GRAINING THE GRAINS: A LINK TO EQUALITY

By

JAMES EKOW APPIAH (Bed ART)

A Project Report submitted to the School of Graduate Studies,

Kwame Nkrumah University of Science and Technology,

In partial fulfilment of requirements for the degree of

MASTER OF FINE ART (PAINTING AND SCULPTURE)

Faculty of Fine Art, College of Art and Social Sciences

© February 2014

Department of Painting and Sculpture



CERTIFICATION

I hereby declare that this submission is my own work towards the MFA and that, to the best of my knowledge, it contains no material previously published by another person nor 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.

James Ekow Appiah

(Candidate)

Signature

Date

Certified by

Certified by

Prof. H. B. Ato Delaquis for Shem

(Supervisor) Signature Date

Mr. Felix Annor Anim (Sharph Sollice 29/18/12)

(Head of Department) Signature Date

ABSTRACT

This thesis is intended to serve as a supporting document for the studio enquiry. It does also provide an insight on what I try to convey in my artwork 'Graining the grain: a link to equality'

The artist is drawn to the material (wood) due to its physical characteristics and its emotional and personal connection in relation with creative artistic process. Wood 'grains' by its nature looks fascinating hence, I try to mimic its effect by use of paint as opaque material to enhance and unearth the wonderful characteristic thereof.

My works seem independent yet they are connected. This reflects on us as individual beings doing things by ourselves, but as long as one needs help from the other, you become dependent on the other and that makes it connected. Through disconnection there is connection as long as one needs once assistance-Kim Chang (2012). This is what the leaders must note and create a conducive atmosphere to bring about unity among members in an organization.

My creative effort tries to defy the idea of 'marked and unmarked' where paint is applied on wood thereby obscuring the beauty of the wood 'grains'. However, paint being juxtaposed the wood grains enhance the beauty and interesting characteristics thereof. This metaphorically signifies a situation where subordinate can be superior and vice versa. To add to that, the work portrays the link between the materials and the issue of equality in the conceptual context and that has been interpreted in chapter four.

Throughout the engagement with the material 'wood' I became very interested in the grains as an element to the work and for that matter I used its patterns as a basis for creative studio work. This artistic creation places leader and Subordinate on the same pedestal thereby recommending equal rights and justice.

ACKNOWLEDGEMENTS

Glory be to the Almighty God for the grace, favour, wisdom and good health bestowed upon me. May his name be praised. I would like to give special thanks to my supervisor; Prof. H. B. Ato Delaquis who through his directions and help put this research work in shape. My sincere gratitude is hereby extended to Mr. Frank Asmah, Mr. K. G. Korsah, Mr. Kumi and Ama Marfo for their technical advice and support. I cannot conclude this without acknowledging the support of my mother Madam Theresa Jackson, Harriet Techie-Menson and Mr. Ernest H. L. Lyall Principal of Cape Coast Technical Institute. I am much grateful. To all the staff and students of Painting and Sculpture Department of Kwame Nkrumah University of Science and Technology, I say "thumbs up to you all" for your contributions. To all those who contributed to this study in diverse ways whose names are not mentioned here, know that you are not forgotten; your efforts are deeply appreciated.

TABLE OF CONTENTS

Title Page Page	es
Certification Page	i
Abstract	ii- iii
Acknowledgements	iv
Table of Contents	v-xv
List of Figures	viii-x
List of Plates	xi-xv
CHAPTER ONE	
INTRODUCTION	
INTRODUCTION	
1:1 Overview	1
Background to the study	1-2
1.3 Statement of the problem	4-5
1.4 Objectives of the Study	7-8
1.5 Justification of Objective	8
1.6 Importance of the study	9
1.7 Delimitations	9
1.8 Limitations	9
1.9 Facilities available	9-10
1.10 Definition of terms.	10-11
1.11 Abbreviations	11
1.12 Arrangement of the text	11

CHAPTER TWO

REVIEW OF THE RELATED LIERATURE

2:1 Overview	12
2.2 Wood grain	12
2.2.1 What is wood grain?	12
2.2.2 Grain structure	13-16
2.2.3 Types of grain	16-19
2.3 Wood panel, plywood and veneer	22-24
2.4 Colour field painting	26-28
2.5 Panel painting	35-41
CHAPTER THREE	
EQUIPMENT, MATERIALS AND METHODS	
3:1 Overview	42
3.2 Tools	42-43
3.3 Equipment	43-44
3.4 Materials	44-45
3.5 Procedure (experimental work)	48-49
3.6 Appreciation and criticism	49-50
3.7 First Discovery (institutional Ladder)	50
3.8 working process and methods (institutional ladder)	50-58

3.9 Procedure for first discovery (institutional ladder)	58-59
3.10 Appreciation	60
3.11 Second discovery (the institutional pyramid)	60
3.12 Working process and methods (institutional pyramid)	61-65
3.13 Procedure (institutional pyramid)	65-66
3.14 Appreciation	67
3.15 Procedure for the exhibition of the works	67 -68
3.16 Gallery of the final works	69-74
CHAPTER FOUR	
RESULTS	
4:1 Overview	75
4:2 Analysing the Results: Interpretation and Appreciation	75-78
CHAPTER FIVE	
SUMMARY, CONCLUSIONS AND RECOMEMDATIONS	
5.1 Overview	79
5.2 Summary	79-80
5.3 Conclusion.	80
5.4 Recommendations	80-81
Reference	82-83

LIST OF FIGURES

Fig (1.1) Fountain	2
Fig (1.2) Little Death Machine	3
Fig (1.3) Gallery Connections	3
Fig (1.4) Tate Thames Dig	4
Fig (1.5) Dijon Altarpiece	6
Fig (1.6) The Donne	6
Fig (1.7) The Adoration	7
Fig (1.8) The Last Judgment	7
Fig (2.9) Longitudinal cells	13
Fig (2.10) The cells that make up hardwood	14
Fig (2.11) The cells that make up softwood	14
Fig (2.12) Cross section of a tree trunk	15
Fig (2.13) Types of grain	17
Fig (2.14) Plain Sawn	29
Fig (2.15) Quarter Sawn	20
Fig (2.16) Live Sawn	20
Fig (2.17) Straight Grain	21
Fig (2.18) Wavy Grain	21
Fig (2.19) Irregular grain	21
Fig (2.20) Interlocked Grain	22
Fig (2.21) layers of Plywood	24

Fig (2.22) Wood painting supports made of Natural Maple	25
Fig (2.23) Wood Layers	25
Fig (2.24) Slots for hanging	26
Fig (2.25) Helen Frankenthaler in action	29
Fig (2.26) Mountains and Sea	29
Fig (2.27) Basque Beach	30
Fig (2.28) A horizontal gestural	30
Fig (2.29) POW from the Vietnam	31
Fig (2.30) Korea early war	31
Fig (2.31) Red Blue Green	32
Fig (2.32) Red Diagonal	32
Fig (2.33) Misery of life	33
Fig (2.34) Early morning	33
Fig (2.35) Beyond the jungle	34
Fig (2.36) My relation	34
Fig (2.37) You Come First	36
Fig (2.38) Cocoon	37
Fig (2.39) May There Be	37
Fig (2.40) Sea ice caravel	38
Fig (2.41) Heavenly Innocence	38
Fig (2.42) Lover loch	39
Fig (2.43) Refurbished Landscape	40

Fig (2.44) Re-Assembled Landscape (New Orleans 5)	41
Fig (2.45) Re-Assembled Landscape (Pekin)	41
Fig (3.46) Drawing (1) prior to project	45
Fig (3.47) Developed project from drawing (1)	45
Fig (3.48) Drawing (2) prior to project	46
Fig (3.49) Panels soak in the Preservative	46
Fig (3.50) Panels spread out to dry	46
Fig (3.51) Panels spread out after joining with	47
Fig (3.52) Panels hang out after joining with rope	47
Fig (3.53) Panels spread out for painting	47
Fig (3.54) Panels after painting	47
Fig (3.55) Experiment (1)	47
Fig (3.56) Experiment (2)	47
Fig (3.57) Experiment (1) hangs	48
Fig (3.58) Experiment (2) hangs	48

LISTS OF PLATES

Plate (3.1) Cutting of ring with Radial saw	50
Plate (3.2) Displayed rings	50
Plate (3.3) Grinding of rings	51
Plate (3.4) Welding of rings to screws	51
Plate (3.5) Seasoned wood (Board)	51
Plate (3.6) Rope ready for singeing	51
Plate (3.7) Cutting panels with tenon saw	51
Plate (3.8) Panels displayed on the floor	51
Plate (3.9) Cutting panels with Radial saw	52
Plate (3.10) Marking out	52
Plate (3.11) Panel drilling with Pillar drill	52
Plate (3.12) Panel drilling with Hand drill	52
Plate (3.13) Manual sanding	52
Plate (3.14) Drilled panels	52
Plate (3.15) Sanding with rotary sander	53
Plate (3.16) Spoiled panel	53
Plate (3.17) Singeing of rope	53
Plate (3.18) Treatment and drying of panels	53
Plate (3.19) Insertion of rope into panel	53
Plate (3.20) Checking of alignment	53
Plate (3.21) Drying after Insertion	54

Plate (3.22) Application of sanding sealer	54
Plate (3.23) Sanding of sealer	. 54
Plate (3.24) Mimicking of grains	54
Plate (3.25) Highlighting of images	54
Plate (3.26) Roller application	54
Plate (3.27) After rolling technique	55
Plate (3.28) After penning	55
Plate (3.29) Sample of colour (1)	55
Plate (3.30) Sample of colour (2)	55
Plate (3.31) Closer view 1	55
Plate (3.32) Closer view 2	55
Plate (3.33) Testing display 1	56
Plate (3.34) Testing display 2	56
Plate (3.35) Testing display 3	56
Plate (3.36) Testing display 4	56
Plate (3.37) Testing display 5	56
Plate (3.38) perspective view	56
Plate (3.39) Testing display 6 At Paa Joe Stadium	57
Plate (3.40) Testing display 7 At Paa Joe Stadium	57
Plate (3.42) Turing hanging At Paa Joe Stadium	57
Plate (3.43) Testing display 8 (Close view), At Paa Joe Stadium	57
Plate (3.44) Frontal view At Paa Joe Stadium	57

Plate (3.45) Perspective view At Paa Joe Stadium	58
Plate (3.46) Testing display 9 At Paa Joe Stadium	58
Plate (3.47) Back view At Paa Joe Stadium	58
Plate (3.48) Close view) At Paa Joe Stadium	58
Plate (3.49) Marking out	61
Plate (3.50) Cutting with ripe saw	61
Plate (3.51) Setting out	61
Plate (3.52) Marking with chalk liner	61
Plate (3.53) Cutting packed plywood	61
Plate (3.54) Manual planning	62
Plate (3.55) Shooting of plywood on jointer	62
Plate (3.56) Inspection after shooting	62
Plate (3.57) After shooting	62
Plate (3.58) Cutting mitre on the Plywood with jointer	62
Plate (3.59) Repairing of mitre	62
Plate (3.60) Cutting mitre for beads	63
Plate (3.61) Planning of wood for beads	63
Plate (3.62) Taking measurement for beads	63
Plate (3.63) Beads displayed	63
Plate (3.64) Fixing of Beads	63
Plate (3.65) Application of Preservative	63
Plate (3.66) Assembling of haves	64

Plate (3.67) Networking of grains	64
Plate (3.68) Fixing of veneer	64
Plate (3.69) Sanding	64
Plate (3.70) Application of sanding sealer	64
Plate (3.71) After painting	64
Plate (3.72) Application of lacquer	65
Plate (3.73) Assembling of works	65
Plate (3.74) Assistant helping to fix the works at commercial area	67
Plate (3.75) Supporting the work	67
Plate (3.76) Displayed works at Commercial area	67
Plate (3.77) Displayed pyramid	67
Plate (3.78) Lecturers asking questions about the work	68
Plate (3.79) Interpretation of the work	68
Plate (3.80) Pyramid with apex down	68
Plate (3.81) Pyramid with apex up	68
Plate (3.82) Pyramid in horizontal display	68
Plate (3.83) Horizontal display of the panel	69
Plate (3.84) Vertical display (close view)	69
Plate (3.85) Similar and different colour schemes	70
Plate (3.86) Vertical display (perspective view)	71
Plate (3.87) Vertical display (hanging by the side)	72
Plate (3.88) Horizontal display (stretched on frame)	73

Plate (3.89) Pyramid (perspective view)	73
Plate (3.90) Three pyramids put together Plate (3.91) Three pyramids put together (close view)	74
	74

CHAPTER ONE

INTRODUCTION

1:1 Overview

This chapter deals with a brief background of the study, statement of the problem, objectives, justification, importance of the study, delimitations, facilities available, definition of terms, abbreviations and arrangement of the text.

1.2 Background to the study

Every new turning-point in history of art brings with its retrospective process of reappraisal and redramatization, with new protagonists, new sequences, and new portent. We discover possible past at the same time as we feel the opening-up of possible futures. Woolen (1987) Art grows and is not static. In the spectacle of growth and changes the art world begins to be affected, and through these growth and changes many art forms begin to emerge. Considering Marcel Duchamp's readymade sculpture in Fig 1.1 entitled 'Fountain' (1917); this is a normal urinal pot that has been decontextualized. Some denied that it is not art, but one can believe that without Duchamp's experiments it is likely that Pop Art celebration of everyday objects or the current profusion of 'junk' sculpture might never have occurred. In any case, such vigorous movements of traditional criteria for art, such as imitation or expression have encouraged the artists either to abandon the definition altogether or pursue it in some other direction. Fig 1.2 Jake Chapman, Dinos Chapman, Little Death Machine (Castrated) 1993, fig 1.3 Gallery Connections 1991-6 by Angus Fairhurst and fig 1.4 Tate Thames Dig 1999 by Mark Dion. These and other works came as result of Duchamp's creations.

Many artists have used different materials in addressing issues of politic, social and economical interest. Such materials used by the artist in their artistic creation are never innocent. In view of that, the researcher deemed it appropriate to use the natural rope, wood and paint to portray the proposed project.

The project in question reflects the researchers' dislike about some people who look down on others and the attitude of disdainfulness. Such people happened to be Leaders / Supervisors in the areas they find themselves. One must remember that people want to feel needed; they want to help out and be a part of what you are doing. When you satisfy this desire in people, you receive their admiration, loyalty, respect and cooperation.

Leadership is about people not individual; what makes you 'a leader' in the absence of your subordinates? This is what the project intends to address through the use of the mentioned media.



