledge and understanding of the collective and timeless qualities present in art. For him, as an artist, the more you appreciate and understand art from different eras, movements, styles and techniques, the better you can develop, evaluate and improve your own work.

Ask (2008) understood art appreciation as being able to value works of art based upon ones own opinions. It is not necessarily bases upon learned knowledge about art but on ones own perception.

2.11.1 Steps in Art Appreciation

Amenuke et al (1999) are of the view that a work of art may raise questions in our minds when we see, read and hear it. Questions such as what is it? Where does it come from? Where was it made? and Who made it? must be answered intelligently

and in an orderly manner. They enumerate the procedure in art appreciation as follows.

Step 1: Identifying a Work of Art

This step entails stating the work of art, the title of the work, name of the artist, date of production of the work, the size of the work and where the work can be found.

Step 2: Giving Inventory of items in the Work

This involves naming all the objects seen in the work and describing them. The characteristics or features of all the items named in the work must also be made known.

Step 3: Talking about the Technical Qualities of the Work

At this point one talks about the media use by the artist in the execution of the work. The technique or techniques used by the artists must also be stated as well as the nature of the composition.

Step 4: Interpreting the Work

The atmosphere in the work must be stated, items in the work must be related to the cultural background of the artist or the work and the functions of the work must also be stated.

Reviewing literature on art appreciation will allow the researcher to gain a clear sense of direction as to how to appreciate the works that will be produced.

CHAPTER THREE

METHODOLOGY

3.1 Overview

This chapter discusses the methodologies that were employed in undertaking this study as well as the processes and procedure that were used in the execution of the project works. The researcher used the qualitative research method for the study. The experimental and descriptive research methodologies were employed in this project.

3.2 Research Design - Qualitative Research Method

Leedy and Ormrod (2005) stated that the term qualitative research encircles several approaches to research that are quite distinct from each other. He maintained that most qualitative research methodologies focus on two main things. Firstly, they focus on phenomena that occur in their natural settings and secondly, studying those phenomena in all their complexities. He said qualitative research hardly simplifies what it comes across and that qualitative researchers recognize the fact that an issue being studied has various dimensions and tries to portray it in its multidimensional form.

Bernard (1995) and Denzin and Lincoln (2000), all agreed that qualitative research is all about exploring issues, understanding phenomena and answering questions. It is used to gain insight into the attributes of people, behaviours, value systems, concerns, motivations, aspirations, culture and lifestyle. It also seeks out the “why” and not the how of its topic through the analysis of unstructured information.

3.2.1 Experimental Research Method

Sidhu (2003) explained that experimentation is the most scientifically sophisticated research method. It is defined as observation under controlled conditions. Experimental research method studies observable changes that take place in order to establish a course and effect relationship. He further stated that "it is the description and analysis of what will be, what will occur or what can be made to occur under carefully controlled conditions" (p.191). Experimental research consists of the deliberate and controlled modification of the conditions determining an event and in the observation and interpretation of the changes that occur in the event itself.

Experimental research provides a systematic and logical method for answering questions. It is the deliberate and systematic manipulation of certain stimuli, treatments of environmental conditions and observes how the condition or behaviour of the subject is affected or changed. Instead of confining activities to observing and describing what exist in experimental research, one deliberately manipulates certain factors under highly controlled conditions to ascertain how and why a particular condition or event occurs.

3.2.1.1 The use of Experimental Research in the Project

The researcher experimented with various artistic media that are usually not used in the production of metal art works in order to determine their effectiveness. The project made use of materials such as spray paint, acrylic paint, nail polish, coloured pencils and eye brow pencils were applied onto metal art pieces. The metal art pieces

were either polished or allowed to tarnish before the said materials were applied. This was done to determine how the various materials behaved under the various conditions. White glue, PVA glue and Epoxy were also used as adhesives for materials such as paper, wood and sand with the metal art pieces in order to ascertain which adhesive works with which materials.

3.2.2 Descriptive Method of Research

Leedy and Ormrod (2005) opined that descriptive research involves either identifying the characteristics of an observed event or exploring possible correlations among two or more phenomena. They said, descriptive research examines the situation as it is and does not involve changing or modifying the situation under investigation nor is it intended to determine cause and effect relationship.

3.2.2.1 The use of Descriptive Research in the Project

The various materials, tools and the step by step processes that were used in executing the various art pieces were described. This was to give a clear understanding of the processes in executing the works and also to make replication possible.

3.3 Library Research

KNUST libraries, Kumasi, Ashanti library, Kumasi, the Balme library, Legon-Accra personal libraries and the internet were all consulted for information.

3.4 Population for the Study

The population for the study was a heterogeneous one. It consisted of artists from various field including ceramics, painting, sculpture, and textiles.

3.4.1 Target Population

The target population for the study included all mixed media artists within the Kumasi Metropolis.

3.4.2 Accessible Population

The accessible population for the study was made up mixed media artists either pursuing or haven completed postgraduate studies in the College of Art and Social Sciences, final year mixed media artists and mixed media artist at the Centre for National Culture and Mixed Media Studios. A total of seventy-three people were identified for the study.

3.4.3 Sampling Technique

The purposive sampling technique was used to select the final sample for the study. This sampling technique was selected because the researcher wanted only those artists who produce Mixed Media Arts on commercial basis or as project.

3.4.4 Sample Size

In all, thirty-five (35) mixed media artists were selected as the sample for the study and that constituted approximately forty-eight percent (48%) of the target

population. The sample included four (4) artists from Mixed Media Studios, three (3) from the Centre for National Culture, three (3) from the Faculty of Industrial Art and Twenty-five (25) from the Faculty of Fine Art.

3.5 Instruments for Data Collection

Sihdu (2003) described interview as a two-way method of interaction which permits exchange of ideas and information. It is unique in that it involves the collection of data through direct verbal interaction between the interviewer and the interviewee. It requires the actual physical proximity of two or more persons and generally requires that all the normal channels of communication be open to them.

Berg (2007) defined interview as a conversation with a purpose and the purpose is to gather information. Berg stated that there are three main types of interviews namely structured interview, semi-structured interview and the unstructured interview.

Leedy and Ornrod (2005) simply said, interviews go beyond just asking question. They said, the interview guide should be carefully planned and precisely worded in order for it to yield the kind of data that the researcher requires to answer the research questions.

3.5.1 The Construction and Validation of Interview Schedule

A set of questions were written based on the research question.

After the questions had been written, the researcher read through them and struck out those ones that would give only yes or no answers. Typographical as well as grammatical errors were also corrected at this point.

After the researcher had read through the interview question, it was then given to a colleague to read through as well before it was finally given to the supervisor to read through. This was done to make the interview error-free and unambiguous.

3.5.2 Observation

The works of artist were observed to ascertain the types of media they use, how they processed them and the way in which they are administered. The researcher adopted the role of a non-participant observer.

3.6 Primary and Secondary Sources of Data

Primary data were collected through interviews and observations.

Secondary data were obtained from literature, journals and the internet.

3.7 Data Collection Procedure

The interviews were conducted on a one-to-one basis. The researcher asked the questions and the respondents provided answers. The interviews were audio-taped and later transcribed. Copies of the transcript were later sent to the interviewees for them to ascertain whether the information gathered was exactly what they gave out. Observations were also carried out to ascertain the types of media used and the means of processing and administering them.

3.8 Data Analysis Plan

Data collected have been assembled, described, analyzed, interpreted, conclusions drawn and recommendations made. Data have been described in words and where numerical data are used they come in the form of simple tables. All these can be seen in chapter four.

3.9 General Working Procedures

This section deals with the systematic processes that were followed in the execution of the project. The study employed base metal (Copper, **B**rass, Aluminium and Iron Rods) and some non-conventional metal art material such as wood, cow horn, nail polish, sand, insulator from a worn-out fridge, eye pencils, acrylic paints, coloured pencils, leather, paper, spray paint and adhesives in the forming and finishing of art works.

3.9.1 Identification, Collection and Processing of Materials for the Project

Various materials both natural and artificial were collected for the project. Some of them were bought from the market especially the artificial ones. Those that needed to be processed were done accordingly. These included cow horns, wood, sand, the insulator and leather.

i) Wood

A 4x4 inch of ‘Wawa’ was bought from the wood market and lathe turned by the help of a professional at the ‘Sokoban’ wood village. The wood was polished with black

shoe polish and coated with transparent nail polish in order to make it glossy and to protect its surface.

ii) Cow horns

Cow horn was bought from the Kumasi Abattoir popularly called ‘Mayanka’. The undesired parts were sawn off before the horns were boiled on fire to remove the smell from them. After the boiling, the horns were allowed to dry and then filed. Filing was done to remove the outer part of the horns with a rough file. After the filing, the horns were smoothened using a paper cutting knife and then with a grade 150 emery paper.

iii) Sand

Sand was fetched from a heap from a construction site and sieved using a net. This was done to separate the fine sand particles from the coarse ones.

iv) Lagging

The insulator was ripped from a worn-out fridge at the repair shop. This was washed with water to clear off dust particles that had gathered on it. It was then allowed to dry and then carved into an abstract human face with a hobby knife.

v) Leather

Vegetable tanned leather was bought from the market and dyed using the marbling technique. Design was scotched onto some of the leather based on the project it was intended for.

