COURSE GUIDE

FMC116
ELEMENTS OF FILM PRODUCTION

Course Team Prof. Babson Ajibade (Course Writer) - Cross River State University of Technology
Dr Venatus Nosike Agbanu (Course Editor)
Lateed A. Adelakun, PhD. (Head of Department)

NATIONAL OPEN UNIVERSITY OF NIGERIA

National Open University of Nigeria
Headquarters
University Village
Plot 91, Cadastral Zone
Nnamdi Azikiwe Expressway
Jabi, Abuja

Lagos Office
14/16 Ahmadu Bello Way
Victoria Island, Lagos

e-mail: centralinfo@nou.edu.ng
URL: www.nou.edu.ng

Printed 2022

ISBN: 978-978-058-548-8

CONTENTS **PAGE**

INTRODUCTION

This course, *FMC116: Elements of Film Production* is designed for students studying to acquire a B.Sc. in Film Production. The course is divided into 3 Modules and 10 Study Units. It is aimed at giving students a strong professional background on the principles, materials, techniques, and technologies for visual design in film productions. The course simplifies and explains the elements of design, colours and space, and makes it possible for students to understand the processes for simple set design, prop-making, special effects, costume, makeup and graphics in film production.

At the end of this course, the students should be able to understand and use the principles of visual design to produce simple sets and props, and also be able to explain the roles of special effects, costumes and makeup in film production. As a result of to the technical nature of this course, students are advised to be attentive to the exercises, illustrations, self-assessment and tutor- marked assignments, including tutorial classes that are linked to this course.

WHAT YOU WILL LEARN IN THIS COURSE

In this course,*FMC116: Elements of Film Production*, you will be introduced to the principles of visual design, including colour, set design, prop-making, special effects, costumes, makeup, animation and graphics. You will learn how to identify, mix and use colours in practical exercises, as part of the basic processes of visual design.

COURSE AIM

This course aims to give students a basic understanding of visual design in film production, using elements such as colour, set design, props, special effects, costume, makeup, animation and graphics. It is hoped that the knowledge gained from this course will enhance students' proficiency in the application of elements of visual design in film production.

COURSE OBJECTIVES

At the end of this course, you will be able to understand the basics of the following:

1. The colour wheel and how colours relate to each other.
2. The difference between set design and prop-making.
3. Types and uses of special effects.
4. The difference between costume and makeup.
5. The difference between animation and graphics.

WORKING THROUGH THIS COURSE

To complete this course, you are required to study all the units, the recommended text books, and other relevant materials. Each unit contains some self-assessment exercises and tutor-marked assignments. Also, at some point in this course, you are required to submit the tutor-marked assignments. You are required to take a final examination at the end of this course. Below are the components of this course and what you are expected to do.

STUDY UNITS

There are 10 study units integrated into 3 modules in this course, as follows:

1. Module 1: Introduction to Principles of Visual Design

Unit 1: Elements of Design
Unit 2: Understanding colours

2. Module 2: Materials and Methods for Simple Set Design and Prop-making.

Unit 1: Understanding Set Design
Unit 2: Understanding Props in Productions

3. Module 3: Special Effects in Film Production

Unit 1: Technologies and Techniques of Special Effects
Unit 2: Making and Using your own Blood Squib for Special Effects

4. Module 4: Introduction to Costume and Makeup.

Unit 1: Understanding Costume in Productions.
Unit 2: The Nature of Makeup for Performance.

5. Module 5: Understanding Animation and Graphics.

Unit 1: Introduction to Animation
Unit 2: Understanding Graphics

References and Further Readings

Each unit in all the 3 modules has a list of books suggested for further reading, to help you have better understanding of the content and context of the course.

ASSIGNMENT FILE

You shall be given an assignment file in due course. In this file, you will find details of all the work you must submit to your tutor for marking. The marks you obtain from these assignments count towards the final grade for the course. There is a total of 10 tutor-marked assignments for this course.

PRESENTATION SCHEDULE

The presentation schedule to be included in this course guide will provide you with important timelines for completing and submitting each tutor-marked assignment. Please endeavour to meet the deadlines.