Fig 1.1

Fountain 1917, replica 1964 by Marcel Duchamp

http://www.tate.org.uk/art/artworks/duchamp-fountain-t07573

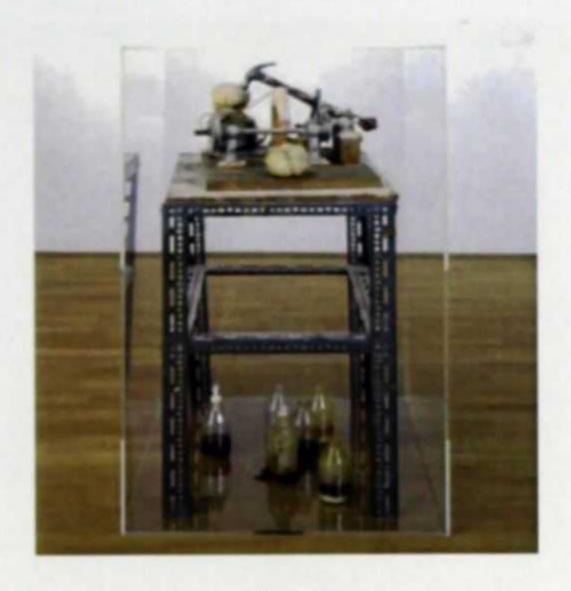


Fig 1.2

Little Death Machine (Castrated) 1993 by Jake Chapman, Dinos Chapman http://www.tate.org.uk/art/artworks/chapman-chapman-little-death-machine-castrated-t07272



Fig 1.3

Gallery Connections 1991-6 by Angus Fairhurst,

http://www.tate.org.uk/art/artworks/fairhurst-gallery-connections-t07294



Fig 1.4

Tate Thames Dig 1999 by Mark Dion

http://www.tate.org.uk/art/artworks/dion-tate-thames-dig-t07669

1.3 Statement of the problem

To condemn and criticize is to suggest, as well as to obscure is to have base. Condemnation and criticism of one's effort demand suggestions and when this is not done the action taken will be irrelevant. Again, obscuring the surface with any material must have some base; this base is the space carried by the surface to be obscured. Without the surface the material for obscuring is useless. This metaphorically indicates the importance of the 'subordinate' and the 'boss' who rely on each other in an organization.

Some leaders today use their powers to dominate their 'subordinates' for some reason being that they are the 'boss' and all they say is final and they know and do better than the latter. The above statement places 'wood' as a material in a metaphorical context to address the issue of the boss and the subordinate.

When Paintings were done on wood panel in 3rd and 4th centuries in Europe, the entire surface of the wood was mostly sealed. This indicates 'the power' of the media (paint) over 'the wood' as a support regardless of its fascinating grains; also it echoes and strengthens the boss and the subordinate issue within a context.

The term 'panel painting' denotes a picture painted on a panel (either a one-piece or multi-piece panel), usually made of wood, although metal and other rigid materials are used. Until canvas became popular in the sixteenth century, most movable paintings in Europe (excluding murals or artworks on vellum) were created on panels. Indeed, right up until 1600, panels were as common as canvases.

Panels were especially popular with European painters producing altarpiece art and miniatures, who might use wood panels. Panel paintings used over the altar typically came in three formats: diptych (2-panel works), triptych (3-panel works), and large-scale polyptych (multi-panel works). However, the 'grains' which is more fascinating were also obscure thereby placing emphasis on the subject matter. One may ask, is the support with grains not as important as the paint? What becomes the fascinating 'grains' when they are obscured? The answer to these questions is what the researcher is much interested in addressing the issue of 'Supervisors' and 'Subordinate' with the use of artistic creations.

The following illustrations in figs 1.5 to 1.8 gives more insight about how the panel paintings are presented: fig 1.5, 'Dijon' diptych fig 1.6 'The Donne' Triptych, fig 1.7 'The Adoration of the Lamb' indicate example of the Altarpiece in Polyptych; this was done on wood panel and mounted on a wall, Fig1.8 'The Last Judgment' a Polyptych.



Fig 1.5
Dijon Altarpiece by Melchior Broederlam
Tempera on wood, size: 167 x 125 cm (each wing)

Musée des eaux-Arts, Dijo http://www.wga.hu/tours/flemish/broederl/index.html



Fig 1.6
The Donne by Hans Memling
Medium: Oil on wood, size: Central panel: 70,5 x 70,5 cm, Wings: 70,5 x 30,5 cm (each)
National Gallery, London
http://www.wga.hu/tours/flemish/memling/index.html



Fig 1.7
The Adoration of the Lamb by Hubert and Jan van Eyck http://www.wga.hu/tours/flemish/eyck/



Fig 1.8

The Last Judgment by Rogier van der Weyden

Medium: Oil on wood, size: 215 x 560 cm

Musée de l'Hôtel Dieu, Beaune

http://www.wga.hu/tours/flemish/weyden/index.html

1.4 Objectives of the study

The objectives of the study are:

- 1. To explore wood grains and apply its natural patterns as basis for creative studio work.
- 2. To explore the use of natural rope and pieces of wood panels which carry the fascinating grains.
- 3. To mount an exhibition of practical works produced and present a

written document that covers the details of the creative works.

1.5 Justification of objective

- This research will introduce wood grains in different contexts in the light of contemporary art.
- ii) There are three basic materials involved in the project in question: wood panels or plywood, natural ropes and paint. The researcher intends using these materials which suggest the following:

The paint reflects the importance of 'grains' as place side by side to portray equality in different context.

Wood by its nature is in layers, therefore the 'layers' represent members in an organization likewise Plywood made in 'plies' which means same as the former.

The rope which is twisting or twisted indicates the 'strands' as merging or collective effort of the members in an organisation.

Wood as in panels with the images on both sides will make viewers move around the work.

The spaces left in between the panels will allow easy visual penetration by the viewer

1.6 Importance of the study

This project will provide the opportunity to appreciate the impact of wood grains that can influence and enhance abstract painting, to ginger up artists to re-visit the use of wood panel as a support especially those with powerful grains, to utilize both sides of wood panel, and reconsider the other ways to display art works of this nature apart from hanging on the wall.

Again, with the interpretation in chapter four will conscientize some leaders

Again, with the interpretation in chapter four will conscientize some leaders to re-think through their attitude towards subordinates for better change.

1.7 Delimitations

This project is limited to the use of three basic materials: wood panels or plywood, natural ropes and paint.

1.8 Limitations

The following factors impacted the execution of this project negatively:

 Financial and time constraints prevented the development of the works beyond a certain scale.

1.9Facilities available

The MFA Painting and Sculpture studio, Faculty of Art, KNUST

University main Library, KNUST - Kumasi

The College of Art Library - KNUST

Carpentry workshop, Cape Coast Technical Institute

Carpentry workshop, Kumasi Technical Institute

Consultations from supervisor - KNUST

The Internet

1.9 Definition of terms

Support - surface for execution of art work.

Sankafa - literal meaning of going back to the rout.

Microstructure - the fine structure (in a wood, metal or other material)
which can be made visible and examined with a microscope.

Macrostructure - the large-scale or overall structure of something, e.g. an organism, a mechanical construction. Or any overall structure, as a gross anatomical part.

Longitudinal cells – these are vertical cells running parallel to the length of the trunk or limb of a tree.

Medullary rays - the rays of cellular tissue seen in a transverse section of exogenous wood, which pass from the pith to the bark. The purpose of medullary ray is to transport nutrition between the core of the trunk and the outer parts of a tree.

Ray fleck – these are Rays, or strips of cells, store food and transport it horizontally throughout the tree.

Decontextualized - considered in isolation from its original context.

Preservative - a chemical substance used for preventing food or wood from

decaying.

Singeing - removal of hire from the rope.

Redramatization - the reconstruction of an event, novel, story, etc. in a form suitable for dramatic presentation.

Vellum- a fine kind of parchment, originally made from calfskin.

1.10 Abbreviations

A.D. - Anno Domini (In the year of the Lord)

BC - before Christ

1.11 Arrangement of the text

Introduction to the main thesis project is seen in Chapter One together with the statement of the problem, objectives, justification, importance to the study, delimitations, facilities available, definition of terms and abbreviations. Chapter two takes us through related literature to the topic. In chapter three, tools and materials as well as the general procedure to the practical works are seen. Detailed discussion, analysis and interpretation of works is seen in chapter four. The entire thesis is concluded with recommendations in chapter five.

CHAPTER TWO

REVIEW OF THE RELATED LIERATURE

2:1 Overview

This chapter reviews the related literature under the following sub-heading; wood grains, wood panel, plywood and veneer, colour field painting and panel painting.

2.2 Wood grain

Wood grain has a unique characteristic, which makes the wood fascinating, and for that matter, the researcher will review the following: what is wood grain, grain structure and types of grain.

2.2.1 What is wood grain?

Wood grain is the natural pattern of a section of wood, showing the particular features of the wood's anatomical structure. The diversity of grains among species is due to the specific features of the macrostructure and microstructure of the wood and depends on the representativeness, dimensions, and interpositioning of the wood's basic anatomical elements—vessels, medullary rays, and wood fibers. The grain largely determines the decorative value of the wood in cabinetwork and serves as an important feature in the identification of tree species. (Cherkasov, 1979, para 1).

According to (Cherkasov, 1979, para 2), wood grain enhances the beauty of the wood, it also help in determine the type of wood used in the artistic productions; these and others influence the researcher to delve into how wood grain is important as well as the panel is concern.

2.2.2 Grain structure

As the cambium grows, it generates two types of wood cells. Most of these are long, narrow *longitudinal cells* that align themselves with the axis of the trunk, limb, or root see Fig. 2.9. These are what give the wood its grain. The cambium also produces a smaller number of *ray cells* that line up in *rays* extending out from the pith, perpendicular to the axis.

As the wood grows outward, the living protoplasm inside the cells dies and deteriorates, leaving behind just the cell walls. These walls are composed mostly of *cellulose fibers*, which give the wood its strength. The fibers are bound together with *lignin*, a glue-like substance. The hollow longitudinal cells become part of the sapwood, conducting the sap up and down the tree. The hollow rays store plant sugars. After several seasons, the older sapwood turns to heartwood. The sap dries up, and mineral compounds called *extractives* form on the cell walls. These chemicals turn the wood darker, giving it the characteristic color of its species. They also affect its strength, stability, and hardness.

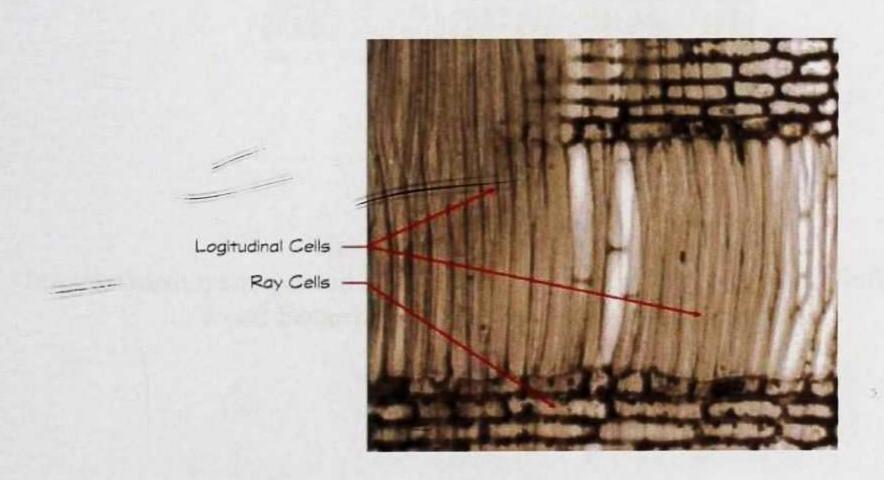


Fig. 2.9

longitudinal cells

http://workshopcompanion.com/KnowHow/Design/Nature of Wood/1Wood

Grain/1 Wood Grain.htm

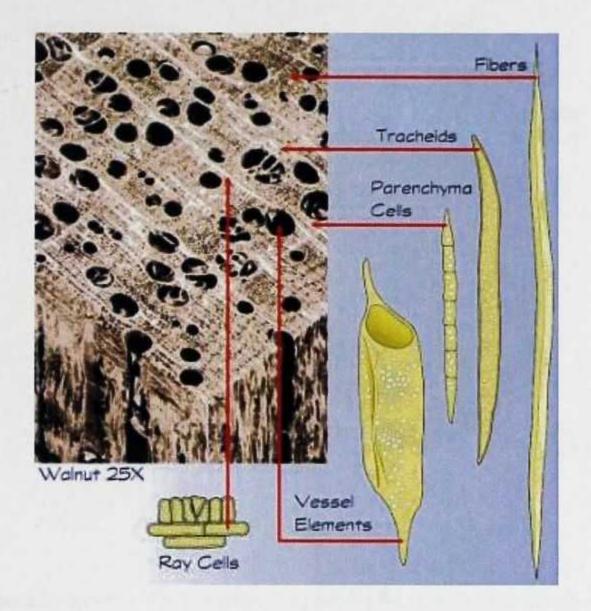


Fig 2.10
The cells that make up hardwood
http://workshopcompanion.com/KnowHow/Wood/Hardwoods & Softwoods/1 Wood
Botany/1Wood Botany.htm#vesselelements

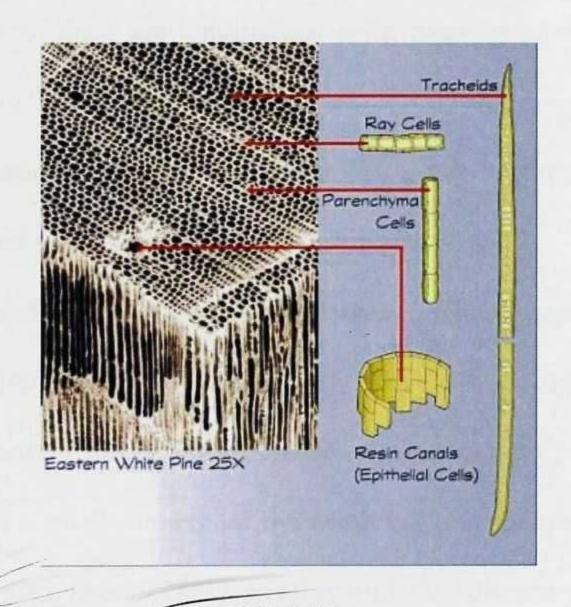


Fig 2.11
The cells that make up softwood
http://workshopcompanion.com/KnowHow/Wood/Hardwoods &_Softwoods/1
Wood Botany/1 Wood Botany.htm#vesselelements

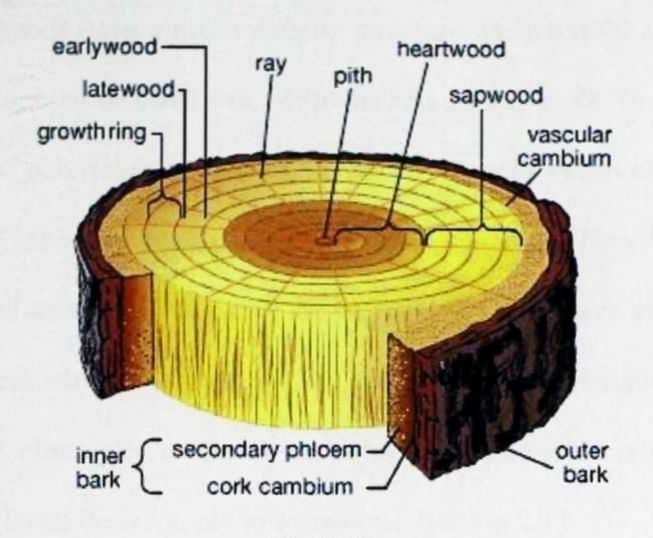


Fig 2.12

Cross section of a tree trunk

http://kids.britannica.com/elementary/art-66141/Cross-section-of-a-tree-trunk

The studies of a piece of hardwood under a microscope and indicates five major types of cells. Four of these are longitudinal cells, running parallel to the length of the trunk or limb Fig 2.10.