3.10 Designing

Sketches were made for the various projects. Ideas for the designs were developed from natural objects, passages from the bible, words from songs and poems and also from imagination. The various materials available for the projects were also taken into consideration when the designs were being sketched. Corel Draw was also used for some of the designs. Designs were made for works to be made in the round, in relief, as well as in two dimensional forms. The philosophies behind the works were also seriously taken into consideration whiles designing.

Sketches for project 1.

Fig. 1- Mother and Child

Fig. 2 - “D’anasea”

Fig. 3 – Kiss the bride

Ideas for these designs were developed with the human figure in mind. The researcher also took the media available for use into consideration. All the media were procured before the designs were made. A few changes however occurred in the main work.

Sketches for project 2

Fig. 4 Coat of many colours

Fig. 5 Ornamental robe

Fig. 6 Joseph's robe

The story of Joseph, son of Jacob was the inspiration for these designs thus the designs were made in the likeness of a robe.

Sketches of project 3

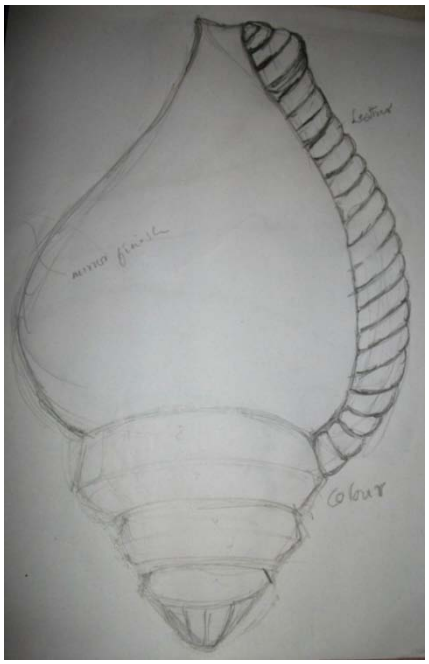

Fig. 7 Snail shell

Fig. 8 Sea shell

The ideas for these designs were developed from shells.

Sketches for project 4

Fig.9 The Vessel

Fig.10 The ornamental pot

Fig.11 Naett

The sketches were made in the form of containers.

Sketches of Project 5

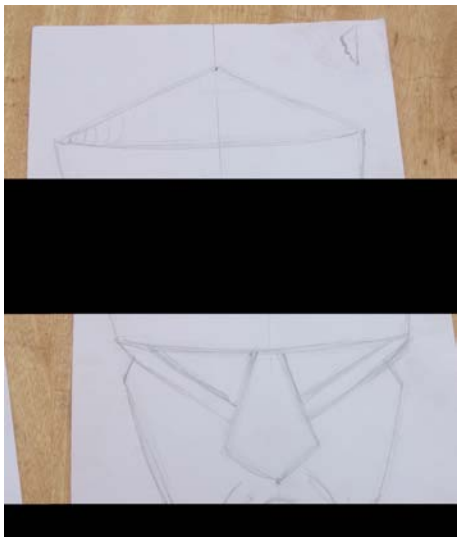

Fig. 12 Him

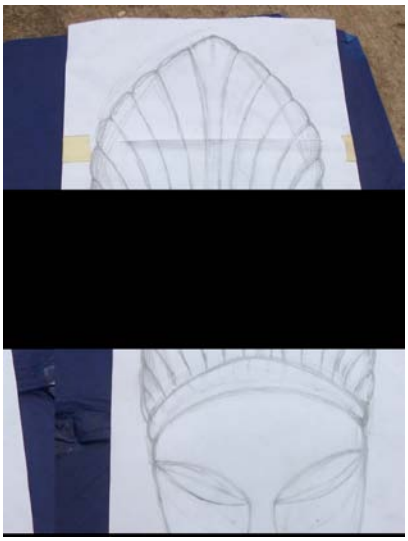

Fig. 13 Her

Fig. 14 He

These designs were developed from human faces, mainly the features of the African.

Other details were added during the actual production of the works.

3.11 The Production of the Main Works

After the designing stage, the actual stage of production of the various projects was next. At this stage various metal working processes were used for the forming of the metal parts of the works. The other non metallic materials were also processes and attached to the metal parts using various techniques and joining materials based on the type of media used. Below are the step-by-step processes that were followed in the execution of the various projects.

3.11.1 Project 1

This project was made of a cow horn, copper sheet, brass sheet, copper tube, graphite and the insulation material from a worn-out fridge. Cow horn was bought from the Abattoir and processed (plate3.1). The horn was boiled on fire to remove the pungent smell from it (plate 3.2). After the boiling, it was allowed to cool. The unwanted parts of the horn were cut off by the help of the hacksaw (plate 3.3). The part to be used was then filed to remove the outer (plate 3.4). After the filing, it was smoothened with a paper cutting knife and finally with emery paper. The bottom part; that is the part of the horn close to the cow's head was drilled to create a seat for the copper tube (plate3.5).

Plate 3.1 The cow horns

Plate 3.2 Boiling the horns

Plate 3.3 Sawing off excess parts

Plate 3.4 Filing the horn

Plate 3.5 the drilled bottom part

Plate 3.6 the final piece .

A disc measuring 10cm in diameter was pierced from a sheet of copper (plate 3.7). After the disc had been pierced out, concentric circles were inscribed on it to serve as a guide for the metal to be raised (plate 3.8). Before the piece was raised, it was first sunk on a block of wood so that it will take a domed shape in order to make the raising on the metallic stake easier (plate 3.9). The metal after sinking, was annealed, pickled, cleaned and then raised on a rounded stake using the anti-clastic method of raising (plate 3.10). The raising was done repeatedly until the desired shape was achieved.

plate 3.7- the disc

plate 3.8- inscribing the cirles on the disc

Plate 3.9 – sinking the disc on a block of wood.

plate 3.10 – raising the disc on a metallic stake.

After raising the copper sheet into a round bottom bowl, a seat was created for the cow horn. This was done by piercing another disc of brass sheet which measured 4.5cm in diameter and domed in a doming block (plate 3.11). When the doming was complete, the edge of the domed piece was smoothened by rubbing it on a grade 80 sand paper (plate 3.12). A copper tube which measures 1.45cm in diameter was pierced to the length of 2cm and soldered into the dome to serve as a seat for the horn (plate 3.13). The seat was now complete and was soldered into the raised copper bowl (plate 3.14).

plate 3.11- doming the disc

plate 3.12- smothening the edge with sand paper

Plate – 3.13- soldering the copper tube into the dome.

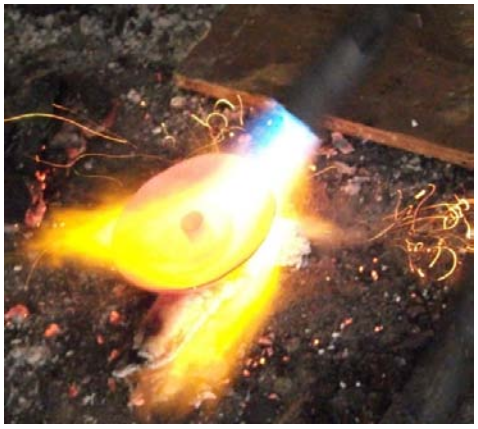

Plate 3.14 – soldering the seat into bowl

Plate 3.15 – the assembly after soldering

A brass disc measuring 7.8cm in diameter was pierced and drilled at its ends (plate 3.16). This was a base on which the whole assembly was to sit. The assembly was thus soldered onto the base (plate 3.17).

Plate 3.16- piercing the base

plate3.17 - soldering the assembly onto the brass base

Plate 3.18- all parts of the base soldered together

The top part of this particular project was also made of copper sheet, brass sheet, copper tube and the insulator. The brass sheet was pierced in to an oval shape. The copper sheet was also pierce into a disc that measured 4.5cm just like the one used for the seat. It was domed and soldered onto the oval brass sheet (plate 3.19). A copper tube was pierced and soldered onto it to serve as a slot in which the top part of the cow horn would be pushed (plate 3.20). That part served as the head of the figure in the project.

The face of the figure was carved from the lagging (plate 3.21). The oval shape that had been pierced earlier was placed on the insulator and cut out using a paper cutting knife It was then carved into an abstract human face using a hobby knife (plate 3.22). After the carving, it was then glued into the “head” of the figure using Formica glue (plates 3.23 and 3.24).