ASSESSMENT

In this course, you shall be assessed through tutor-marked assignments and the written examination too. Conversely, you are expected to pay attention to the creative processes outlined in the course, and demonstrate keen understanding in the tutor-marked assignments you shall submit for formal assessment, in accordance to the timelines given. The work submitted will count for 40% of your total course mark, while the final examination will account for 60% of your total score.

TUTOR-MARKED ASSIGNMENTS (TMA)

In this course, there shall be 10 TMAs, representing one assignment for each of the 10Study Units. It is mandatory to submit all your TMAs, from which your best four scores will be entered. Therefore, complete and send your assignments to the Tutor within the stipulated timeframes. If you have compelling reasons for default, please contact your Tutor before the assignment is due to discuss the possibility of extension. Extension will not be granted after the deadline, unless in extraordinary cases.

FINAL EXAMINATION AND GRADING

The final examination for *FMC116: Elements of Film Production* will last for a period of three hours and have a value of 60% of the total course grade. The examination will consist of questions which reflect the self-assessment exercises and tutor-marked assignments that you have previously done. Since the examination will cover all subject areas, it is strongly advised that you review your TMAs before the examination.

COURSE MARKING SCHEME

The following table includes the course marking scheme

Assessment	Marks
Assessment 1-10	10 assignments, 40% for the best 4. Total 10% x 4 = 40%
Final Examination	60% of overall marks
Total	100% of Course marks

COURSE OVERVIEW

The Table below indicates weekly schedule of activities and the assessment assignments.

Module/Unit	Activity	Week	Assessment
	Course Guide	Week 1	
Module 1	**Introduction to Principles of Visual Design**		
Unit 1	Elements of Design	Week 1	Assignment 1
Unit 2	Understanding colours	Weeks 2& 3	Assignment 2
Module 2	**Materials and Methods for Simple Set Design and Prop-making**		
Unit 1	Understanding Set Design	Week 4 & 5	Assignment 4
Unit 2	Understanding Props in Productions	Week 5 & 6	Assignment 5
Module 3	**Special Effects in Film Production**		
Unit 1	Technologies and Techniques of Special Effects	Week 7	Assignment 7
Unit 2	Making and Using your own Blood Squib for Special Effects	Week 8& 9	Assignment 8
Module 4	**Introduction to Costume and Makeup**		
Unit 1	Understanding Costume in Productions	Week 10	Assignment 10
Unit 2	The Nature of Makeup for Performance	Week 11	Assignment 11

Module 5	Understanding Animation and Graphics		
Unit 1	Introduction to Animation	Week 12	Assignment 12
Unit 2	Understanding Graphics	Week 13	Assignment 13

HOW TO GET THE MOST FROM THE COURSE

There is a difference between distant learning and attending a conventional university. While students in conventional university programmes have physical contacts with lecturers and tutors within designated places in distance learning, the study units replace the lecturer in virtual spaces. The huge advantage of distance learning is that you can use specially designed study materials to learn at your own time and place. Using carefully designed modules, units and exercises, the study guide shows you what to study and how to study, including the relevant texts to consult. All of these are woven together to achieve a set of learning objectives. Therefore, to make the most of your time using this study guide, the moment you finish a unit, you need to go back and read the objectives and ensure that you achieved them.

To facilitate easy learning, self-assessment exercises are provided throughout the units, to aid personal studies answers are provided at the end of the unit. Working through these self-tests will help you to achieve the objectives of the unit and also prepare you for tutor-marked assignments and examinations. The following practical strategies will help you make the most of this study guide:

1. Carefully read the course guide.
2. Organise a study schedule for yourself, using a diary and time-table in which you have noted the times you will spend on each unit and its specific exercises.
3. Stick to your own schedule, because the main reason why students fail is that they fall behind in their course work.
4. Since this course has practical components, please ensure you buy and use your design materials in specified exercises.
5. If you get into difficulties with your schedule, please let your tutor know before the problem leads you to a failure.
6. Consult appropriate books from your recommended texts as you work through each unit.
7. Do all your assignments carefully, because each of them has been carefully designed to give you specific knowledge and help you develop certain skills.