Most hardwood tissue is composed of *fibers* 100 times longer than they are wide.

These have thick cell walls, sometimes appearing almost solid.

Interspersed among the fibers are *vessel elements*. These appear much larger in diameter and shorter than fibers, and they are always aligned to form long, longitudinal pipelines. When sliced open, they appear as pores in the wood surface.

You may also find a small number of *tracheids* and *parenchyma cells* with much thinner cell walls than fibers. These are few and far between and are completely missing in some hardwood species.

The fifth cell type runs perpendicular to the others:

Ray cells form radial pipelines running out from the center of the tree.

However, softwoods have a much simpler structure. Between 90 and 95 percent of

However, softwoods have a much simpler structure. Between 90 and 95 percent of the wood is composed of *tracheids*, while the rest are *ray cells*. There may also be a small number of *parenchyma cells*. There are no fibers or vessel elements, although some softwood has *resin canals* lined with *epithelial cells*. They tend not to be as dense or as hard as most hardwoods. In addition, because there are fewer types of cells, there is less variety in the grain and appearance. For example, the absence of vessel elements eliminates the pores on softwoods. The grain is neither open nor closed — these terms do not apply to softwoods. See Fig 2.11.

2.2.3 Types of grain

Because of the manner in which wood grows, every board has a definite grain direction, parallel to the length of the longitudinal cells. The grain appears differently depending on how the board is sawed Fig 2.13.

When board is cut across the grain (perpendicular to the grain direction and the growth rings), end grain is revealed.

Wood cut parallel to the grain direction and tangent to the growth rings, *plain*grain is introduced (also called tangential or flat grain).

Wood being cut parallel to the grain direction but through the radius of the growth rings to see quarter grain (also referred to as radial grain).

Both flat grain and quarter grain are sometimes called long grain.

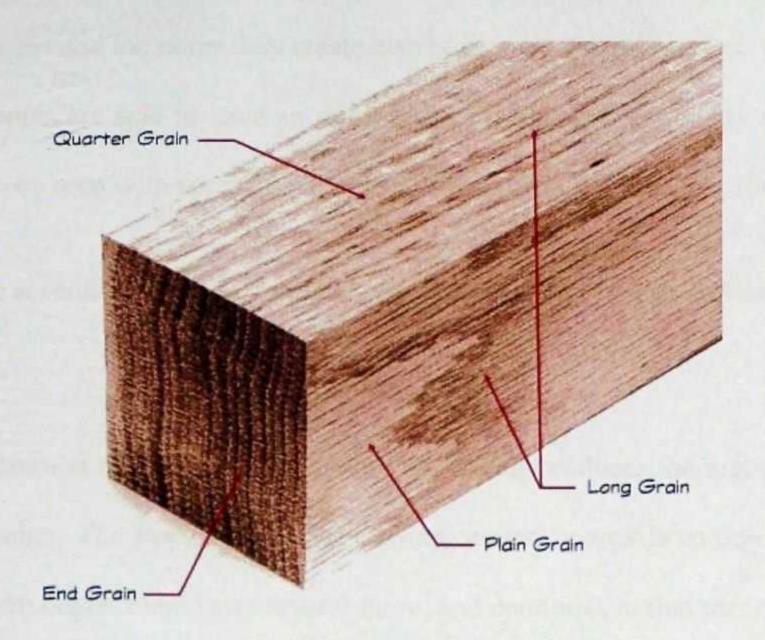


Fig 2.13
Types of grain
http://workshopcompanion.com/KnowHow/Design/Nature_of_
Wood/1 Wood Grain/1 Wood Grain.htm

The appearance of a hardwood's grain depends on the size, shape, and number of each cell type. And because there are so many possible combinations, hardwood grain is enormously varied. For example, the rays can grow quite large, producing a pronounced *ray fleck* in some species. In quarter sawn oak, the rays are the first to be seen. In other words, they are barely noticeable. (Engler, 2009, para. 1)

Grain differs with the distribution of cells in the growth rings. When the cells in the dry-seasoned wood are roughly the same size and density as the rain-seasoned wood, the wood has an *even grain* texture. When the dry-seasoned wood cells are noticeably smaller and denser than those in the rain-seasoned wood, the texture is *uneven*. (Engler, 2009, para. 2)

Vessel elements and the pores they create also have a conspicuous effect. Hardwoods with large pores are said to have an **open grain**. Those with extremely small pores (too small to be seen with the naked eye) have a **closed grain**. (Engler, 2009, para. 3)

Sawyers use several methods to cut up a tree, each of which reveals different grain patterns.

The most common method is *plain sawing* because it produces the highest quantity of usable timber. The sawyer begins by sawing several boards from one side of the log, turns it 90 degrees and saws several more, and continues in that manner "sawing around" the log. Plain-sawn boards show flat grain on their faces and quarter grain on the edges. (Engler, 2009, para. 1)Fig 2.14.

(Engler, 2009, para. 2) opines that sawyer might also *quarter saw* a log. First, he saws the log in quarters, then slices each quarter into boards, either by cutting boards from the two flat sides alternately or by gang-sawing the quarter (making parallel cuts). Quarter sawn boards show mostly quarter grain on their faces and flat grain on the edges. Fig 2.15.

On special request, a sawyer will have to do *live saw* a log for a woodworker, gangsawing the entire log. (This is sometimes called *sawing through and through*.) Live sawing produces much wider boards than other methods, and these boards show mostly mixed grain—flat grain near the center of the face and quarter grain near the edges. Fig 2.16.

According to (Engler, 2009, para 1-4). Wood grain has different patterns irrespective of its type. The normal orientation of the longitudinal cells determines a species' characteristic grain pattern. There are four categories: straight grain, wavy grain, irregular grain and interlocked grain. In *straight grain*, the longitudinal cells grow fairly straight and parallel to the axis of the trunk; *wavy grain*, the cells undulate in short, even waves. This sometimes produces curly figure. In *irregular grain*, the cells undulate around knots or in no discernible pattern. And *interlocked grain*, the cells spiral around the trunk, reversing direction every few growth rings. This produces ribbon figure. See Fig 2.17 to Fig 2.20.

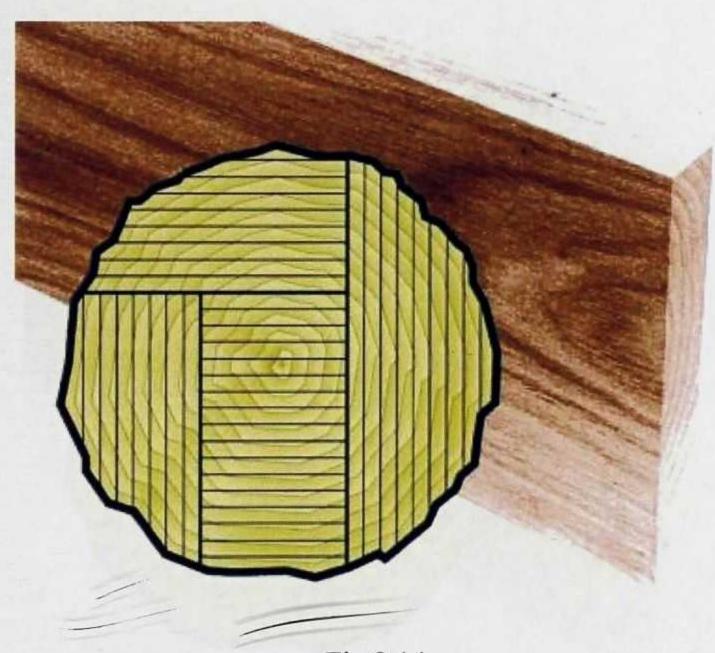


Fig 2.14
Plain Sawn
http://workshopcompanion.com/KnowHow/Design/Nature
of Wood/1 Wood Grain/1 Wood Grain.htm#lumbersawing

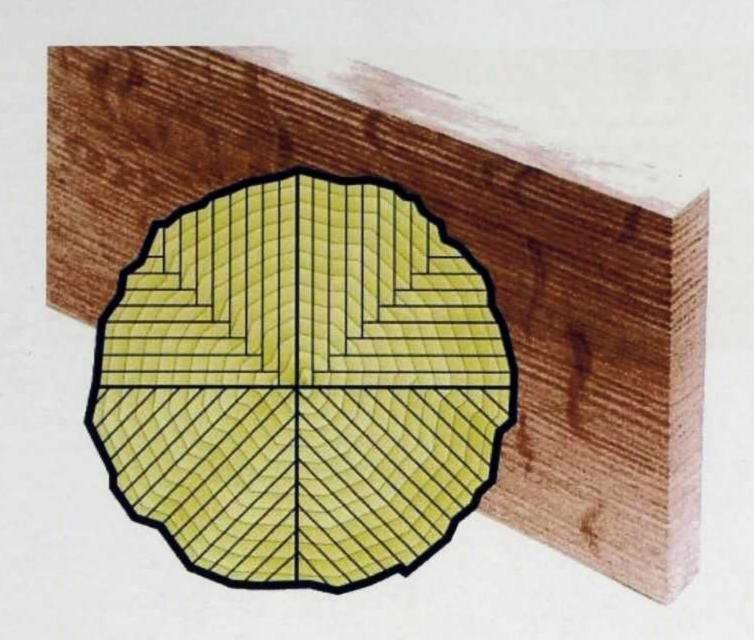


Fig 2.15
Quarter Sawn
http://workshopcompanion.com/KnowHow/Design/Nature_of_Wood/1
Wood Grain/1 Wood Grain.htm#lumbersawing

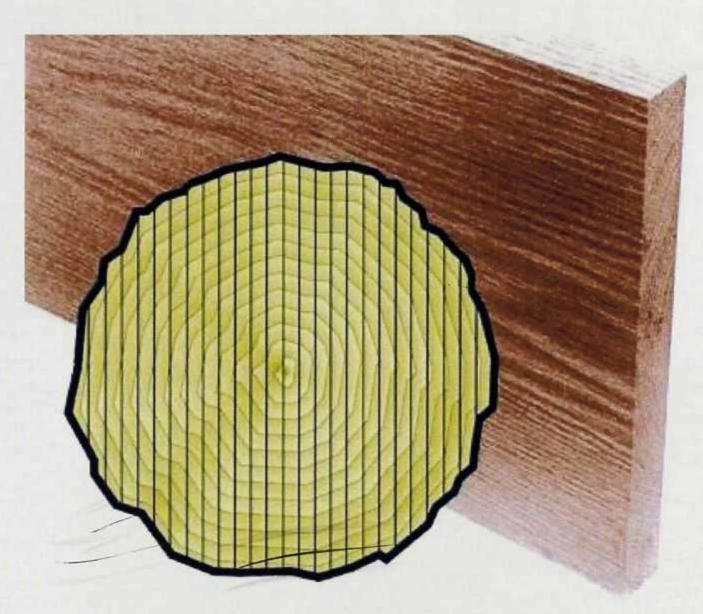


Fig 2.16
Live Sawn
http://workshopcompanion.com/KnowHow/Design/Nature_of_
Wood/1 Wood Grain/1 Wood Grain.htm#lumbersawing



Fig 2.17
Straight Grain
http://workshopcompanion.com

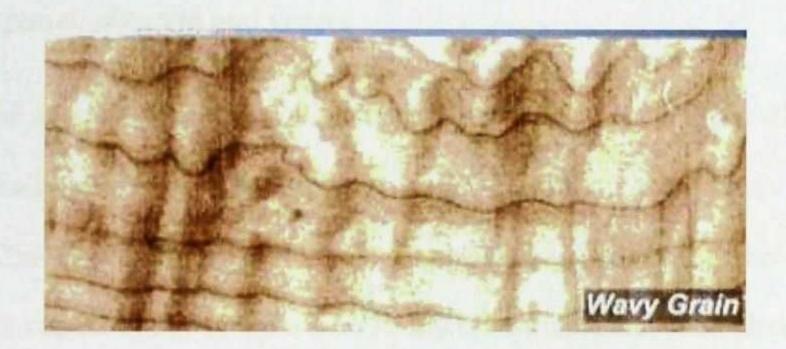


Fig 2.18 Wavy Grain http://workshopcompanion.com

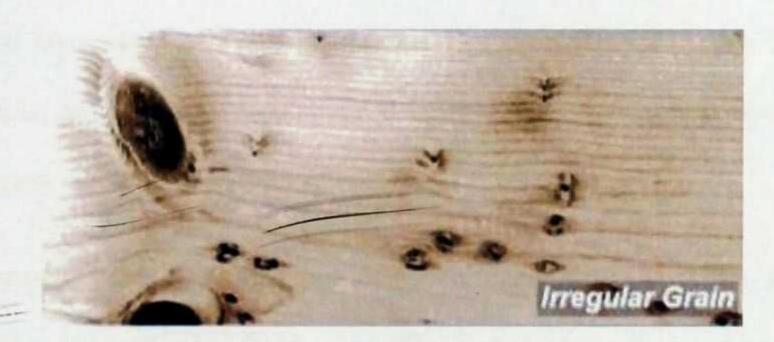


Fig 2.19
Irregular grain
http://workshopcompanion.com



Fig 2.20 Interlocked Grain http://workshopcompanion.com

2.3 Wood panel, plywood and veneer

Wood panel is a flat piece of wood which is being used by artist especially painters. Many of such panel comes in the form of plywood that is made from 'layers' of veneers. This laminated veneers (plies) constructed in an odd number of layers. Layers may consist of one or more plies laminated with parallel grain direction. Each layer is positioned perpendicular to the adjacent layer to equalize strain, reduce splitting, and minimize warping. Outer layers generally have the outer layers oriented parallel to the long dimension of the panel. Plywood must have a minimum number of plies and layers for each thickness range. For example, 15/32 inch Structural 1 plywood must have at least 4 plies and 3 layers. Non-Structural 1 plywood of the same thickness can have 3 plies. See Fig 2.21.

Veneer is usually produced by peeling premium logs with ratory lathes, then drying, grading and coating the loges with glue. The coated veneer is cross-laminated and then hot-pressed into sheets under moderate pressure (e.g. 200 to 250 psi). (Hsu, 1997, para 1)



However, many of this plywood are not suitable for painting project in terms of what it is manufactured for. Today already made panels are in the market for artist to use as a support. Fig (2.22) described the nature of the support: the panel is made up of wood layers; the panel's inner core has three layers of aspen hardwood that are glued in alternating directions. Waterproof glue keeps each layer from expanding or contracting. The front and back veneer is made of Natural Maple hardwood, the face veneer has no seems, voids or knots. The back of the artist panel has recessed dovetailed slots Fig 2.25 for easy hanging. The panel will hang with or without the expense of hanging wire or picture framing.

Unique hanging slots enable the artist to hang their panel in either direction while working on their painting, or in the final presentation. This means that a single nail or screw in the wall is all that is needed to secure the painting to the wall. There is no need to frame, use picture wire or screw eyes. The panel can also be easily framed.