Plate 3.19 – soldering the dome and oval

plate 3.20- soldering the tube, dome and the oval plate

plate 3.21 – The cut-out lagging

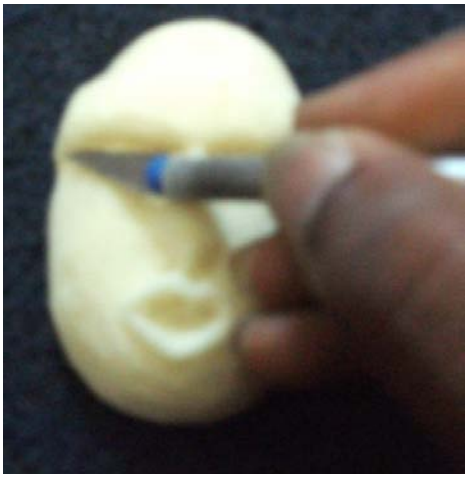

plate 3.22- Carving the lagging

Plate 3.23 –Applying the glue

Plate 3.24–Stickling the lagging to the oval to form the “head”

When the glue hardened, the metallic part which comprises the copper tube and dome soldered onto the oval brass shape was decorated with the graphite of a 6B pencil. It was then coated with a transparent nail polish to make it permanent. The lagging, from which the “head” of the figure was carved, was painted with acrylic paint and nail polish (plate 3.25). The horn was glued into the seat created for it with epoxy. The whole work was glue onto the lathe turned wooden base which had been treated with shoe polish with epoxy and reinforced with screws (plate 3.26).

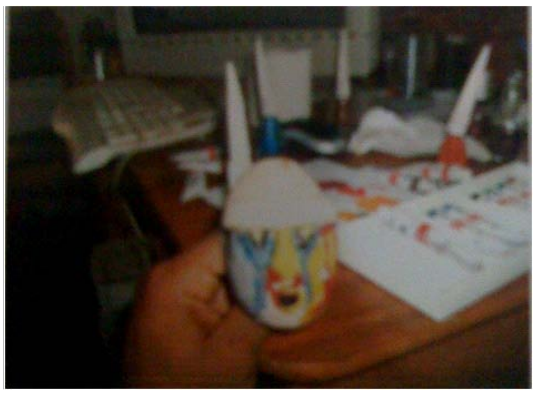

Plate 3.25 Painting the face

Plate 3.26 The base of the work

Plate 3.27 The finished work

3.11.2 Project 2

This project was made up brass, wood and different colours of nail polish and correction fluid. After the design was selected, it was constructed on paper by technical drawing (plate 3.28). The constructed design was then pasted on a 1.2mm sheet of brass and pierced out (plate 3.29). After piercing, the sheet was annealed, formed on a stake into a conical shape and then soldered (plate 3.30). It was then put back onto the stake and well rounded into a proper cone. The top part of the work, which is the narrow part of the cone, was raised on the curved stake using the synclastic raising technique (plate 3.31) whiles the broader part of the cone was raised anticlastically. After the raising, the work was polished with emery papers with the help of a flexi shaft (plate 3.32). When the polishing was done, the narrow part of the cone was marked according to the design (plate 3.33). The marked portions were then punched with a nail, drilled through and then split into two (plates 3.34 and 3.35). The work was then annealed after it was split (plate 3.36) and then it was further raised using the synclastic raising method for it to resemble the collar of a shirt (plate 3.37). When the raising was done, the work was painted with the nail polish (plate 3.39) allowed to dry before the yellow shoe lace was glued onto it. A smaller shoe lace also passed through the drilled holes and the whole work then mounted onto a lathe turned wooden base (plates 4.7 and 4.8, p.80).

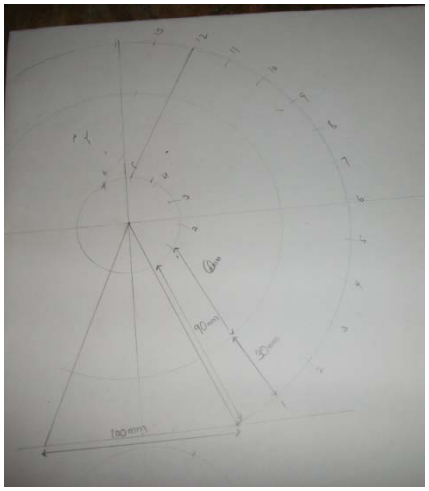

Plate 3.28 – The technical drawing

Plate 3.29 – Piercing the cone

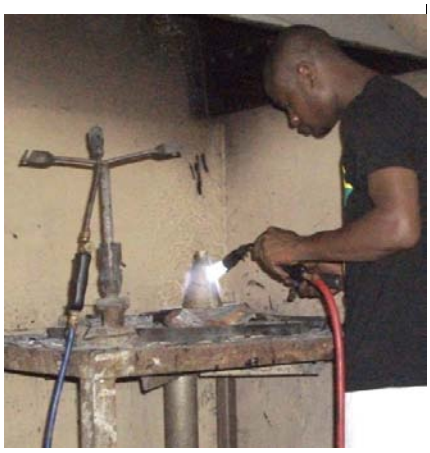

Plate 3.30 – Soldering the cone

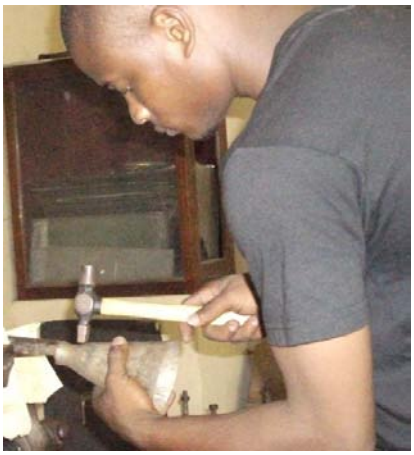

plate 3.31 – Raising the narrow part of the cone

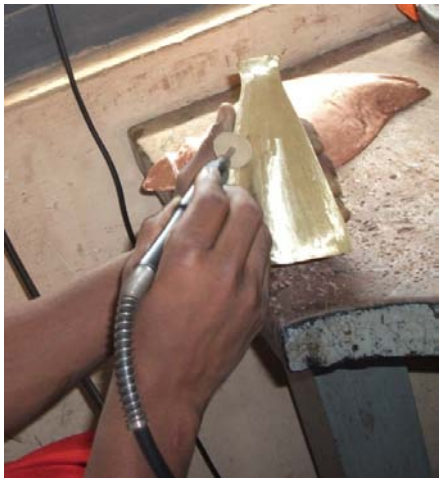

Plate 3.32 – Polishing the work

Plate 3.33 – The marked work

Plate 3.34 – Drilling the marked portions

plate 3.35 – Splitting the work

Plate 3.36 Annealing the work

Plate 3.37 – Raising the work on a stake

Plate 3.38 – The work after raising

Plate 3.39 – Applying the nail polish

3.11.3 Project 3

The project was executed usinge the embossing, chasing and repousse techniques. Wood was procured from the Sokoban wood village and taken to the machine shop to have it planed. The selected design was then traced onto the wood in the reverse. The design was then carved into the wood. The outlines of the design was carved with the V-gourge (plate3.40) and then scooped out with a C-gourge (plate 3.41). The wood was scooped until the desired depth was reached. It was then sanded with a grade 80 sand paper.

Plate 3.40 – Carving the outlines

Plate 3.41 – Scooping the wood

1.2mm copper sheet was used for the embossing. The sheet was annealed (plate 3.42) quenched, cleaned and fastened to the wood (plate 3.43. The work was first pushed with a rubber mallet (plate 3.44). The pushing was done until the metal touched the base of the wood. It was then removed, annealed and placed back into the wood. The work was further pushed with a wooden punch by hitting with a wooden mallet (plate 3.45). This was done until the metal reached the entire depth of the carved design. It was then removed and annealed.

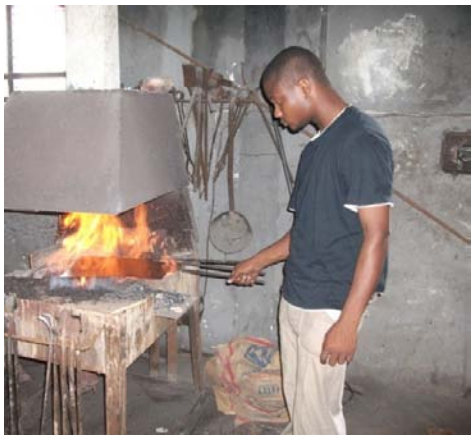

Plate 3.42 – Annealing the metal

Plate 3.43 – The metal fastened to the wood

Plate 3.44 – Pushing with a rubber mallet

Plate 3.45 – Pushing with a wooden punch

Pitch was prepared and poured into the embossed piece. Pitch is a mixture of asphaltum and plaster (P.O.P). The asphaltum was broken into pieces and placed on fire. When it melted, the plaster was poured into it and mixed until the mixture hardened. It was then poured into the embossed work and then kept overnight for it to cool down (plate 3.47).