8. Before moving to the next unit on your schedule, review the objectives of each study unit to confirm that you have achieved them.
9. After submitting an assignment to your tutor for marking, do not wait for its return before starting on the next unit. Keep to your schedule and pay particular attention to your tutor's comments on the tutor-marked assignment form and on the assignment. Consult your tutor as soon as possible if you have any questions or problems.
10. After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved all the objectives in all the units.

FACILITATION

A total of eight hours of tutorial is provided in support of this course. You will be notified of the dates, time and location together with the name and phone number of your tutor as soon as you are allocated a tutorial group. Your tutor will mark and comment on your assignments, keep a close watch on your progress and on any difficulties you might encounter and provide assistance to you during the course. You must mail your tutor marked assignment to your tutor at least two work days before the due date. Your tutor will mark and return them to you as soon as possible.

Make every effort to attend all tutorials, as that is the only chance to have one-on-one contact with your tutor and get instant responses. You can raise any problem encountered in the course of your study. For maximum benefit, prepare a question list prior to attending tutorials to enable you participate actively in the discussion. If you need help with any aspect of your study, do not hesitate to contact your tutor by telephone, e-mail or discussion board.

MAIN COURSE

CONTENTS **PAGE**

MODULE 1 INTRODUCTION TO PRINCIPLES OF VISUAL DESIGN

UNIT 1 ELEMENTS OF DESIGN

Unit Structure

1.0 Introduction

This unit is designed to introduce you to the elements of design. It enables you understand design and how proper use of the elements help us achieve visually pleasing productions. To make the most of this unit, it is recommended that you go through the entire units and module in the systematic manner it is presented in this course.

2.0 Objectives

At the end of this unit, you should be able to do the following:

- Understand what design is.
- Understand the elements of design.
- Understand how the elements are used together to produce pleasing designs.

3.0 Main Content

3.1 What is Design?

In our context of film production, a design is a carefully planned arrangement of all the materials and objects of set, props, costume, makeup, special effects and other visual elements that help realize a production. While the term, “design” may refer to the contemplation and production of an item of production such as a prop or costume, it also refers to how to arrange all the items produced or acquired for use in

achieving the visual dimensions of a film production. Remember that a film is a “motion picture” made by using a camera.

However, all the objects the camera must catch within its picture frame, including their colour, size, how they are arranged and the visual effects must be designed through a careful process of contemplation, planning, drawing, materials manipulation and spatial arrangement. All of these processes that produce the visual elements in a film production are considered to be design activities. The person who produces a design is called a designer. The sequence of design activities is called design process, which is determined by the specific nature of what is being produced, the materials used, and the function of the final product. For instance, if you are producing a calendar to decorate a wall, you only need to print out that design with a desktop computer system on paper, which will take only a few minutes of design processes.

However, if you were to design a house as part of the set for a film shoot, you will need several materials, including planks of wood, plywood, nails, paint, etc, including the services of a carpenter, painter and electrician (if you do not have those skills yourself). Even if you have these skills yourself, you cannot do it all alone because it requires several days and man-hours to achieve. In essence, the design process for a wall calendar is much simpler than that for more complex visual elements of film production such as set construction, prop making or even makeup design.

Since film is a collaborative production of several artists, designs do not just remain in the mind as contemplated ideas. They must be put down on paper as sketches, drawings, and colour renderings that specify material, dimensions, colours and placements. This becomes a template of the design that enables the director and other artisans working on the production to know what to expect and how to proceed with construction for the production. All designs must satisfy certain goals and constraints such as aesthetic, functional, economic, or socio-political considerations. A design should project the beauty of the intended production, contribute to telling the film’s story, fit a pre-determined budget and also fall in line with the social and political frameworks of the audiences. From the explanations above, it is clear that the process of creating a design can be brief (quickly produced) or lengthy and complicated, involving considerable reflection, modelling, materials manipulation, finishing and re-design.