The hanging slot interlocks with the nail or screw to keep the panel snug to the wall.

The panel hangs flush to the wall, parallel and tight. The artist panel will not tilt away at the top causing it to angle away from the wall.

The horizontal slot makes it easy to level. Simply slide the panel to either side left or right until it hangs level, even collages with un-equal weight distribution will level easily. The unique interlocking design holds the panel to the wall. Holding tight to the wall will help prevent damage to the painting. If a painting is not entirely secure to the wall it can be accidentally knocked off to hit the floor. Such an impact can cause irreparable damage.

The above description indicate that one side of the panel could be used, also the nature of the panel suggest that it must be hang on the wall; this called the attention of the researcher to enquire how possible both side could be used and this will affect its mode of display.

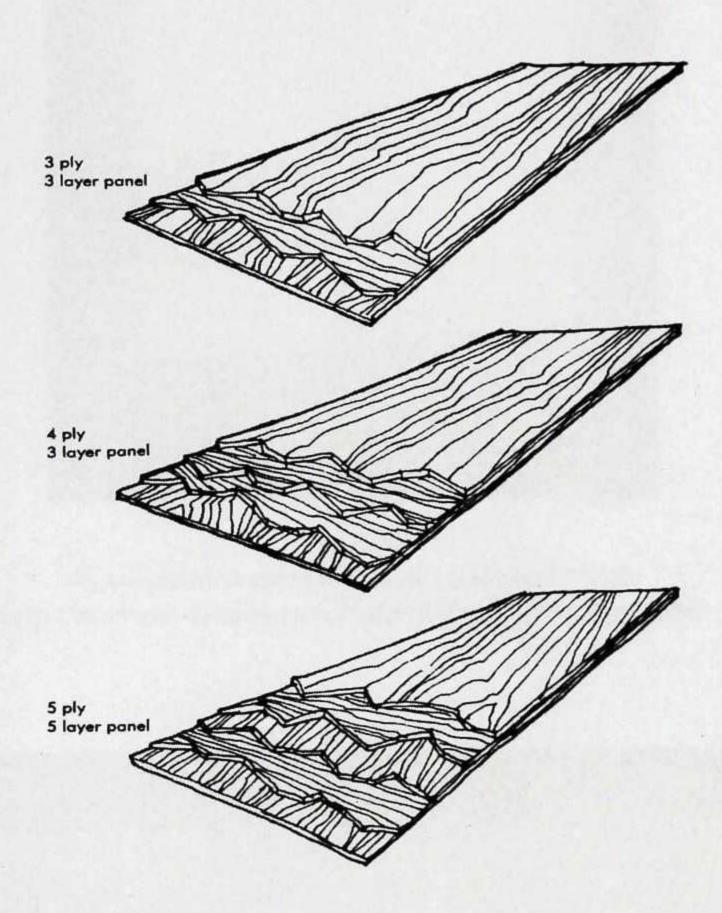


Fig (2.21) layers of Plywood

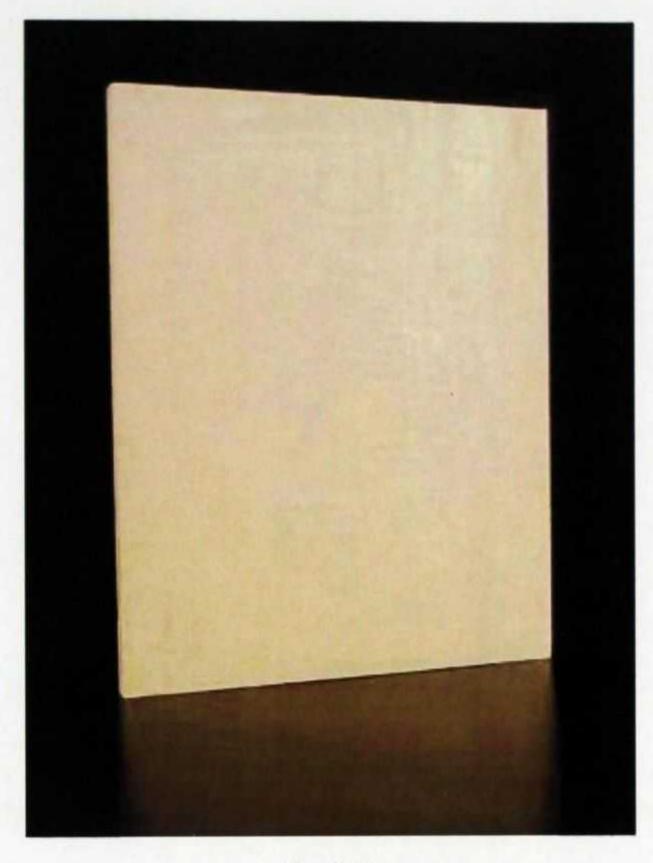


Fig 2.22
Wood painting supports made of Natural Maple
http://www.art-boards.com/NaturalMapleUnCradled.html

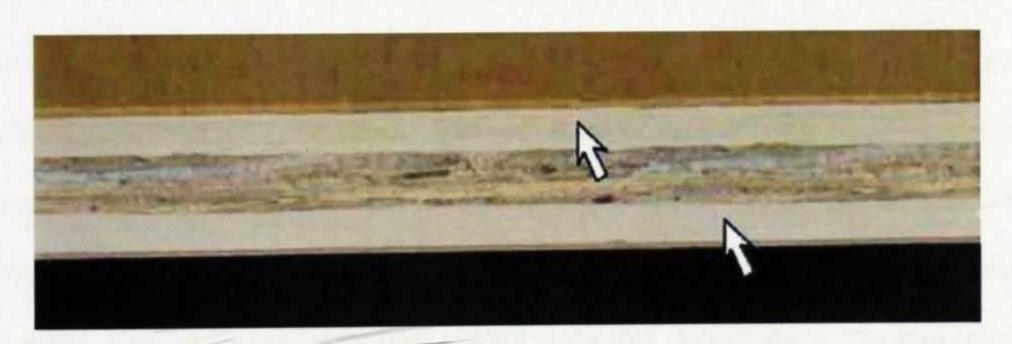


Fig 2.23
Wood Layers
http://www.art-boards.com/NaturalMapleUnCradled.html

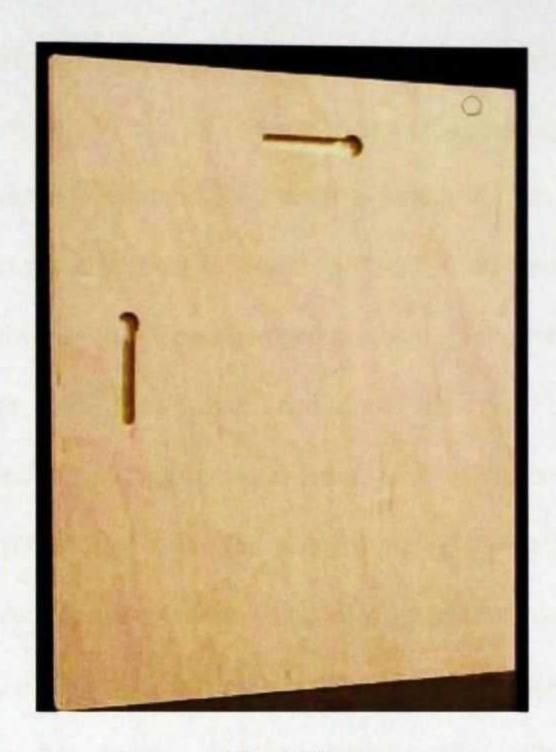


Fig 2.24
Slots for hanging
http://www.art-boards.com/NaturalMapleUnCradled.html

2.4 Colour field painting

Colour Field painting is a style of abstract painting that emerged in New York City during the 1940s and 1950s. It was inspired by European modernism and closely related to Abstract Expressionism, while many of its notable early proponents were among the pioneering Abstract Expressionists. Colour Field is characterized primarily by large fields of flat, solid colour spread across or stained into the canvas or panel creating areas of unbroken surface and a flat picture plane. The movement places less emphasis on gesture, brushstrokes and action in favour of an overall consistency of form and process. In colour field painting "color is freed from objective context and becomes the subject in itself. The following are some artists who pushed the movement to different dimensions: Helen Frankenthaler, Raeford lile, Ellsworth Kelly, and Ekow Appiah.

Helen Frankenthaler was an American Abstract Expressionist painter. She was a major contributor to the history of postwar American painting. Frankenthaler was influenced by Abstract Expressionist painting practices, but developed her own distinct approach to the style. She invented the "soak-stain" technique, in which she poured turpentine-thinned paint onto canvas, producing luminous colour washes that appeared to merge with the canvas and deny any hint of three-dimensional illusionism. Her breakthrough gave rise to the movement promoted by the influential art critic Clement Greenberg as the "next big thing" in American art: Colour Field painting, marked by airy compositions that celebrated the joys of pure colour and gave an entirely new look and feel to the surface of the canvas. Later in her career, Frankenthaler turned her attention to other artistic media, most notably woodcut, in which she achieved the quality of painting, in some cases replicating the effects of her soak-stain process. (Frankenthaler, 1956-1957, para. 2). See fig 2.25-27.

"What concerns me when I work is not whether the picture is a landscape, or whether it's pastoral, or whether somebody will see a sunset in it. What concerns me is - did I make a beautiful picture?"

"Every so often every artist feels, 'I'll never paint again. The muse has gone out the window.' In 1985, I hardly painted at all for three months, and it was agonizing. I looked at reproductions. I stared at Matisse. I stared at the Old Masters. I stared at the Quattrocento. And I thought to myself - Don't push it! If you try too hard to get at something, you almost push it away."

"Being the person I was and am, exposed to the things I have been exposed to, I could only make my painting with the methods--and with the wrist--I have." (Frankenthaler, 1956-1957, para. 4).

Raeford lile was a pilot fighter during World War II. He tries to evoking colour of blood and explosions that occurs during bombing. He pours paint onto canvas and turn it rapidly for the paint accentuate. He also works on abstract figures to depict same theme as above. See fig. 2.28-30.

Kelly intends for viewers to experience his artwork with instinctive, physical responses to the work's structure, color, and surrounding space rather than with contextual or interpretive analysis. He encourages a kind of silent encounter, or bodily participation by the viewer with the artwork, chiefly by presenting bold and contrasting colors free of gestural brushstrokes or recognizable imagery, panels protruding gracefully from the wall, and irregular forms inhabiting space as confidently as the viewer before them.

Real-life observations are the backbone of Kelly's abstraction works, which are replications of the shapes, shadows, and other visual sensations he experiences in the world around him. As did the early twentieth century Dadaists, Kelly delights in the spontaneous, the casual, and the ephemeral means of finding such "readymade" subjects. See Fig 2.31 - 32.

Ekow Appiah (2012), this art student writing this thesis is being influrecned by images/shadows that are seen on walls, floors and any other suffaces which is likely to manufest itself. The images/shadow appear to be a peeled-of paint, splash of dirty water on walls and floors; and these may seem to be representational or nonrepresentational and for that matter the artist takes deligth in mimicing them by pouring paint onto strow board that is affixed with natural rope. This ropes direct the flow of the paint; intermittently brush was also used to control such images as seen in. Fig 2.33-36.

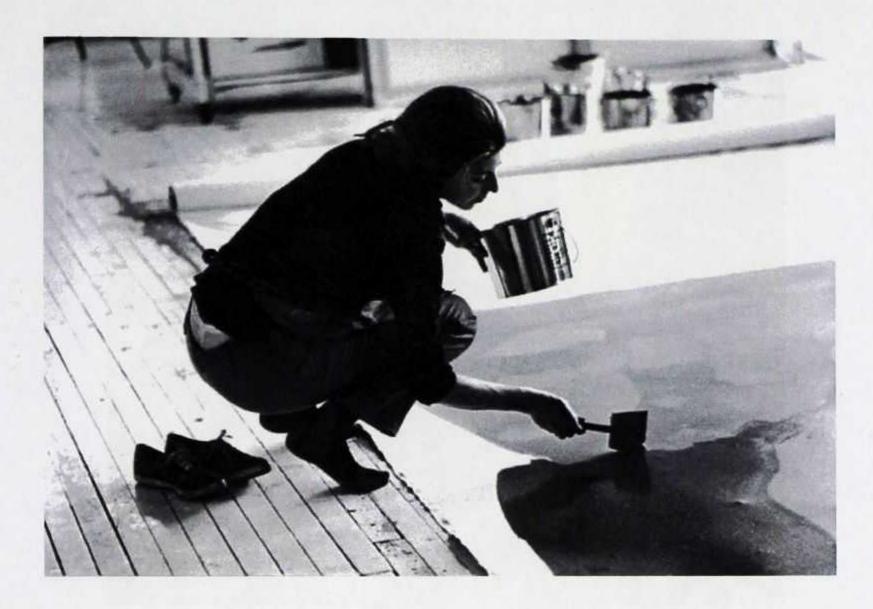


Fig 2.25
Helen Frankenthaler in action http://www.artnet.com



Fig 2.26
Mountains and Sea 1952 by Helen Frankenthaler
National Gallery of Art
http://www.artnet.com



Fig 2.27
Basque Beach, July1958 by Helen Frankenthaler
National Gallery of Art
http://www.artnet.com



Fig 2.28
A horizontal gestural by Raeford lile http://www.berkshirefinearts.com

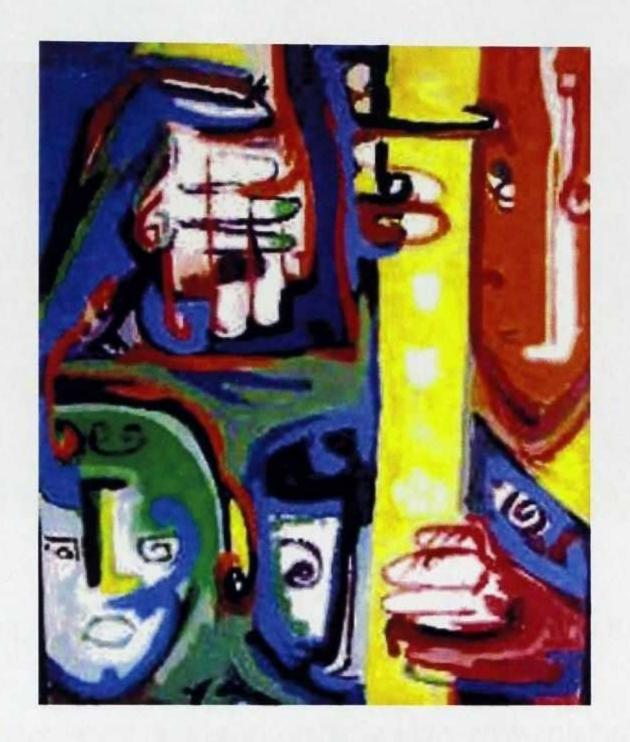


Fig 2.29
POW from the Vietnam by Raeford lile http://www.berkshirefinearts.com

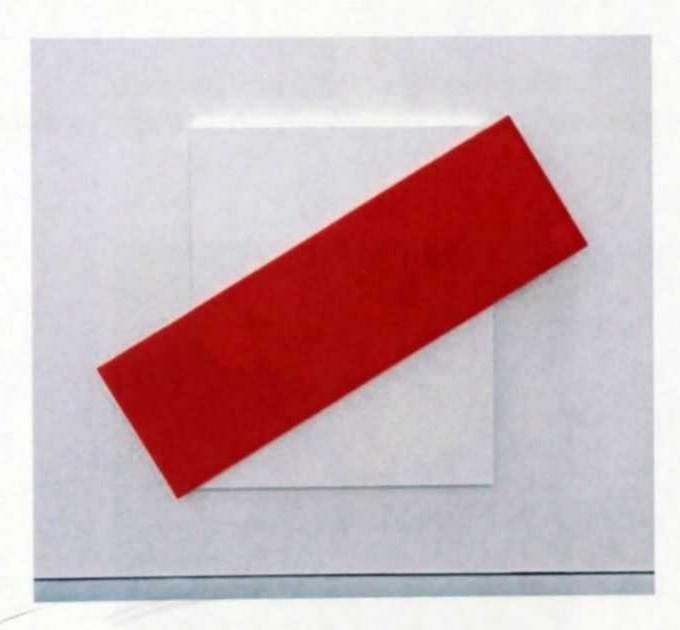


Fig 2.30
Korea early war by Raeford lile
http://www.berkshirefinearts.com



Fig 2.31
Red Blue Green, 1963, by Ellsworth Kelly, Oil on canvas. Dim: 83 5/8 x 135 7/8 inches
The Museum of Contemporary Art San Diego