Plate 3.46 – The work after pushing

Plate 3.47 – The pitched work

The work was chased when the pitch cooled. Parts of the work which were not carved into the wood were drawn onto the work itself (plate 3.48) and chased out (plate 3.49). Those parts which were carved out were further defined using the chasing technique. After the chasing, the whole work was planished to smoothen it, using the planishing hammer. Excess metal was then pierced off (plate 3.51). Rugged and sharp edges were then filed (plate 3.52) and the work was polished with a grade 240 emery paper (plate 3.53). A locking mechanism and holder were then prepared for the work. The locking mechanism was then soldered to the back of the work.

Plate 3.48 – Marking the work

Plate 3.49 – Chasing the work

Plate 3.50 – The work after chasing

Plate 3.51 – Piercing off excess metal

Plate 3.52 – filing off rough edges

Plate 3.53 – polishing the work with emery

After the metallic part of the work was completed, leather was purchased from the market and dyed. The inner part of the leather was sanded to remove excess flesh from it. Iit was then pounded in a wooden mortar to soften it (plate 3.54) and in its wet state, it was used to cover the metal work and allowed to dry (plate 3.55). Upon drying, part of the leather was trimmed off, exposing part of the metal (plate 3.56). The leather was then removed from the metal work, excess parts trimmed off and glued back onto the metal permanently. The exposed part of the metal was the coloured with 6B pencil and eye pencils (plate 3.57).

Plate 3.54 Pounding the leather

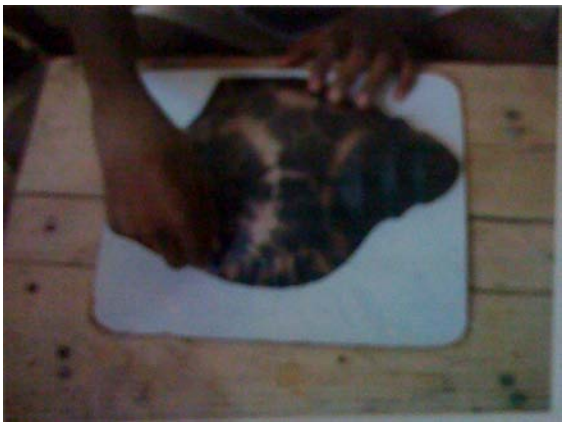

Plate 3.55 Covering the work with leather

Plate 3.56 Trimming off excesss leather

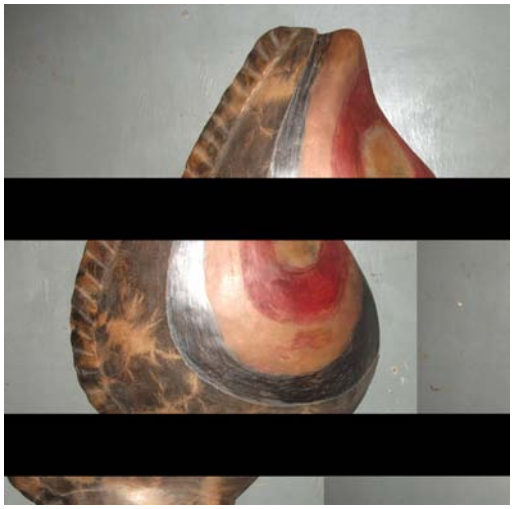

Plate 3.57 The finished work

3.11.4 Project 4

Basic hand forming techniques of piercing, soldering and raising were employed in the production of this work. The shape of the design comprised two conical shapes. The cones were constructed using the technical drawing method. The designs were paste onto a sheet of brass (plate 3.58) and pierced out (plate 3.59). After piercing, the cones were formed on a stake before their joints were soldered (plates 3.60 and 3.61). After separately soldering the two cones, they were well rounded on the conical stake. The edge of the bigger cone which is the top part of the work was slightly raised to serve as a place to fit the cover which was carved out of cow horn (plate 3.62). A base was soldered for the bottom part of the work before the two parts were soldered together (plate 3.63). After the soldering, excess metal was pierced off and the work was filed (plate 3.64). It was then polished with a grade 240 emery paper, just like the other works earlier talked about.

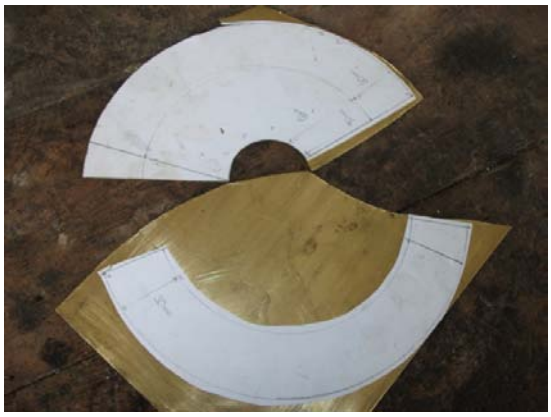

Plate 3.58 – The design on the metal sheet

Plate 3.59 – Piercing the parts

Plate 3.60 – Forming the cone on a stake

Plate 3.61 – Soldering the joint

Plate 3.62 – Raising the edge of the top cone

Plate 3.63 – Soldering the two parts together

Metallic spray paint was sprayed onto the bottom part of the work and kept overnight for it to dry (plate 3.65). When it dried, a design was drawn on the sprayed part using an Hb pencil (plate 3.66). The design was then cut out with a hobby knife to expose portions of the metal (plate 3.67). The original intention for this work was to decorate the top portion of the work with sand and paper. Sand was therefore gotten from a construction site and sieved to obtain the fine particles for the work (plate 3.69).

Plate 3.64 – Filing off excess metal

Plate 3.65 – Spraying the work with spay paint

Plate 3.66 – Drawing the design with pencil

Plate 3.67 – Cutting out the design with a knife

Plate 3.68 – The pre finished design

Plate 3.69 – Sieving the sand

Masking tape was put on the whole top part of the work and the design was drawn on it (plate 3.70). The part of the design meant for the sand was cut out and peeled off (plate 3.71). Glue was then applied to those potions (plate 3.72). The fine sand was then sprinkled onto the work and left to set (plate 3.73). After the work had been left overnight, it was discovered that, the sand could not adhere properly to the metal. That portion was then peeled off (plate 3.74) and the design was redone with egg shell paper and spray paint.

Plate 3.70 – Tracing the design on the work

Plate 3.71 – The cut out design on the work

Plate 3.72 – Applying glue to the work

Plate 3.73 – The sand sprinkled onto the work

The masking tape was again used to mask the work and the design drawn onto it. The part for the spray paint was peeled off and sprayed (plate 3.75). It was then allowed to dry. The rest of the masking tape was then peeled off. The design was then drawn onto the eggshell paper and cut out (plate 376). It was then glued into place on the metal work (plate 3.77).

Plate 3.74 – Peeling off the sand

Plate 3.75 – The work resprayed with spray paint

Plate 3.76 – The cut out eggshell papers

Plate 3.77 – The whole piece put together.

3.14.5 Project 5

This project is made up of three masks code named *He, Him* and *Her*. The works were produced by embossing, chasing and repousse, painting and macrame. As with every work of embossing, woods weer first purchased , the designs traced onto them and carved (plates 3.78 and 3.79). When the carving was completed, the carvings was smoothened with sand paper.

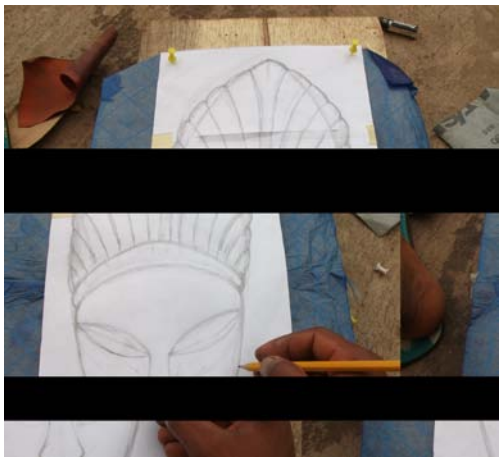

Plate 3.78 – Tracing the design

Plate 3.79 – Carving the design

The metals for the works were annealed and fastened onto the carved pieces of wood (plate 3.80). *He* and *Him* were done in brass whiles *Her* was embossed in copper. After the embossing, the works were filled with pitch for the chasing to begin. Instead of a combination of Plaster and asphaltum for the pitch, bee wax was used. The wax was melted and poured into the works and left overnight to dry. When the wax dried, the chasing was done (plate 3.82). All the facial details of the works were chased out. *Him* was however chased without a nose and forehead. The nose was carved out of

lagging and placed onto the work with epoxy while the forehead was carved out of a low density foam (plate 3.84).