3.2 The Elements of Design

In visual design, elements of design are the basic building blocks for all types of art works. They are what make up the work of art. The elements are shown in the illustration you will find using this link:

https://www.brightonk12.com/site/handlers/filedownload.ashx?moduleinstanceid=273&dataid=1168&FileName=design-elements-principles.pdf

The elements of design are listed and explained in details bellow:

(i) Line

Line is an element of art used to draw or define shape, contours, and outlines and to also suggest mass and volume. A line may be a continuous mark made on a surface with a pointed tool or implied by the edges of shapes and forms of an object.

Characteristics of Lines

Lines have certain characteristics, which includes the following:

a) *Width*: thick, thin, tapering, uneven.
b) *Length*: long, short, continuous, broken.
c) *Direction*: horizontal, vertical, diagonal, curving, perpendicular, oblique, parallel, radial, zigzag.
d) *Focus*: sharp, blurry, fuzzy, choppy.
e) *Feeling:* sharp, jagged, graceful, smooth.

Types of Line

a) *Outlines*: Lines made by the edge of an object or its silhouette.
b) *Contour Lines*: Lines that describe the shape of an object and the interior detail.
c) *Gesture Lines*: Lines that are energetic and catch the movement and gestures of an active figure. *Sketch Lines*: Lines that capture the appearance of an object or impression of a place.
d) *Calligraphic Lines*: Greek word meaning "beautiful writing." Precise, elegant handwriting or lettering done by hand. Also artwork that has flowing lines like an elegant handwriting.
e) *Implied Line*: Lines not actually drawn but created by a group of objects seen from a distance. Implied line is the direction an object is pointing to, or the direction a person is looking at.

(ii) Shape

A shape is formed when a line crosses itself or intersects with other lines to enclose a space. Shape is two-dimensional and has length and width. Shapes, geometric or organic, add interest. Shapes are defined by boundaries, such as a lines or colour, and they are often used to emphasize a portion of the page. Everything is ultimately a shape, so you must always think in terms of how the various elements of your design are creating shapes, and how those shapes are interacting

Categories of Shapes:

a) Geometric Shapes: Circles, Squares, rectangles, and triangles. We see them in architecture and manufactured items.
b) Organic Shapes: Leaves, seashells, and flowers are organic shapes. We see them in nature and they have free flowing, informal and irregular characteristics.
c) Positive Shapes: In a drawing or painting, positive shapes are the solid forms (positive space) in a design such as a bowl of fruit. In a sculpture, positive shapes are solid areas of the sculpture that remain after removing portions of the sculpture.
d) Negative Shapes: In a drawing or painting, the space around the positive shape is negative space. Negative space can form a shape when it meets a positive shape. Negative space can include the sky or spaces between objects. In sculpture, the negative space is the portion that is removed from a sculpture. The negative space can become a shape when it meets the positive form of the sculpture.
e) Static Shapes: Shapes that appear stable and resting.
f) Dynamic Shapes: Shapes that appear to be moving and active.

(iii) Form

The form of a work is its shape, including its volume or perceived volume. A three-dimensional artwork has depth as well as width and height. Three-dimensional form is the basis of three dimensional works of art such as sculpture and ceramics. However, two-dimensional artwork can achieve the illusion of form with the use of perspective and/or shading or modelling techniques. For example, shading a circle in a certain manner can give it the illusion of a sphere. Form is the three-dimensionality of an object, while shape is only two-dimensional. You can hold a form, walk around a form, and in some cases walk inside a form.

(iv) Colour

Colour comes from light and if light did not exist, we would not have colour. The main source of light in our universe is the sun. Light rays move in straight paths from a light source such as the sun. Whereas the sun's light appears to be white, the light includes all the colours of the spectrum. We can pass white light through a glass prism to separate all the colours and create a rainbow of colours. All objects in our environment are hit by light rays and some of the colour rays in the light are reflected by the objects. We are able to see objects because our eyes see only the colour reflected by the object. For instance, a blue ball reflects all the blue light rays. As designers, we use pigments in the form of powder, paste, liquid or solids to paint and create colour. In the next Unit, we shall discuss colour in detail.