The Museum of Contemporary Art San Diego http://www.theartstory.org/artist-kelly-ellsworth.htm



Red Diagonal, 2007, by Ellsworth Kelly, Oil on canvas, two joined panels. Dim: 84

1/4 x 109 3/8 x 2 5/8 inches

The Art Institute of Chicago

http://www.theartstory.org/artist-kelly-ellsworth.htm

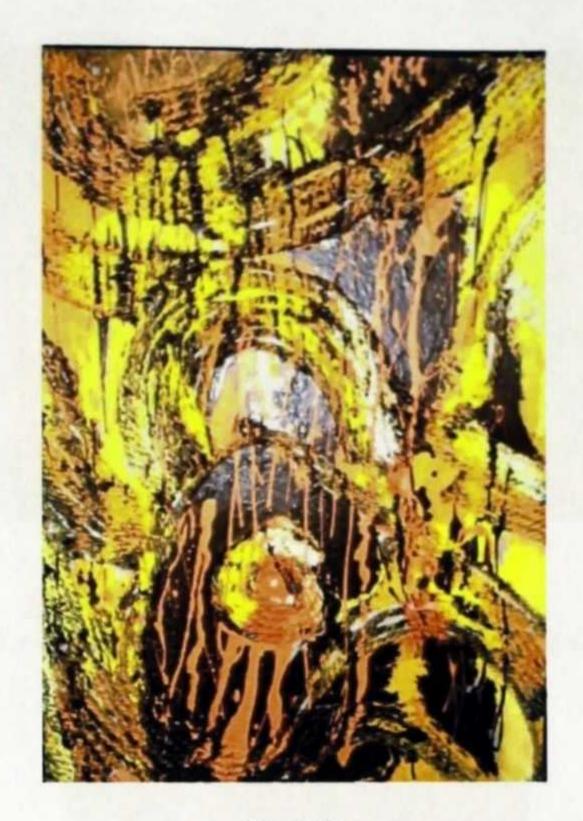


Fig 2.33
Misery of life (2012) by Ekow Appiah,
Dim.20 x 30 inches Acrylic on straw board affixed with rope



Fig 2.34
Early morning (2012) by Ekow Appiah,
Dim. 18 x 28 inches, Acrylic on straw board affixed with rope



Fig 2.35

Beyond the jungle (2012) by Ekow Appiah,

Dim. 20 x 30 inches Acrylic on straw board affixed with rope



Fig 2.36
My relation (2012) by Ekow Appiah,
Dim. 18 x 28 inches, Acrylic on straw board affixed with rope

2.5 Panel painting

Painting on wood is an ancient art form. The earliest oil paintings known were done on oak or poplar wood. Covered with an even ground coming from animal fat, chalk and glue, the ground was rendered to make the surface adaptable for oil paints.

The first wood panel paintings date back to the 9th Century A.D. when many Greek and Roman artists painted on wood panels. Most of the early wood panel paintings carried a religious theme, see fig.1.5-8; with many paintings of Jesus Christ and the Virgin Mary, however, by the 15th Century the concept of humanism replaced religion as a subject, giving way to more secular paintings. (Wikipedia, 2013, para. 1)

However, some contemporary painters today have resorted to the use of wood panel as a support. The subjects executed on such panels could be seen among them with natural wood grains and others without; these and others are what the researcher is interested and for that matter review to know why those techniques are explored and its significant to the wood surface and any narratives that the artist may articulate. Below are some artists who have used wood panel as a support for their artistic creations: Audrey Kawasaki, Amy sol and David Linneweh.

Audrey Kawasaki is an amazing artist who works on wood panel, according to Audrey in an interview with Lou O'Bedlam on January 16, 2009; she has a particular figure which could be seen almost all her painting and to her this is what she said: 'I am addicted to her, she haunts me. She is my obsession. My love. My drive. My muse. My curse. My unattainable'. Her works are noted for as an abstraction and realistic combined technique; Looking at the nature of her work, grains and knots are seen all over among the medium used to depict the subject. In fact grain seemed to dominate the medium or may move parallel on the same level. The researcher has

similar technique where the medium, which carry the idea in the abstraction sense, move with the grain as they are on the same level. See Fig 2.39-41.

According to Mcmurray (2010):

'The themes in Audrey Kawasaki's work are contradictions within themselves. Her work is both innocent and erotic. Each subject is attractive yet disturbing. Audrey's precise technical style is at once influenced by both manga comics and Art Nouveau. Her sharp graphic imagery is combined with the natural grain of the wood panels she paints on, bringing unexpected warmth to enigmatic subject matter.

The figures she paints are seductive and contain an air of melancholy. They exist in their own sensually esoteric realm, yet at the same time present a sense of accessibility that draws the observer to them. These mysterious young women captivate with the direct stare of their bedroom eye'.



You Come First (2012) By Audrey Kawasaki,
Oil, acrylic, and graphite on wood panel 16" x 16" Jonathan Levine Gallery
'Midnight Reverie' NY
http://www.audrey-kawasaki.com



Fig 2.38
Cocoon (2012) By Audrey Kawasaki,
Oil, acrylic, and graphite on wood panel 18"x24"
Jonathan Levine Gallery
http://www.audrey-kawasaki.com



Fig 2.39
May There Be (2012) By Audrey Kawasaki,
Oil, acrylic, and graphite on wood panel 18"x24"

Jonathan Levine Gallery

http://www.audrey-kawasaki.com

Amy sol is known for her ethereal paintings of playful, cartoonish human and animal characters see fig 2.40-42. She works on wood panel and sometimes paper. Besides, any subject matter produced is originating from her a sketch or doodle, below is what she said:

'I usually start with a loose idea floating around in my head and sometimes it leads to something I will want to paint. The most interesting sketches usually start off with a vague sense of what I want to draw and take shape on their own. Also, I enjoy drawing things from life and nature especially when traveling, not so much for use in paintings but for the challenge and fun of it'. Sol (2012).

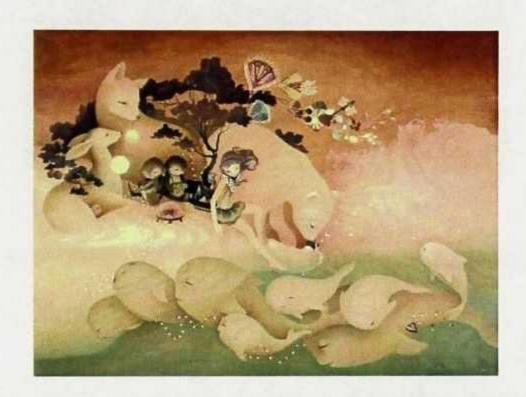


Fig 2.40 Sea ice caravel, (2009) - Amy Sol, acrylic on wood



Fig 2.41 Heavenly Innocence (2011) - Amy Sol, acrylic on wood





Fig 2.42 Lover loch (2011) - Amy Sol, acrylic on wood

Upon looking at Amy sol's work, there are similarities between hers and Audrey Kawasaki's; the only difference is the situation where Sol obscures most of the grains, again she fuses the medium into the wood grains in a way of imitation. The nature of Amy sol's works are prone to hang on the walls, however, the researcher's artistic creation which is similar to the former's work in terms of visibility of grains could hang on wall or in space as a Banner.

'David Linneweh paints architectural landscapes, carefully rendered on bare wood supports. Sometimes the buildings are taken apart and reassembled – fractured almost beyond recognition. Other landscapes are left incomplete with empty spaces that demand completion in viewers' minds'; see fig2.43-445. According to Reinoehl (2013)., Linneweh's work it is characterized by living empty spaces where viewers would have to fill with their interpretation concern architectural landscapes how they should look.

Considering the nature of Linneweh's work, the researcher infers the following: the paintings look incomplete, where some areas need to finish. This can be the artist style because it could be seen throughout his works, the medium is applied in flat tone devoid of graduation; moreover, some of the subjects matter looks more abstract in its sense, see fig 2.45. David during an interview with Jess Wheaton (2012), this is what he said: 'All of my work intersects with real life in that they are all based on places I've lived in, walked through or driven through'

The researcher's work looks similar in the area of portraying the wood grains; however, David's work need to hang on wall, subject matter is visible, one panel carries a subject at a time and the tones are flat whiles the researcher's work could be hang both on walls and in space as a banner for the viewer to gaze at both sides of the panel since it has two surfaces, no peculiar subject matter but mimicking of wood grains in its different dimensions and tones could be seen graduating. The researcher places the wood grain against the 'medium' to suggest 'equality' as a metaphor.



Fig 2.43
Refurbished Landscape (Nebraska City 1) 2008 - David Linneweh, oil, acrylic, graphite on wood, 12" x 16"
http://davidlinneweh.com



Fig 2.44

Re-Assembled Landscape (New Orleans 5)

2010 - David Linneweh Oil, acrylic, and graphite on panel 17" x 21"

http://davidlinneweh.com

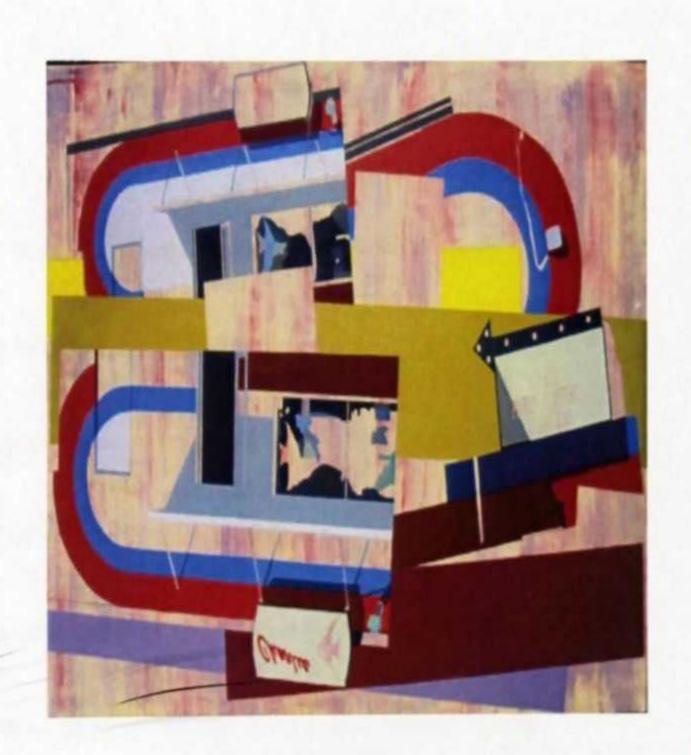


Fig 2.45
Re-Assembled Landscape (Pekin)
2012 - David Linneweh Oil, acrylic, and graphite on panel. 30" x 48"
http://davidlinneweh.com

CHAPTER THREE

EQUIPMENT, MATERIALS AND METHODS

3:1 Overview

The previous chapter dealt with the review of nature of wood grains, wood panels that could be use as a support, the formation of plywood and veneer, colour field painting and panel painting. These were significant in that they have bearing on the researcher's artistic creation. This chapter shall focus on the tools, equipment, materials and methods that assisted in the execution of the project. It also gives an account of some drawings which helped direct thoughts as to how the project will be. It also gives an account of the experimental surveys prior to the main project.

3.2 Tools:

Pencil: Was used to sketch ideas prior to the project.

Pen: Was used to highlighting the drawn ideas.

Tenon Saw: A type of saw used to cut across the grain of wood.

Rip Saw: A type of saw used to cut along the grain of wood.

Hand Plain: This was used to plain the wood.

Cutting Knife: Was used to cut the rope into sizeable length.

Jigsaw: Was used to cut the panels into sizes.

Painting Brush: This was used to apply the insecticide onto the wood, and also apply lacquer.

Artist Brush: was used to paint the images onto the wood panels.

Basin: A round open container used for holding an insecticide solution during wood preservation.

Abrasive Paper: Was used to abrade the wood panel / plywood to smooth finish.

Try Square: This tool was used to check the angles of the wood before cutting.

Tape Measure: Was used to measure the require length of the wood before cutting.

Paint Roller: A type of roller which is textured and was used to paint some of the images onto the panels.

3.3 Equipment:

Radial Arm Saw: This was used to cut packed panels across the grain of the wood.

Pillar Drill: Was used to drill holes into packed wood panels.

Belt Sander: A machine that was used in sanding the cross section of the wood panels.

Gas Stove: Was used to de-hair the rope.

Circular Saw: This was used to cut round galvanized metal pipe.

Grinding Stone: Was used to grind the cutting section of the metal after cutting.

Camera: An instrument used in recording events, taking photographs of illusions in nature for the research and the work procedures.

Welding Plant: This was used during welding of one metal to the other.

Nose mask: It was worn on the nose to prevent dust from being inhaled into the lungs.

Overall: It was worn as protective clothing.

Pair of Boots: It was worn on the feet for protection

3.4 Materials:

Marker Pen: Was used in detailing of the images.

Pastel: A medium used when working on preliminary drawings.

Acrylic Paint: This was used in painting the images onto the panels.

Sanding Sealer: A transparent substance that was used to seal the wood pores and also to raise the wood grains.

Rope: Was used to suspend or hold the panels in position.

Wood Panel / Plywood: A support for the main project.

Polyvinyl Acetate (PVA): white glue that was used to hold the ropes in position.

Insecticide: A chemical that was used to poison the wood fiber from insect attack.

Round Metal Pipe: Used as the holder to the panels.

Screw: Was used in aid of round metal pipe for holding.

Lacquer: This was used to enhance the wood grains and the paint.

Nylon Cord: A Threadlike materials that was used hold panels during the experimental stage.

Super Glue: This is an adhesive used to hold the cord in the panels.

Electrodes: This was used during welding of metal pipe and screw.

Drawing Sheet: A support used to sketch ideas and designs.