Plate 3.80 – Fastening the metal onto the wood

Plate 3.81 – Embossing the work

Plate 3.82 – Chasing the facial details

Plate 3.83 – The painted work

On the completion of the chasing, the edges of the works were drill and excess metal at the edges trimmed off. The works were then painted in acrylic paint. With cotton cords and iron rods, the works were framed using the macrame technique (plate 3.84). *He* and *Him* were knotted using the sqaure knots whiles *Her* was knotted in Josephine Knots (plates 4.9, 4.10 and 4.11, p.83). The surface of the masks that were painted in

acrylic were then coated with finger nail hardener to harden the acrylic (plate 3.85), make it glossy and prevent it from peeling off at a latter date.

Plate 3.84 – Framing the work using the macramé technique

Plate 3.85 – Coating the work with a finger nail hardener

CHAPTER FOUR

PRESENTATION AND DISCUSSION OF FINDINGS.

4.1 Overview

This chapter analyses, discusses and interprets the results of the research conducted. The analysis is in two parts; the discussion of results obtained through the interview of mixed media artists on the nature of mixed media art and the discussion of the individual works produced by the researcher using mixed media. The works are discussed in their philosophical, educational, technical, cultural and social contexts.

4.2 Participant Demographics

Educational background	**Number of Respondents**	**Percentage (%)**
Postgraduate stud./Graduates	18	51.43%
First Degree holders	10	28.575
Undergraduates	7	20.%
Total	**35**	**100%**

Table 1 categories of respondents.

Painting	20	51.14%
Sculpture	8	22.86%
Ceramics	1	2.86%
Textiles	1	2.86%
Metals	1	2.86%
IRAI	4	11.43%
Total	**35**	**100%**

Table 2 Respondents areas of specialization.

4.3 The Nature of Mixed Media Art.

Through the interviews conducted on the nature of mixed media art, all respondents were of the view that mixed media art is mainly concerned with the use of different types of material in the composition of a single work or on a single support be it two-dimensional or three-dimensional. The views expressed by the respondents on what mixed media art is, confirmed definition of mixed media art by Hagger (as cited in Adjei, 2007) and Hobbs (1985) reviewed earlier in Chapter Two of this report.

Pertaining to the types of materials that when used in a work would qualify it as mixed media art, the respondents were of the view that the materials must not necessarily be so distinct from each other. This means that different media having related physical, chemical and mechanical properties or characteristics can be combined to produce mixed media art. “You can combine copper, brass, aluminium and iron to produce a work and that is mixed media art. In the same way, you can

integrate metal, wood, paint, paper and leather in the production of a work and that is also mixed media art" (C.Adala, personal communication, 9th September, 2009). For this respondent, once the media in the work can be distinguished from each other by certain properties, the work qualifies as a mixed media work whether the media belong to the same group of elements or not.

It also came to light through the interviews and observations that the combination of different materials in the production of a single work translates into the combination different technique in the production of the work. For this reason, mixed media art can broadly be said to be the combination of different materials and techniques in the production of a single work of art. This is in agreement with Hobbs (1985) who maintained that mixed media art covers all those works of art that defy the traditional use of materials and methods in its production, combining two or three dimensional approaches. When different media are used in a single work of art, it takes different techniques to process and administer the media. "In my work, I sometimes carve foam or lagging, glue it onto my canvass and paint. That is a combination of media, which is foam or lagging and acrylic as well as techniques in carving and painting in executing the work" (E. Konadu, personal communication, 14th September, 2009).

Fixing a work made with a single medium to make it permanent was not considered as mixed media art by any of the respondents. This is because a fixative does not alter the physical appearance of the work even though it makes the work last longer when used on it. "Coating my Chalk pastel work with varnish does not change the medium used into something else even though it becomes permanent. I therefore would not call it a mixed media work if it is not already composed of different materials before

the application of the fixative" (E.K. Agyemang, personal communication, 14th September, 2009).

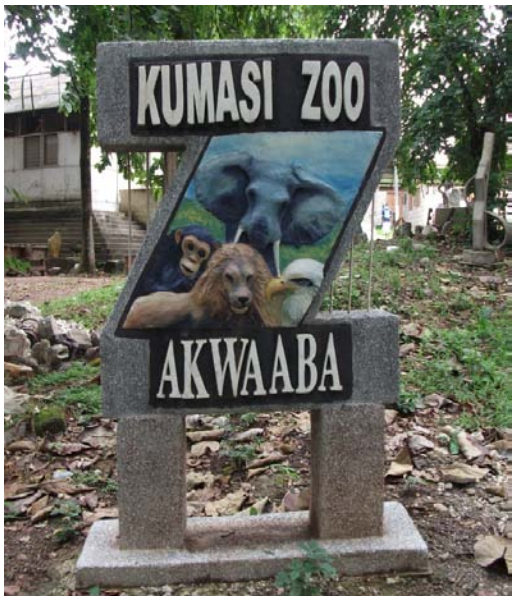

Plate 4.1 "Akwaaba" courtesy-Sculpture section, KNUST.

Plate 4.2 "Asetenapa" courtesy – E.K Agyemang)

Plate 4.3 Unity, courtesy – E.K. Agyemang)

Plates 4.1 – 4.3 are examples of mixed media art. Plate 4.1 is a Sculpture piece located at the sculpture section of KNUST. It is composed of Terrazzo Chippings and Acrylic paint. Plate 4.2 is made up of a Ceramic pot, saw dust, cardboard and acrylic paint and 4.3 is a collaged piece done on canvass. Its composition is made up of Bamboo, Calabash, Goatskin, Lagging, Acrylic paint, printing paste and Textile fabrics.

4.4 Designation of Mixed Media Art

The question of whether mixed media art can be categorized under the various genres of art generated mixed responses. The researcher wanted to know whether mixed media art can be categorized as mixed media in Painting, mixed media in Textiles, and mixed media in Ceramics and so on. Twenty-Eight (28) of the respondents representing Eighty percent (80%) of the sample were of the view that mixed media art can be categorized under the various genres depending on the background of the artist and the dominant medium that features in the work. For these respondents, the presence of a dominant medium in a work qualifies that mixed media work under a particular genre of art. It was also pointed out that the dominance of a particular material in a work of mixed media is influenced mainly by the speciality of the artist. For instance a ceramic artist producing mixed media art is likely to use more of clay which is the traditional ceramic material and so would a painter and metal artist use more of paint and metal respectively. “Every mixed media art has a base and that is dependent upon the speciality of the artist at work”, (K. Adjei personal communication, 5th February, 2010).

The rest of the respondents (6, representing17.14%) were however of a different opinion. For this group, once the work is composed of a variety of media, its designation remains just that; **mixed media art**. One respondent commented that once a work is composed of different materials; “it cannot be categorized as mixed media in anything, what if the materials used in the execution of the work are of equal proportions?’

Mr**.** K. A. was the only respondent who did not take side with this issue. For him, the designation of mixed media art solely depends on the media used in the work and has nothing to do with an artist’s background. “If the work has about eighty percent (80%) of a particular material in its composition, it can comfortably be called mixed media of something. On the other hand if the composition of the work is made up of equal proportions of media, it cannot be called mixed media of anything” Mr.K. A. concluded.

4.5 Mixed Media Art versus Multi Media Art

As to whether the terms mixed media art and multi Media art mean the same thing or are different, opinions from the majority of the respondents was that the two terms were different with multi media art covering a wider scope than mixed media art. This was in agreement with McNitt (2008) who opined that mixed media in the visual art refers to an art work in the making of which more than one medium has been employed whiles multi media art implies a broader scope than mixed media art. According to him, multi media art combines visual art with non-visual art elements

such as recorded sound or with elements of performing arts such as drama, dance, motion graphics, music and interactivity.

On her part, Miss A. supported McNitt when she said "a perfect example of multi media art in Ghana is the wearing of costumes by Masqueraders on the streets of Takoradi amidst drumming and dancing and the collection of monies"

For Miss A. and all those who share her views, the costumes worn by the masqueraders alone is a work of mixed media because it has various fabrics in its composition whiles its combination with the drumming and dancing constitutes multi media art because drumming and dancing are elements of performing arts.

Contrary to this view Adjei said "for me it is just the use of words, whether mixed media or multi media, it all boils down to the same thing" (personal communication, 5th February 2010). In the case of this respondent, the two terms can be used interchangeably. It also means that for him, mixed media art and multi media art are the same whether it combines visual art and performing arts or not.

4.6 Advantages of Mixed Media Art

- Mixed media art allows artists to achieve variety in their works in terms of materials.
- Artists learn to work with different materials that are not traditional to their areas of specialization.
- Working in mixed media enhances the creativity of artists as they are able to put various media together to achieve unity and harmony in their works.

- Artists learn to plan better by being able to put different materials together in a single work of art.
- The ability to work with different media in a single work of art helps artists to relate more socially with other human beings.
- Working with mixed media helps to mop up some of the waste in the system by making good use of materials that would otherwise end up on the rubbish dump.
- It helps artists to achieve three-dimensional effects on two-dimensional works.
- Cost of doing art is reduced especially when more odds and ends are used. This is because they can be obtained at less or no cost at all.