In the process, the methods and materials that the artist selects for creating the works initially transformed into different thing else hence the following figures:



Fig 3.46
Drawing (1) prior to project 2012 by Ekow Appiah
Pen, pastel on paper

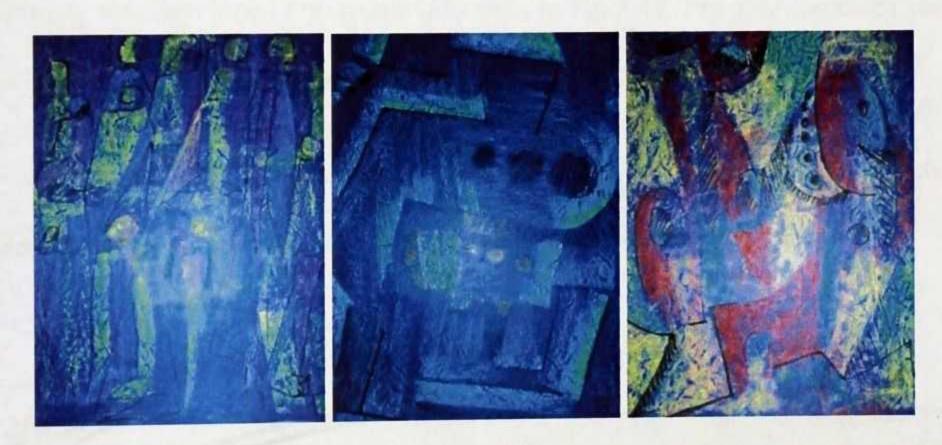


Fig 3.47

Developed project from drawing (1) 2012 by Ekow Appiah

Pen, pastel on paper

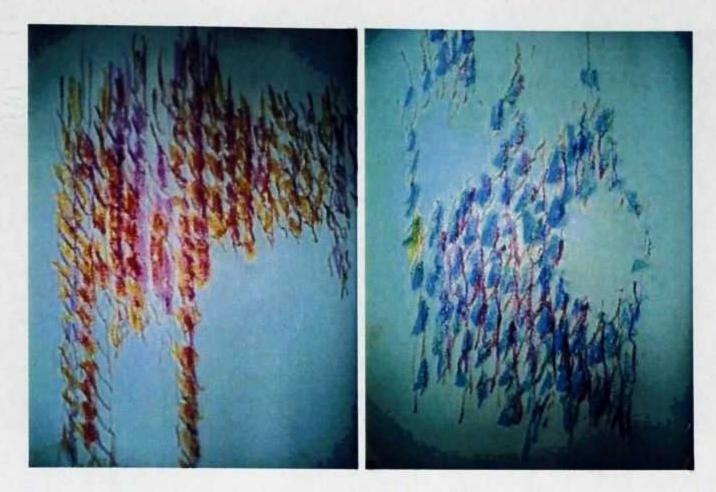


Fig 3.48
Drawing (2) prior to project 2012 by Ekow Appiah
Pen, pastel on paper

The above drawings and paintings indicate the researcher's effort in developing the ideas prior to the main project, Fig 3.46 shows the preliminary drawings which eventually was developed into painting as seen in Fig 3.47. Fig 3.48 indicates second drawing that was also developed into paintings in Fig 2.33-36.

To add to the above, many experimental works were executed to meet the researcher's 'topic', as a result of that the following works were done:



Fig 3.49
Panels soak in the
Preservative



Fig 3.50 Panels spread out to dry



Fig 3.51
Panels spread out after sjoining with rope



Fig 3.52
Panels hang out after joining with rope



Fig 3.53
Panels spread out for painting



Fig 3.54
Panels after painting



Fig 3.55 Experiment (1)



Fig 3.56 Experiment (2)

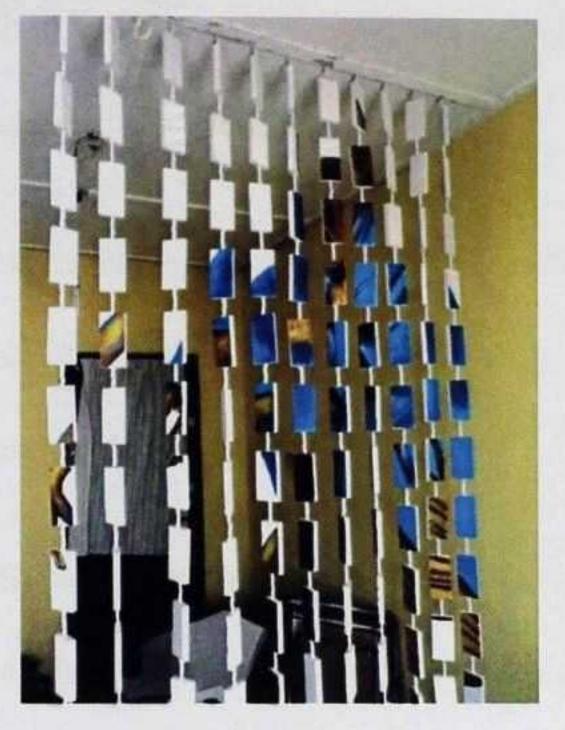


Fig 3.57 Experiment (1)



Fig 3.58 Experiment (2)

The aim of the above experiment is to identify suitable material which may have conceptual and theoretical frameworks that may articulate the Topic in question: 'Graining the Grains: A link to Equality'. Through the studio enquiry a material like 'wood' was identified as a suitable medium that can best convey the researcher's thought with respect to the topic above. Many processes went on in carry out such an experiment, but the researcher deems it appropriate to make it brief.

3.5 Procedure (experimental work)

The wood panels were cut into sizable shapes and sanded to a smooth finish.

The sanded wood is then soaked in the preservative (insecticide solution) to poison the fibre of the wood Fig 3.49. 'All timbers, especially their sapwood, contain food on which fungi and insect live. The idea behind timber preservation is to poison the food supply by applying a toxic liquid to the timber'. Peter (2003).

Wood panels were spread out to dry Fig 3.50. This follows the drilling of holes to contain the rope.

The panels were Sand with rough abrasive paper and follow with smooth one to give it smooth finish. PVA glue was coated on ropes and insert into the holes in the wood panel and left to dry.

The panels were spread out and paint is applied on them Fig 3.53-54. A figure was then drawn onto the panels whiles spread on the ground and painted Fig 3.55-56.

The final work was hanging vertically to see how the panels will stand on its own as compared to when on the ground Fig 3.57-58.

3.6 Appreciation and criticism

Insertion of ropes into wood panel holes has its own language to understand; the strands, which form the body of the rope is been woven in anticlockwise direction and pushed into the panel hole in clockwise direction.

The work being on the ground has its own unique beauty, but when hanged the ropes with its own twisting nature begin to control the flow of the panels. This was observed when the work was hanging but the researcher assumed that after painting it will flow as it expected.

In the process of painting the panels; something strange happen and that is the fascination nature of the 'wood grains' shown. The researcher begins to reconsider and maintains the grains instead of obscuring them. This will bring on board new discovery, as it will be more interesting than the former idea. Upon the discovery, many other things begin to reflect the known theory that may have bearing on the

subject (wood grains). Further analysis was done and through that the wood grains finds its way as an idiom to enforce and propose the idea of 'equality' in the organizational structure in the metaphorical sense. Looking at the wood grains as it is in isolation may not convey a strong argument and for that matter must accompany other medium: 'paint'. Moreover, this will lead to the next paragraphs where discovered ideas were unfold. Many will be said about this in Chapter Four.

3.7 First Discovery (institutional Ladder)

This is aim at describing the studio process, materials and methods that were employed to make the discovered ideas possible. Many techniques that surfaced in the course of execution will also be addressed; with the subject in mind: 'equality', attention will be paid to its connection toward the theoretical frameworks that will articulate the Topic in question.

3.8 Working process and methods (institutional ladder)



Plate 3.1 Cutting of ring with Radial saw



Plate 3.2 Displayed rings

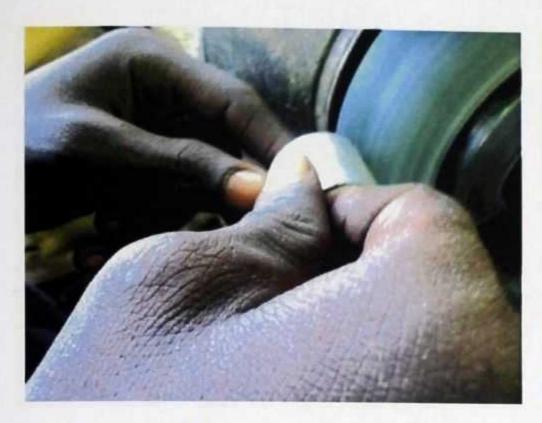


Plate 3.3 Grinding of rings



Plate 3.4 Welding of rings to screws



Plate 3.5 Seasoned wood (Board)



Plate 3.6 Rope ready for singeing



Plate 3.7 Cutting panels with tenon saw



Plate 3.8 Panels displayed on the floor

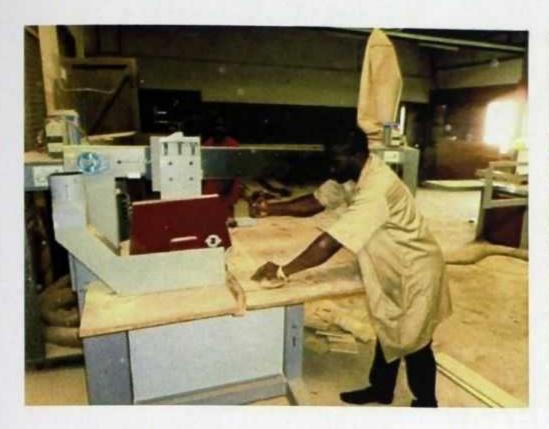


Plate 3.9 Cutting panels with Radial saw

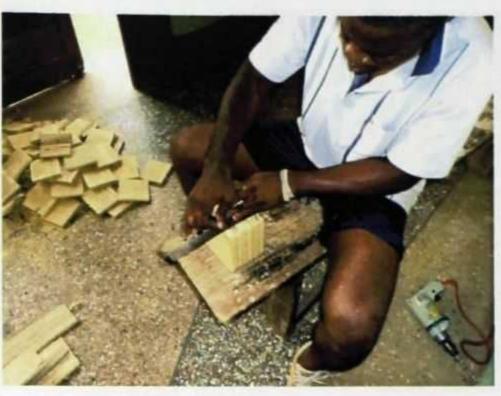


Plate 3.10 Marking out

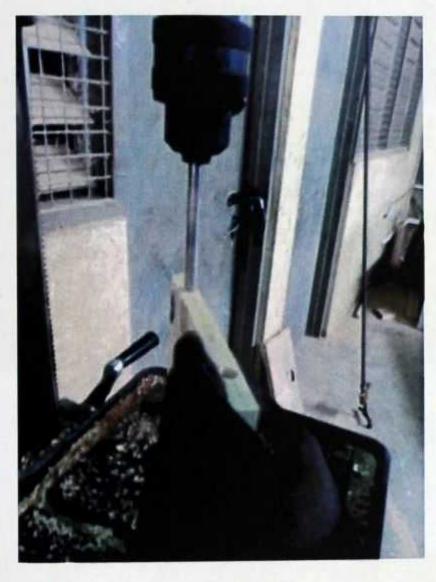


Plate 3.11 Panel drilling with Pillar drill Plate

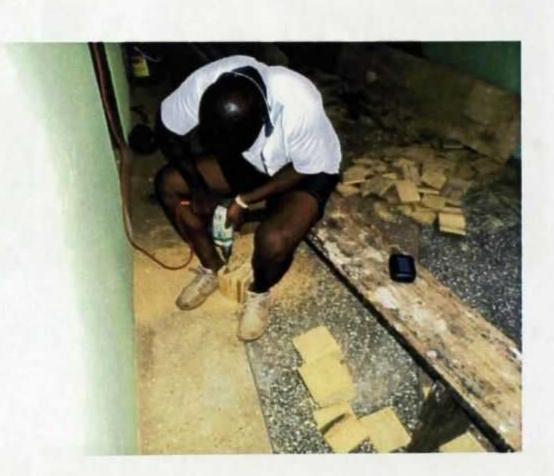


Plate 3.12 Panel drilling with Hand drill

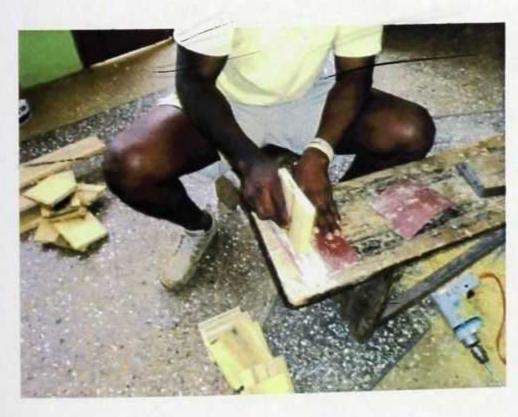


Plate 3.13 manual sanding



Plate 3.14 Drilled panels



Plate 3.15 Sanding with rotary sander



Plate 3.16 Spoiled panel

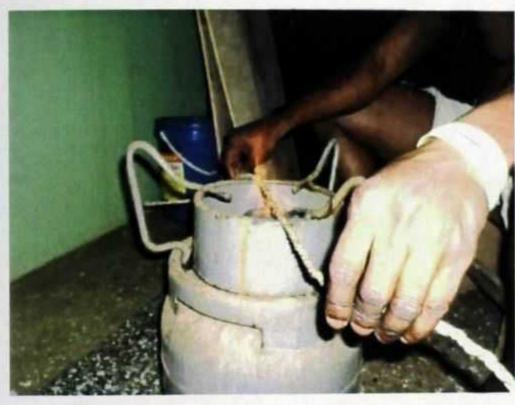


Plate 3.17 Singeing of rope



Plate 3.18 Treatment and drying of panels



Plate 3.19 Insertion of rope into panel



Plate 3.20 Checking of alignment



Plate 3.21 Drying after Insertion



Plate 3.22Application of sanding sealer



Plate 3.23 Sanding of sealer



Plate 3.24 Mimicking of grains



Plate 3.25 Highlighting of images



Plate 3.26 Roller application



Plate 3.27 After rolling technique



Plate 3.29 Sample of colour (1)



Plate 3.31 Closer view 1



Plate 3.28 After highlighting



Plate 3.30 Sample of colour (2)



Plate 3.32 Closer view 2



Plate 3.33 Test display 1



Plate 3.35 Test display 3



Plate 3.37 Test display 5 at Artist residence



Plate 3.34 Testing display 2



Plate 3.36 Test display 4



Plate 3.38 Perspective view at Artist residence



Plate 3.39 Test display 6 at Paa Joe Stadium. KNUST



Plate 3.40 Test display 7 at Paa Joe Stadium KNUST



Plate 3.41 Carrying of the work at Paa Joe Stadium KNUST



Plate 3.42 Hanging the works at Paa Joe Stadium KNUST



Plate 3.43 Test display 8 (Close view) at Paa Joe Stadium KNUST



Plate 3.44 Frontal view of works at Paa Joe Stadium KNUST



Plate 3.45 Perspective view At Paa Joe Stadium KNUST

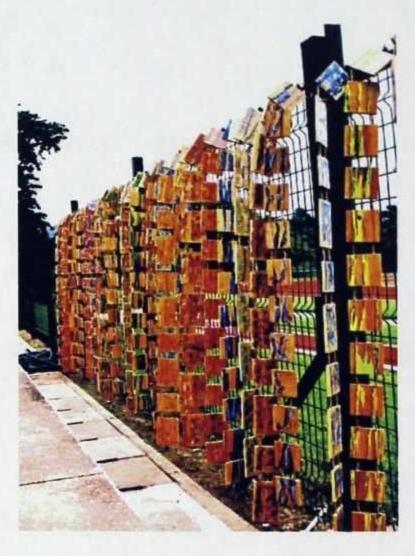


Plate 3.46 Test display 9 at Paa Joe Stadium KNUST



Plate 3.47 Back view At Paa Joe Stadium KNUST



Plate 3.48 Close view At Paa Joe Stadium KNUST

3.9 Procedure for first discovery (institutional ladder)

Panels were cut into suitable shapes and were made into them with a diameter 8mm to contain rope, see Plate 3.11-12.