(Data gathered from interviews and observations)

4.6.1 Disadvantages of doing mixed media art

- Doing mixed media art can be time consuming as it takes a lot of careful planning to be able to do a good work.
- When so much of synthetic media are used, cost of doing art increases significantly as all the materials will have to be purchased.
- When time is not taken to put the various media together, the work looks very tacky.

(Data gathered from interviews and observations)

4.7 Appreciation and Discussion of Works

Appreciation is the full awareness of all the things we see, read and hear and it has to do mainly with the arts. Appreciation is the intelligent discussion about works of art, a silent and deep thinking about them. It entails every thing in art that can be enjoyed. Appreciation enables us to assess and appraise a work of art without passing judgment on it. It involves studying a work of art and trying to understand its meaning.

Plate 4.3 Plate 4.4

Title: Naett
Dimension: 18cm x 10.5cm x 7.5cm
Media: Brass, Copper, spray paint, cow horn, eggshell paper.
Year: 2010

4.8 Naett

Naet is a metallic mixed media work made from brass, copper, spray paint, cow horn and eggshell paper. The work is made of two cones joined together. It was fabricated using the hand forming technique, soldering and synclastic raising. The work is decorated with spray paint and eggshell paper on the top part and the bottom part is decorated by cutting out the design and inscriptions from the spray paint using a sharp tool. This is done in such a way that when the work sits upright, the inscriptions are turned upside down. This means a viewer will have to bend down in order to read and by doing so, becomes part of the work. The cover of the work is carved out of cow horn.

The inscription on the work reads ***"coin of gold, shining coal, you my night, my sun".*** This was adopted from the poem titled *I will pronounce your name* written by

Leopold Sedar Senghor. The researcher used the colours yellow and black to bring contrast into the work and also as a result of the inscriptions on the work, quoted above.

The success of this integration confirms the fact that metal art can be decorated with paper, fabrics, paints and other found objects.

4.8.1 Interpretation of Results

The work is inspired by Senghor's poem *I will pronounce your name.* In this poem, the poet declaims his love for Naett. At a point Naett is described by the poet as ***"coin of Gold, shining coal, you my night my sun"***. The work depicts the fact that life is full of ups and downs. There will always be challenges and difficulties in every aspect of life we find ourselves. In relationships, one find lovers enjoying themselves at a time and at the next moment are at each others throats. The person with whom one finds happiness is the same person who gives sadness and sorrow hence the inscription at the bottom part of the work which signifies that life can be glittering as a coin of Gold and bright as the sun but at other times black as a coal and dark as night. It is therefore important for us to recognize the fact that we cannot find all what we desire in what we have and must brace ourselves for the odds that come with them. Life is not all roses, for roses have thorns.

Plate 4.5 plate 4.6
Title: D’anase
Dimension: 28cm x 9cm x 9.5cm
Media: brass, copper, cow horn, lagging, screws, graphite, acrylic paint, shoe polish, wood and nail polish.
Year: 2010

4.9 “D’anase”

This is a mixed media work that is composed of brass, copper, wood, screws, lagging, cow horn, nail polish, acrylic paint, shoe polish and graphite from a 6b pencil. The figure slightly bends forward and is without limbs. The head is slightly raised upwards in line with the manners in which most Christians give thanks to God by raising their heads and looking into the sky. The “bowl” in which the cow horn sits is fitted with a domed brass that serves as a seat for the horn.

The bowl itself is soldered onto a brass disc and tilted lightly to bring movement into the work. The brass disc on which the “bowl” is soldered has been foldered at the edges so that it falls onto the lathe turned wooden base on which the whole figure sits. The figure is fixed onto the wooden base with epoxy and reinforced with screws.

The face of the figure is decorated with acrylic paint and nail polish. The back of the head, which is made from a combination of brass and copper, is decorated with graphite of a 6b pencil. This was done when the metal were tarnished and coated with a hardener and so is the “bowl”. The lathe turned wooden base is treated with black shoe polish. The metallic parts of the work were fabricated using a combination of the piercing, soldering, doming and the synclastic raising techniques. The synclastic raising technique used here allowed the researcher to form a flat disc into a bowl shape, and the raising was done in one direction (Goods 1997, Krause 2006, Herman 2000, and Hurt 2003).

The whole figure represents a disabled person giving thanks to God despite the disability.

4.9.1 Interpretation of Results

The work was inspired by the story of Pastor Nick Vucinic, an American preacher who was born without limbs. In spite of all the odds against him, he did not despair and has lived a fulfilled life. He preaches the gospel of God and does most household chores on his own. He receives telephone calls, swims and types 43 words per minute which most of us able bodies cannot do.

Mr. A.B. Crentsil and Nana Fynn, two renowned Ghanaian musicians sang songs admonishing us to give thanks to God in all situations we find ourselves. There are people who have all the odds in life against them yet they always glorify God for their situations. Why then should able bodied human being be cussing God because they

do not have all that they desire in life or have some things not going on well for them in life? The bible says, in everything, give thanks to God.

Plate 4.7 Plate 4.8

Title: Coat of many colours
Dimension: 17.5cm x 8.8cm x 5cm
Media: brass nails polish, correction fluid, wood, shoe polish, shoe lace.
Year: 2010

4.10 Coat of Many Colours

This metallic mixed media work is made up of brass, nails polish, correction fluid, wood, shoe polish and shoe lace. The work has a conical shape looking like a shirt. The conical shape was pierced, foldered on a stake and soldered with a brazing rod. The bottom part of the work was raised a bit to give it a rounded shape whiles the top portion was split into two, drilled and anticlastically raised to make it look like the collar of a shirt.

The piece was then coloured with the nail polish and correction fluid which is the white colour in the work. A round yellow shoe lace was passed through the drilled holes. Flat yellow lace was also glued onto the work thus dividing it into three

sections. Wood was lathe turned to fit into the bottom part of the work. The wood was treated with black shoe polish and glued into place using epoxy.

The whole piece is an imaginary composition of Joseph's richly ornamental robe given to him by his father in Genesis chapter 37. This ornamental robe is also described by Dolly Patton as *the coat of many colours*, which is the title of the work.

4.10.1 Interpretation of Results

The work, coat of many colours, represents the kinds of hatred, opposition and predicaments people are faced with as a result of their personal dreams just like what Joseph went through at the hands of his own brother which was a blessing in disguise. It has become a common phenomenon for people with dreams to build their own capacity to improve their lives to face stiff opposition form friends, colleagues and superiors.

When teachers who are unable to access the government's quota system of study leave decide to further their studies with their own resources, they are faced with all kinds of problems. Their names are either deleted from the pay rolls of their schools or embargoes are laid on their salaries or they are transferred far away from their institutions of study. These are all attempts to frustrate their plans to build their capacity, a phenomenon known in Ghanaian circles as "pull him down" (PHD). To worsen matters; the Ghana Education Service also refuses to reinstate such people into active service. Just like the sale of Joseph into slavery became a big blessing for him and the world at large, so shall the treatments meted out to teachers and other groups of workers in an attempt to destroy their plans of fulfilling their dreams end up

being blessings for them. The reward for their efforts shall be as colourful as Joseph's ***Coat of many colours.***

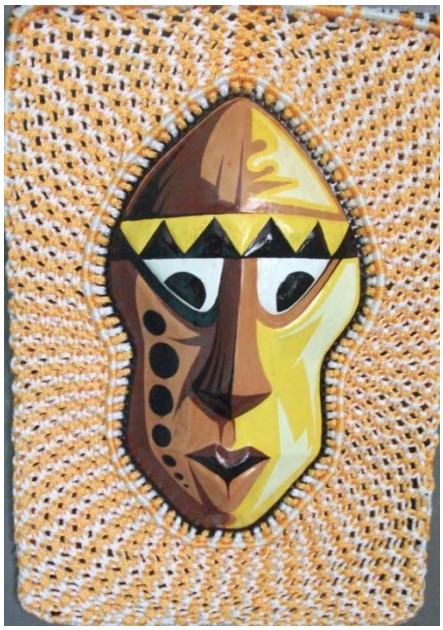

Plate 4.9 - He

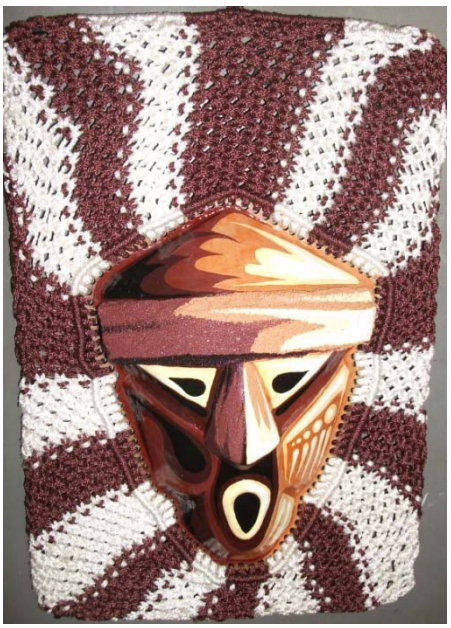

plate 4.10 – Him

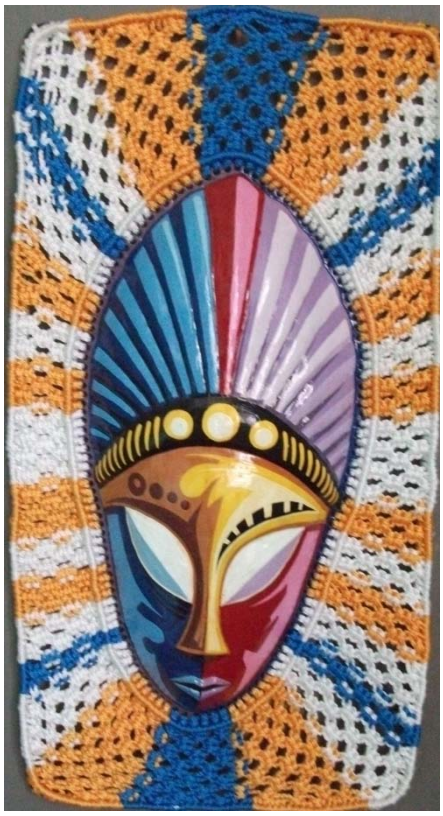

Plate 4.10 – Her

Title: Faces
Dimensions: He – 40cm x 27cm x 4cm

Him – 40cm x 27cm x 5cm
Her – 52cm x 27cm x 4cm
Media: He – brass, acrylic paint, cotton cords and iron rod
Him – brass, acrylic paint, cotton cords, lagging, foam, and iron rod
Her – copper, acrylic paint, cotton cords, and iron rod.
Year: 2010.

4.11 Faces

Faces are a threesome mixed media work, comprising three different masks namely **He, Him** and **Her**. The works were all executed using the embossing and chasing and repousse techniques. He and Her were embossed and their facial details chased out entirely in brass and copper respectively. Him was however produced without the forehead and nose in the same material. The nose was carved out of lagging and the forehead from low density foam. They were stuck onto the work using epoxy.

All three masks were painted in acrylic paint covering the surface of the metals thus hiding the original materials from which the works were made. Cotton cords were used to frame the works using the macramé technique. The cords were also wound around 3/8 inch iron rod frames. The frames for He and Him measured 10 x 15 inches each whiles the frame for Her measured 10 x 20 inches. The works were all coated after the paintings were done with a fingernail hardener to prevent the acrylic from peeling off and also to make the works glossy.

The works were painted in multi colours especially Her. This was done to emphasis the complexity of the human being especially the female specie. He and Him were made with angular features especially the cheeks and jaw, characteristics of the male figure. Her was however given rounded features, also characteristic of the female figure.

4.11.1 Interpretation of Results

“There is no art to find the minds construction in the face” (William Shakespeare). A person’s facial appearance has nothing to do with the way he/she thinks, acts and behaves. The fact that a person has big lip does not mean he/she is a gossip or saucy. A beautiful/handsome face does not necessarily translate into kind heartedness, humility or meekness of a person. Ugliness of a face, no matter how it is define also does not necessarily mean the person is a rogue or mischievous.

Many at times, people we think we know do things that we think they could never have done. This baffles our minds so much so that, we begin to ask; “you of all people?”, “what has become of you?”, “is this the same person I knew a while ago?” There have been increasing reports in the media about Ministers of God engaged in sexual relationship with church members, fathers sleeping with their own children and prominent and respectable figures in society engaged in frauds, drug deals and other unscrupulous activities that they would otherwise not be profiled for.

All the scenarios stated above backs the statement by William Shakespeare in his book titled Macbeth. In order to know people’s true characters, one must get close to them and not judge them from afar based on their appearances.

Plate 4.11
Title: Beauty in Nature
Dimension: 29cm x 19cm x 3.9cm
Media: copper, brass, marble dyed leather, paper, wood and screws
Year: 2010

4.12 Beauty in Nature

Beauty in Nature is a mixed media piece made of copper, brass and marble dyed leather. The metal was fashioned using the embossing technique. The details were brought out using the chasing and repousse techniques. The work was covered with leather before a portion of the leather was trimmed off, exposing part of the metal. The holder for the work was made from copper and brass and screwed onto a piece of wood covered with paper. The leather was glued onto the metal with the help of Formica glue locally called solution.

The part of the metal that was not covered with the leather was painted with eye pencil thus eliminating all forms of polishing and buffing.

4.12.1 Interpretation of Results

Many at times, when students are tasked to design, most would end up copying other people's designs from books, clip art and online. This is a clear demonstration of lack of ideas on the part of students.

The design was made from the shape of a sea shell and manipulated a little to make it different from the actual object. Nature is endowed with an unlimited variety of objects from which ideas can be developed from to make designs. Cars such as Barracuda (smiling Benz) and VW beetle were all developed from natural objects.

The work thus admonishes students to make nature a source to develop ideas for their designs and not copy what already exists.

4.13 Findings from Media and Techniques used

- Nail polish sets well on all metal surfaces; whether mirror finished or matte. It however does not cover heavy dents on metals thus such dents must be removed through filing and polishing before the polish is applied. Applying it requires a lot of patience as one colour must be allowed to completely dry before the next one is applied. When this is done, any type of design can be done on metal surface using nail polish. The polish dries quicker than all other pigments used for any of the works. It however does not permit blending of colours like acrylic paint and mistakes can be removed using the nail polish remover. The nail polish can be used to colour the surface of metal as an alternative material to enamel which is quite expensive and not readily available on the Ghanaian market.

  One advantage that the nail polish has over enamel as the traditional colouring medium for metal is that the polish is applied cold and does not require any form of heat. Enamel however does not work on brass because brass contains zinc which cannot withstand much heat. Enamel melts at a temperature of 900 degrees Celsius and at that temperature, zinc would have evaporated from the metal, leaving holes in it. The polish, when applied must be hardened to prevent it from scratching when it comes into contact with a hare surface.
- Correction fluid did not adhere well onto the metal surface. It easily cracks upon drying and pops off from the metal surface. It also easily discolours on drying. It is therefore not a good material to be used directly on metal.

- Graphite from pencil is a good material for decorating and coating the surface of base metal. The graphite works particularly well on metals with tarnished
- surfaces. It appears faintly on metal surfaces that are not tarnished. Graphite from soft pencils (the B range of pencils) made better impressions on metal surfaces than graphite from hard pencil (the Hb pencils). To make impressions made by the graphite permanent however, it must be fixed with varnish or a hardener.
- Paper sets well on any metal surface once the right adhesive is used. The set back in using paper on metal is that, it can easily be ripped off or get dirty when the work is taken through constant handling.
- Acrylic paint is a very good material for decorating metal surface. It can easily be blended. It can be applied thickly on metal. It is able to cover most dents made by tools on the surfaces of metal during fabrication. One does not need to polish the surface of metal works with abrasives such as sand and emery papers to remove dents and tool marks. It is good to allow the paint to dry coolly in air when using it to paint on metal. It must also be coated with varnish or hardener to prevent the paint from peeling off at a latter date.
- In order to make cow horn easy and comfortable to use, it must be boiled for about half-an-hour. Boiling it removes the pungent smell from it and also makes it tender for sawing and filing. It must not be dried directly under the sun as this causes it to crack and peels off when being sawn or filed.
- Spray paint must be shaken very well before spraying onto metal. It takes between three to five minutes to dry under the sun. It does not adhere well on

- surfaces with rust, wax, grease, scale and other foreign matter on it. The material exposes dents on metal surfaces when it is sprayed over them. Dents must therefore be removed from the surface on which this material is to be used. Designs can be cut through the spray paint using any sharp tool. Blunt tools give rough edges to designs. The material is so vulnerable that the slightest contact it has with a hard surface will caused it to scratch or peel off. Care must be taken when cutting designs from the spray paint as any rush can cause the material to peel off thus destroying the whole design. It is water resistant but easily dissolved by other solvents such as thinner and PVA glue. It must also be fixed to make it permanent.
- Eye pencil colour metal no matter the surface condition of the metal. The material however does not dry even when it is hardened and therefore cannot be used for works that are meant to be permanent.
- Wood glue cannot be used to glue any material permanently onto metal. Any little attempt to peel off materials adhered onto metal with the wood glue will actually peel the off without destroying it.
- Bee wax can be used in place of asphalt as pitch for chasing. The wax is however very soft and can cause the work to deform during chasing. It also cracks easily upon drying especially when it contains a lot of dirt.