Panels were submerge into an insecticide solution to prevent insect attack; and spread out to dry after 30 munities.

Proper sanding was given to make it very smooth to receive lacquer.

PVA glue is apply onto the rope and fixed into the panel hole, Plate 3.19.

After fixing the rope then spread out to dry. Careful was taken in order not to pull out the rope.

Sanding sealer is then given to raise the grains and to satisfy the porosity of the wood, see Plate 3.22.

Sanding was done with fine grade of abrasive paper to make the panels very smooth and dust off with clean rage, Plate 3.23.

Images are painted onto them both sides of the panels see Plate 3.24-26. At a point roller was used to create other unique images. Spaces were left whiles painting; this is done consciously or unconsciously. The idea of doing this is to mimic some of the grains and live some without, and again with respect to the theory that informs the project. However, some images were done without being mimicking the grains yet stand out as such. To add to that, the researcher was placing 'the paint' and 'the wood grains' on the same pedestal thereby giving them equal chance to be recognized as important. This is with the view of addressing the issue of Leader's power over a subordinate pertained in an organization and other social institutions.

Pen is then used to highlight the images afterwards coating over with lacquer to make it glossy and protective to the paint and the wood.

Finally, the work is test display to ascertain how final exhibition will be.



3.10 Appreciation

Institutional Ladder is an installation of ladders, which are made of panels and ropes. The panels have on them paint which reflect the images that call for interactivity. There were (32) thirty-two ladders, each ladder is made up of (12) twelve panels, which represent rungs and the rope as stile.

The final work was test exhibited at different locations namely: researcher's residence and room, sculpture department and Paa Joe Stadium at KNUST. Interestingly, upon different location of test exhibition the researcher discover one display format that may articulate very well with respect to the concept of the project in question. To add to that, the mode of the display and the nature of the work are not innocent and for that matter, its interpretation will be discussed in chapter four (4).

Through studio enquiries, another discovery was notified and that is in 'Second Discovery, (The Institution Pyramid).

3.11 Second discovery (The institutional Pyramid)

The aim of this project is to highlight the second discovery that emerges out of the first discovery: 'Institutional Ladder'. The researcher deems it appropriate to be part of the project and that follows the working process and methods thereof.

3.12 working process and methods (institutional pyramid)



Plate 3.49 Marking out



Plate 3.50 Cutting with Ripe saw

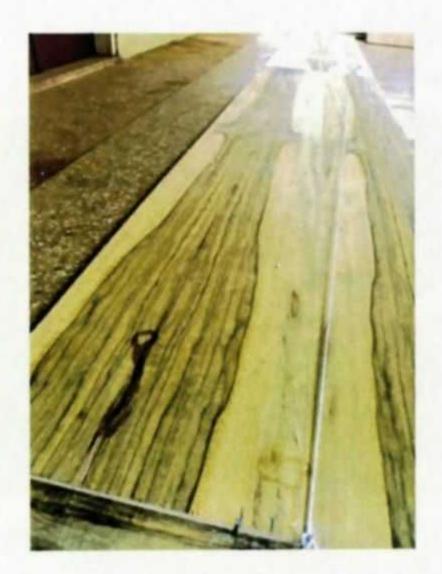


Plate 3.51 Setting out



Plate 3.52 Marking with chalk liner

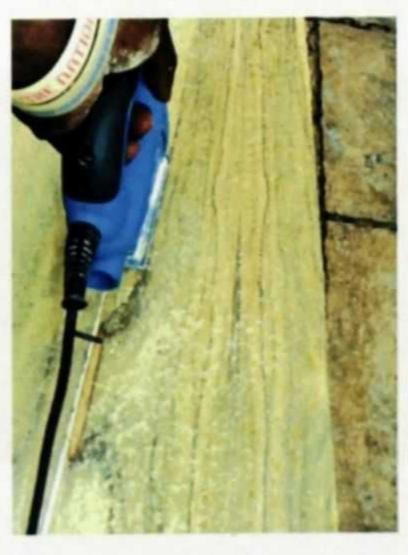


Plate 3.53 Cutting packed plywood



Plate 3.54 Manual planing



Plate 3.55 Shooting of plywood on jointer



Plate 3.56 Inspection after shooting



Plate 3.57After shooting

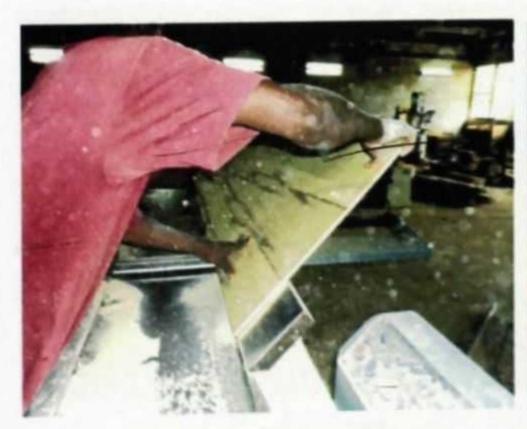


Plate 3.58 Cutting mitre on the Plywood with jointer



Plate 3.59 Repairing of mitre

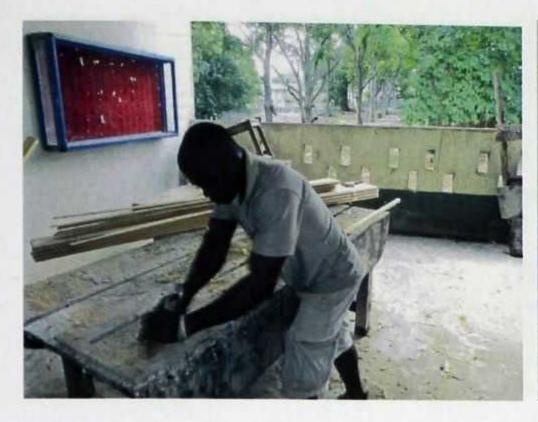


Plate 3.60 Cutting mitre for Beads



Plate 3.61 Planning of wood for Beads



Plate 3.62 Taking measurement For Beads



Plate 3.63 Beads displayed

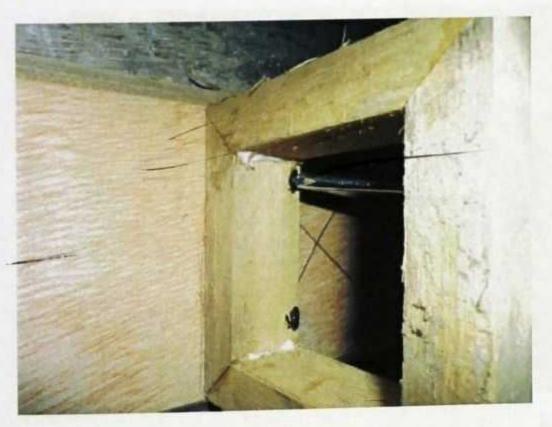


Plate 3.64 Fixing of beads

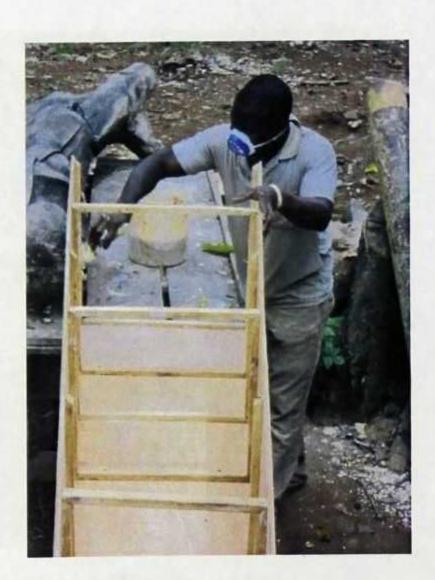


Plate 3.65 Application of Preservative



Plate 3.66 Assembling of haves



Plate 3.67 Networking of grains



Plate 3.68 Fixing of veneer



Plate 3.69 Sanding



Plate 3.70 Application of sanding sealer



Plate 3.71 After painting





Plate 3.72 Application of lacquer

Plate 3.73 Assembling of works

3.13 Procedures (institutional pyramid)

Required size of the plywood was cut for four sides of the pyramid and put in a specified position to get the apex and the base, see Plate 3.51; chalk liner was suitable in this respect afterwards cut to form the pyramidal shape. This was then transferred to other sides of the panel (board) to obtain the accurate size.

The panels were then planed both manual and machine to get accurate sizes, see Plate 3.54-55.

Mitre was introduced on the edges of the panel board at an angle of 45° degrees since the edges must meet at right angle of 90° see Plate 3.58. Afterwards correction of the mitre was also done with use of hand plane to improve the angle since the machine cannot do all. Beads were also made as internal frame for the support of the panels see Plate 3.60-63.

The panels were fixed on the Beads with the use of screws to make them firm and strong.

The pyramids were then test assemble to identify any fault that may occur in the cause of production for correction see Plate 3.66.

Different sections were put together and for that matter the grains may not connect to the other section, this then called for networking of the grains. The researchers cut veneer of the same grains pattern and fixed to connect one section's grains to the other, see Plate 3.67.

The work was abraded to receive sanding sealer. This sealer will seals the pores and raises the grains of the plywood for enhancement see Plate 3.70. The work was sand again to give smooth finish to receive paint.

Looking at the grain pattern of the wood, the researcher did mimic some by painting over them and leave some interesting once to stand out to create parallel between the 'grain' the 'paint'. The permanent marker was then used to highlight the mimic grain represented by paint and the natural grains as well.

Through the development of my studio investigation, emotional and conceptual responses to the materiality of the paint, rope and wood, and the issues thereof many mode of display came to mind; and that will be identify in the exhibition pictures.

3.14 Appreciations

Institutional Pyramid is an installation of three huge pyramids that measure (19ft by 2ft) and (15ft by 10^{II}); these are made of plywood. The surface had paint, which reflects the images as grains that call for interactivity. The works together with the Institutional ladder were exhibited at commercial area. Below are the pictures.

3.15 Procedure for the exhibition of the works at commercial area, knust



Plate 3.74 Assistant helping to fix the works at commercial area, KNUST



Plate 3.75 Supporting the work

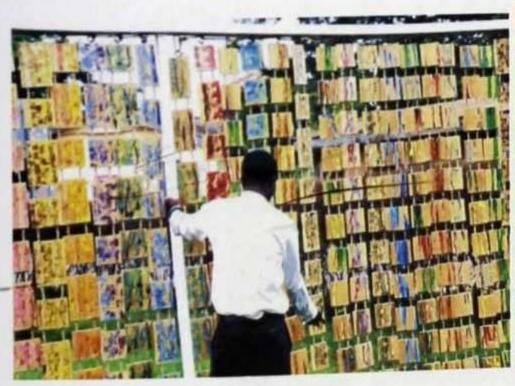


Plate 3.76 Displayed works at Commercial area, KNUST



Plate 3.77 Displayed pyramid



Plate 3.78 Lecturers asking questions about the work



Plate 3.79 Interpretation of the work

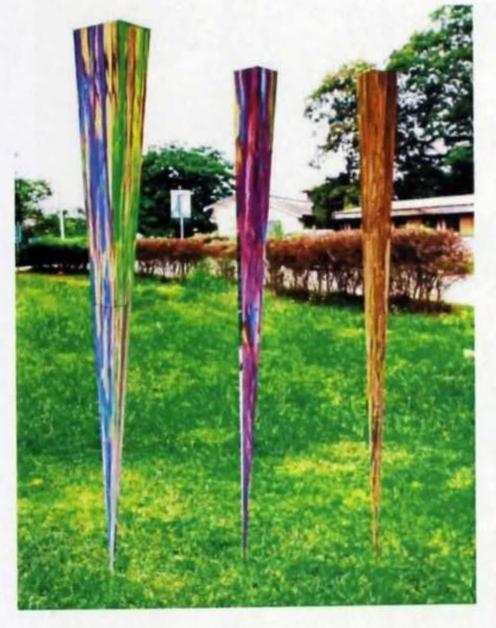


Plate 3.80 Pyramid with apex down



Plate 3.81 Pyramid with apex up



Plate 3.82 Pyramid in horizontal display

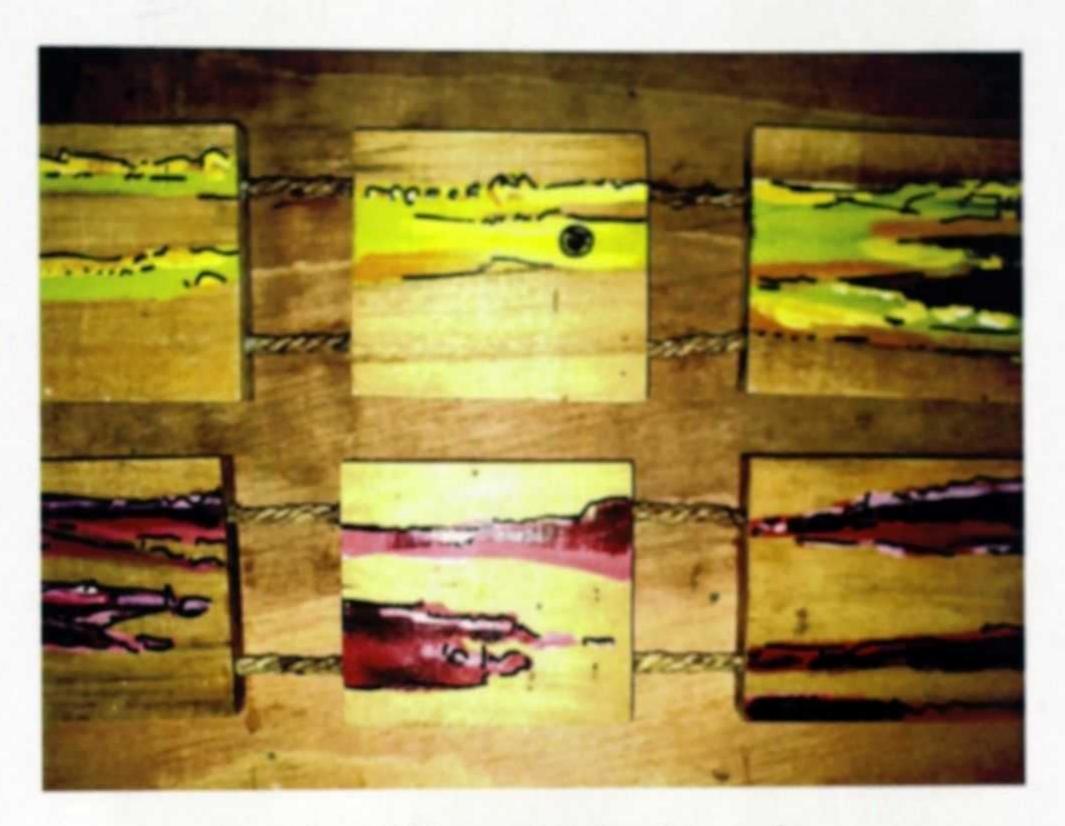


Plate 3.83 Horizontal display of the panel



Plate 3.84 Vertical display (close view)