4.14 Effects of Incorporating Mixed Media into the Production of Metal Art

The incorporation of mixed media in the production of metal art has certain effects on works produced using them and on the artist as a whole. Discussed below are the effects that mixed media have on the projects undertaken in this study.

4.14.1 The Cost and Time factors

There is no clear limit concerning the amount of time and money that can be spent in doing mixed media art. The fact that a work is produced in mixed media does not make it more or less expensive and time consuming than works produced in single medium. The cost and time spent on a work depends largely on the types of media used and the extent to which they are used. A mixed media work done with predominantly natural media is likely to be less expensive and less time consuming than that made of mainly synthetic media or work done in a single material.

The works titled ***faces*** (plates 4.9 – 4.11) which are an all synthetic mixed media art took more time to do and it also cost the artist more money than if it was made in metal alone. The work was made by embossing the metal, painting them with acrylic and incorporating macramé into them. All these processes are take time to complete. The cost and time of the work becomes much in a case where the artist is not equipped enough to undertake all the processes involved in the production of the work on his own. On the other hand, if the works were to be done in metal alone, it would have taken less time to do and less expensive. The aesthetic effects of the two works would however not be the same.

In another scenario, it is also possible for a single medium work to take more time and money to do than if it was done in mixed media. For instance, the work ***coat of***

many colours was made in brass, nail polish, wood and shoe lace. If the same work was to be done in traditional metal art media such as copper and enamel, it would have taken more time to do and more expensive because enamel is more expensive than nail polish. It also takes more time to apply it onto the metal and fuse it than applying nail polish. If the work was even done plain without enamel or any form of colouring, it would have taken more time to polish and buff the work to give it a mirror finish than the effect given to it in the project executed above. If the work was electroplated or oxidized instead of the use of the nail polish, it would have taken more time to complete as an artist would need to polish the work to a mirror finish before plating to ensure that the work is smooth and presentable. It would also be more expensive than what was done as the processes of electroplating or oxidation require special materials and chemicals such as gold, silver, potassium cyanide, sulphur, sodium hydrosulphide, rectifiers and acids to do.

4.14.2 Finishing, Decorative and Protective Coating Techniques

The use of mixed media in the production of metal art makes it possible for artist to avoid the traditional techniques of finishing metal art pieces. Finishing techniques such as polishing with abrasives such as sand paper and emery paper and buffing with Tripoli and Rouge which require considerable amount of time, energy and equipment to do can be completely avoided. Other decorative and protective coating techniques such as oxidation and electroplating which are very expensive and technical to do can be replaced by alternative media such as leather, paint and graphite.

The use of acrylic paint, nail polish, graphite and leather as alternative means of finishing, decorating and the protective coating on metal art works means that artist do not have to spend time trying to remove dents and scratches on metal art pieces that result from tool marks and other metal working processes such as chasing and repousse because the media completely cover such dents and scratches. It must however be stated that, artists require extra learning in order to be able to effectively use other media that are not traditional to their fields of art. Failure to do this means artists would always engage the services of other artists thus increasing the cost of doing their works.

4.15 Implications for Art Education

If mixed media art is included in the Art Education curriculum, it will go a long way to help the course of the Art Education programme. By doing mixed media art, students will learn to work with various materials for the production of their works. They will in turn learn different techniques from other fields of art as a result of the variety of materials used. It will also help boost the creativity of student and remove all barriers in relation to the kinds of media and techniques that can be employed for the production of works of art. This will help make them better teachers. At times, art teachers are made to teach other art subjects they did not specialize in. they are not able to perform well many at times. If mixed media art is encouraged, it will help to curb this issue to a certain extent.

Through the appreciation of the works produced, the researcher’s knowledge in art appreciation and criticism has improved. Students should therefore be encouraged to

do their works based on ideas and be made to talk constructively about their works. This will boost their confidence in talking about their works and the works of others thereby making the teaching and learning of Aesthetics, Appreciation and Criticism easier and more enjoyable for both students and lecturers.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter provides the summary, conclusions and recommendations of the project undertaken.

5.2 Summary of the Study

The focus of the study was to explore the nature of mixed media art and incorporate mixed media into the production of metal art works. The researcher used the experimental and descriptive research methodologies for the study. Interviews and observations were the main instruments for the collection of data. Art works were also produced using various media both natural and synthetic.

Seventy-seven (73) mixed media artists were identified for the study out of which thirty-five (35) representing forty-eight (48%) were selected as the sample for the study using the purposive sampling technique. The practical works were produced using combination of metal working techniques including chasing and repousse, raising, piercing, soldering, embossing and other techniques from other fields of art including painting, macramé, marble dying, carving, and lathing.

Data gathered were assembled, analyzed and interpreted using words rather than numbers and the works produced were also appreciated.

5.3 Summary of Major Findings

- Mixed media art is the use of different media in the production of a single work of art.
- Mixed media art can also be said to be a combination of materials and methods in the production of a single work of art.
- Materials used in the production of mixed media art can either be closely related or be distinct from each other.
- Fixing a work does not qualify it as a mixed media work if the work is not already composed of different materials.
- Mixed media art and multi media art are not the same. Whiles mixed media art combines various visual art materials in its production, multi media art covers a wider scope by combining visual art with elements of the performing arts.
- Mixed media art can either be categorized under the various genres of art or not depending on the types of media used in their compositions.
- Doing mixed media arts helps to fine tune the planning abilities of artists.
- Artists learn to work with media that are not traditional to their fields of art through mixed media art.
- The cost of doing art can either be high or low depending on the types of media used.
- The amount of time spent on doing mixed media art is also dependent on the types of media used and the way in which they are administered.
- Wood glue does not adhere anything permanently onto metal surfaces.

- Epoxy and Formica glue are the best adhesives for metal.
- Graphite works well on tarnished metal surfaces but exposed dents.
- Eye pencil coats the surfaces of metals but does not dry thus not permanent even when fixed.
- Spray paint sets well on all metal surfaces but also expose dents and must be fixed to make it permanent.
- Acrylic paint completely hides dents and heavy tool marks when used on metal works. It must however be fixed to prevent it from peeling off at a latter date.
- The pungent smell of cow horn can best be removed by boiling. Boiling also makes it easier for sawing and filing and prevents the horn from cracking and peeling off during sawing and filing.
- Leather used to cover works with designs on them must be very thin. It must also be pounded to make it tender for use.

5.4 Conclusions

The study has shown that the non – conventional materials that were employed in the project could be used effectively for the production of metal art to achieve variety in works of art. The research has shown that materials such as acrylic paint, nail polish, wood, foam, lagging, cow horn, paper, graphite, adhesives, fabrics and many other materials can be alternative materials to the traditional metal working materials for the decoration, protective coating and finishing of metal art works in Ghana.

It can therefore be concluded that the incorporation of mixed media into the production of metal art provides alternative and limitless opportunities for metal artists who want to explore new materials and techniques. The study provides hope for all artists especially metal artists who want to explore unfamiliar media and techniques for the production of their works.

5.5 Recommendations

The researcher recommends that:

- Mixed media art should be introduced into the curriculums of all art programmes in the College of Art and Social Sciences and other art schools in Ghana. All final year art students in the College of Art and Social Sciences must be made to do mixed media art. It must also be made a major course for the MFA degree programmes and as an integral part of the course ATE 634 – Production Techniques in Art. Mixed media should be introduced into the course IAM 264 - Metal Surface Decoration and Protective Coating Methods. This will enable students to learn the traditional ways of decorating and

- protecting the surfaces of metal products as well as the alternative means as done in this research.
- Students studying Metal Products Design should be made to take lessons in wood carving, painting, macramé and leather work. This would enable students to produce excellent results in their further explorations.
- The Curriculum Research and Development Division (CRDD) of the Ghana Education Service (GES) should incorporate mixed media art into the curriculum of Senior High schools and Colleges of Education.
- NGO's who are involved in the training of artists should adopt this study for their training programmes since it would improve the creativity of artist and enhance the quality of their works thus resulting in higher income generation.

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APPENDIX

Interview guide

Research Question: what is the nature of mixed media art?

Name of interviewee:

Area of specialization:

Educational level:

Date:

1. What do you consider as mixed media art?
2. Does the use of different materials having similar characteristics in a single work constitute mixed media art? (E.g. using different types of paint or fabric or metal in a work).
3. Can a work made in one medium and fixed to make it permanent be considered as a mixed media work?
4. Does mixed media art fall under the various genre of art? (E.g. mixed media in ceramics or mixed media in painting).
5. Does working in mixed media require more time, labour and money?
6. Is there a difference between mixed media art and multi media art?
7. What is the most significant advantage in working in mixed media?
8. What are some of the setback in working with mixed media?

Observation guide

- Types of media used
- Means of processing the media (esp. natural ones and found objects)
- Means of administering the media to the work at large (types of adhesives and locking mechanisms used).