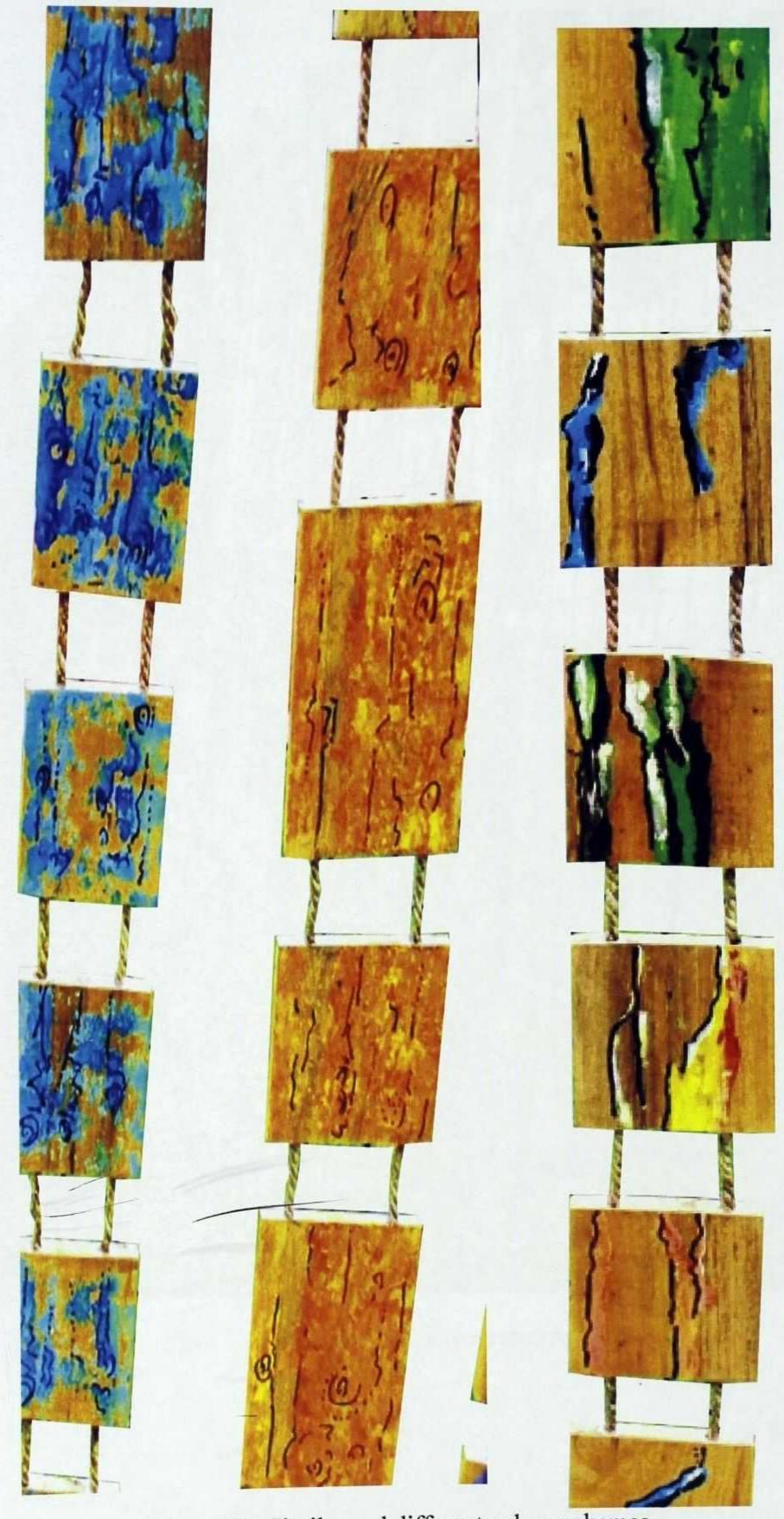


Plate 3.85 Similar and different colour schemes



Plate 3.86 Vertical display (perspective view)



Plate 3.87 Vertical display (hanging by the side)



Plate 3.88 Horizontal display (stretched on frame)



Plate 3.89 Pyramid (perspective view)



Plate 3.90 three pyramids put together



Plate 3.91 Three pyramids put together (close view)

CHAPTER FOUR

RESULTS

4:1 Overview

Chapter three deals with the equipment, materials and methods used in executing the project. This chapter discusses the practical results of the project by appreciating, sanalyzing and interpreting them. Various materials, techniques and displays had emanated because of the working process, which should be discussed and that is what is paramount in terms of appreciating, analyzing and interpreting of the results.

4:2 Analysing the results: Interpretation and Appreciation

Painters have their style and techniques in one reason or the other. Colour field painters like Helen Frankenthaler, who does "soak-stain" technique, in which she poured turpentine-thinned paint onto canvas, producing luminous colour washes that appeared to merge with the canvas and deny any hint of three-dimensional illusionism. With Raeford lile, he tries to evoking colour of blood and explosions that occurs during bombing. He pours paint onto canvas and turns it rapidly for the paint to accentuate. In addition, Kelly presents bold and contrasting colours free of gestural brushstrokes or recognizable imagery, panels protruding gracefully from the wall, and irregular forms inhabiting space as confidently as the viewer before them.

Upon analysing the artists works in the above paragraph and that of the researchers' works through the studio enquiries with material in question, discovered how material could influence the artistic technique hence the mimicking the 'wood grains'. The methods of application of the paint seen on the surface of the support came as result of pursuing the direction of the grains consciously and unconsciously

with the use of brush and roller. Again, wood grain that has unique characteristics can also be controlled base on the artist's intention. In the world of Artist like Kawasaki, Sol and Linneweh works for example; most of the subjects are seen across the grains. However, the researcher's work incline to follow the direction of the grains given it emphasis. The latter's works are on single panel which is meant to hang on walls whiles former's is on separate panels with images on both sides support by rope which give them the 'connections'; this in contrast can be hang on wall or hang in space as a banner.

Moreover; Wood by its nature develops in layers be it solid wood or plywood. The critical look at fig.2.12; shows that tree develops based on its layers right from the 'pith' to the 'outer bark'. Again, plywood in fig. 2.21 indicates how plies of wood are used in its composition, which denotes 'layers', and finally the 'rope' that has layers of string that are inter-twine give its strength. The following paragraph gives a vivid interpretation to support the assertion stated.

The practical engagement with the materials that could be seen throughout the works are never innocent in the context of conceptual issues that the works portray. The term 'layers' as characteristic of solid wood, plywood and rope as seen in fig.2.12-21 make the material stronger; this metaphorically indicates the unity among members in the institutions as a school, a family, a bank and others, right from subordinates through to the 'boss' at the top which makes the organization strong.

In most organizational hierarchies, the lower status person is dependent on his super ordinates for task definition, performance evaluation, remuneration, opportunities for advancement, etc. Jones et al (1963). One may ask, if these are ways some Supervisors or leaders exert their powers on the subordinates then it does not mean

the former should be regarded as inferior by the latter in that sense, besides when subordinates execute tasks given to them, the credit goes to each member in an organization. To add to that, as Thibaut and Kelley 1970 cited by Jones et al point out that, one way in which the lower power person can blunt or reduce the power which the high status person actually applies is to become attractive to the latter. To consider the above; at what point and in what means the subordinate can be attractive to the Supervisor to lower his or her power? Don't subordinates have equal power, as the Supervisor when the latter needs assistant from the former? The 'subordinate' in this context refers to the cleaner or any lower rank member in an organization and the 'Supervisors' is their immediate leader. This is what each member in the organization must note. Therefore, the researcher deems each member in an organization as a layer in the materials used and the paint juxtaposes the grain in equal effect to give equal level.

Separate panels in the 'Institutional ladder', supported by ropes show the unity and connections among the members in an organization. Again, the 'Institutional pyramid' that has a square base represents equality in an organization. The mode of display as seen in Plate (3.80-81) indicates the following: the pyramid with apex up shows the 'Supervisors' at the top oppressing the 'subordinate' as Marx (1833) may say patricians and plebeians or oppressors and oppressed. Moreover, pyramid with apex down indicates the 'subordinate' suppressing the 'boss', this is against the equality the researcher is talking about. However, pyramid in horizontal display in plate 82 demonstrates the equality the researcher is recommending and consequently placing the Supervisor and the Subordinate at the same level in the horizontal display format.

A Supervisor must know that he / she is a 'Ply' and need two or more plies which happen to be the members to champion the organizational goals and for that matter not to be relegated to the background.

Looking at the 'paint' and the 'grains' which are placed side by side on the same level in contrast to 16th century panel painting which emphasis is on the 'subject matter' and for that matter obscuring the beauty of the grain. This indicates how far art can go in terms of materials used, the techniques applied, the mode of display and any other things that will make the art unique in its nature.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMEMDATIONS

5.1 Overview

The previous chapter dealt with the analysis of result: interpretation and Appreciation of the studio practice. This chapter summarizes the practical results of the project, draws conclusions and proffers recommendations

5.2 Summary

Many painters today have their own preference of producing artwork that is done on canvas and pay less attention to the use of wood panel as a support especially its fascinating grains that can enhance the work. Wood panel being support for 'panel painting' was in use some time ago until the emergence of canvas. In order to successfully carry out this project, the researcher did some investigations and reviewed other artists' works. Experimental works were carried to learn the use of the materials, tools, techniques and skills to come out with the final works namely: Institutional ladder and Institutional pyramid.

Through the researcher's engagement with the material(s), it was discovered that the 'grain' being the one characteristic of the wood directed the artist's intention of the methods and skills implored in the project hence placing the 'wood grains' and the 'paint' on the same pedestal; as 'the support' and 'the paint' became subject for interactivity. Wood grains and paint being the main subject of this project is metaphorically demonstrates the importance of 'The subordinate' and 'The supervisors' in an organization.

The works were all brought out for an exhibition at Paa Joe stadium and Commercial Area at KNUST. Some of the lecturers and students were present to appreciate the work. However, Comments were passed and that have been taken care of.

5.3 Conclusion

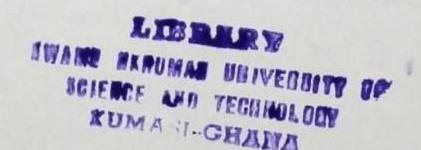
Many leaders / supervisors today use their powers to shadow their 'subordinates' for some reason being that they are the 'Leaders' and all they say is final and they know and do better than the latter. The above statement placed 'wood' as a material in a metaphorical context to address the issue of the supervisor and the subordinate. Leadership is about people not individual; what makes you 'a leader' in the absence of your subordinates?

The researcher was drawn to the material (wood) due to physical characteristics and emotional and personal connection in connection with creative artistic process. Wood 'grains' by its nature appear fascinating hence the researcher tries to mimic its effect with 'subject' in mind by the use of opaque material to enhance and unearth the wonderful characteristics thereof.

The context within which the work was situated with respect to the issue of The Supervisor and The Subordinate, made it conceptual and the interpretations thereof whipped up interest in the viewers to appreciate what other meanings a 'material' can possess through the methods and the skills.

5.4 Recommendations

1. The use of canvas for painting has been in the practice for a long time in modern African without paying much attention to the wood panel as a support. However, wood being good material can be equally used albeit for smaller size dimensions.



- 2. Two surfaces of the panel can be utilized instead of one side. However this can equally influence the mode of display when the two sides need to be shown.
- 3. Panels that are big and heavy make the work difficult to convey. The researcher recommends that smaller once can be done to make them easy carry about.
- 4. There are synthetic grained materials in the market, for anyone who wants to explore this area may go for since it may be easier when using it.
- 5. Obscuring the entire surface (support) with paint is a cliché, but rather surfaces that artists work on at a point can be left out without paint and this will enhance the beauty and the concept of the work.
- 6. The idea of painting being two dimensional Art is not always true since the definition is centered on the medium (paint) without considering the nature of the support as part of the work. This was emerged during the execution of this project as painting was done on three dimensional surfaces which form part of the work.
- 7. The use of powered drilling machine is suitable than manual one.
- 8. The use of 1/8 plywood will equally do the work as 3/8 since it will make the work light to carry about.
- 9. Supervisor must recognize the work and personality of their subordinates as important as theirs since they all work together as one group for a common goal. Supervisors must encourage, appreciate and respect the role of the subordinate in an organization.

Reference

- 1. Audrey Kawasaki. Retrieved 18 April 2013 from http://www.audrey-kawasaki.com
- 2. Amy sol. Retrieved 22 March 2013 from www.amysol.com
- 3. Brett, P. (2002). Bench Joinery. United Kingdom: Nelson Thornes Ltd.
- 4. Brett, P. (1981). Carpentry and Joinery for Building Craft Student. (2nd Ed). London: Hutchinson and Co. publication Ltd.
- 5. Brett, P. (2003). Wood Occupation. United Kingdom: Nelson Thornes
- 6. David Linneweh. Retrieved 25 April 2013 from http://www.davidlinneweh.com
- 7. Edward. J. E. et al. (1963, April). Tactics of Ingratiation among Leaders and Subordinate in a Status Hierarchy.
- 8. Helen Frankenthaler. Retrieved 17 April 2013 from http://www.artnet.com
- 9 Max, K. (1883). Manifesto of the Communists. (2nd Ed). New York: International Working Association.
- 10. Mitchell, G. (1982). Carpentry and Joinery. (2nd Ed). London: Cassel.
- 11. Macmillan (2007). English Dictionary for Advanced Learners (2nd Edi)

 Macmillan Publishers Limited. Print.
- 12. Panel Painting. Retrieved 29 may 2013 from en.wikipedia.org/wiki/panel-painting.
- 13. Raeford Lil. Retrieved 4 April 2013 from http://www.berkshirefinearts.com
- 14. Thomas, G. W. Textbook of Wood. London: E. J. Arnold & Son Ltd.
- 15. Walton, A. J. (1947). Woodwork in Theory and Practice. London: George G. Harrap and Company Ltd.
- 16. Wood Grain. Retrieved 6 June 2013 from encylopedia2.thefreedictionary.com/wood-grain

- 17. Wollen, P. (1987). Introduction, fashion/oreintalism/the body.
- 18. Wood Grain. Retrieved 6 June 2013 from http://www.workshopcompanion.com