(v) Value

Value is the range of lightness and darkness within a picture. Value is created by a light source that shines on an object creating highlights and shadows. It also illuminates the local or actual colour of the subject. Value creates depth within a picture making an object look three-dimensional with highlights and cast shadows, or in a landscape where it gets lighter in value as it recedes to the background giving the illusion of distance.

Categories of Values

a) Tint is adding white to a colour paint to create lighter values such as light blue or pink.
b) Shade is adding black to a paint colour to create dark values such as dark blue or dark red.
c) High-Key is a picture with all light values.
d) Low-Key is a picture with all dark values.
e) Value Contrast is light values placed next to dark values to create contrast or strong differences.
f) Value Scale is a scale that shows the gradual change in value from its lightest value, (white) to its darkest value (black).

(vi) Texture

Texture is the surface quality of an object. A rock may be rough and jagged. A piece of silk may be soft and smooth, and your desk may feel hard and smooth. Texture also refers to the illusion of roughness or smoothness in a picture.

Categories of Texture

a) Real Texture is the actual texture of an object. Artists may create real textures in art to give it visual interest or evoke a feeling. Real texture occurs only in a three-dimensional sculpture or a collage. A piece of pottery may have a rough texture so that it will look like it came from nature or a smooth texture to make it look burnished.
b) Implied Texture in two-dimensional art is made to look like a certain texture but in fact is just a smooth piece of paper. Like a drawing of a tree trunk may look rough but in fact it is just a smooth piece of paper.

(vii) Space

Space refers to the whole area in which a three dimensional art work such as a chair in a constructed film set is displayed, or the surface such as paper upon which a two dimensional sketch is made. In both cases, the space used up by the work of art itself is called “positive space”, while the unused space surrounding the art is called “negative space”. Just as an actor can walk around objects in a film set to look at them, the eyes can also move around the unused spaces of a two dimensional drawing to look at the various components of the design.

Categories of Space

a) *Positive space* –is the actual space occupied by the object in a film set.
b) *Negative space* –is the unused space around the object in a film set.
c) *Picture Plane* is the flat surface of the drawing paper, on which you draw your designs.
d) *Composition* is the organization and placement of the elements on your paper or set design.
e) *Focal Point* is the object or area you want your audience to focus on.

3.3 Perspective

Perspective is the method used in a two dimensional art work to create three dimensional space. In visual design, there are two basic types of perspectives: aerial perspective and linear perspective.

Types of Perspective

Aerial or Nonlinear Perspective

This is the method of showing depth that incorporates the following techniques:

a) *Position* – Placing an object higher on the page makes it appear farther back than objects placed lower on the page.
b) *Overlapping* - When an object overlaps another object it appears closer to the viewer, and the object behind appears farther away.
c) *Size Variation* - Smaller objects look farther away in the distance and larger objects look closer to us.
d) *Colour* - Bright colours look as if they are closer to you and neutral colours look as if they are farther away.
e) *Value* - Lighter (not brighter) values look as if they are farther back and darker values look as if they are closer. For example, when you are travelling on the road, the forest in the distance often look bluish and lighter than the trees that are closer to the car you are travelling in.

Linear Perspective

This is the method of using lines to show the illusion of depth in a picture. The following are types of linear perspective.

a) One-point perspective - When lines created by the edge of an object or building look like they are pointing to the distance and these lines meet at one point on the horizon. To see an example, stand in the middle of a railway line and look into the distance. The

lines of the rails will appear to come together in the distance, as the picture bellow shows.

b) Two-point perspective – This is an additional line added to one-point perspective that goes to a different point on the horizon line. For example, stand at the corner of a building and look down both sides. You will notice the effect of a two point perspective as shown in the diagram above. This type of perspective comes to play when your design sets for a film production.

4.0 Self-Assessment Exercise

- What is a design?
- What are design activities?
- List 7 elements of design.
- List 3 types of perspective.

5.0 Conclusion

All the elements of design explained above are vital to visual design, and are also very important to the principles and practice of production design. To be able to design for film production, it is important to learn and master these basics of visual design by reading the text, following the tutorials and doing the assignments diligently.

6.0 Summary

In this unit, we have been able to understand what design is, including the elements of design, and how the elements are used together to produce pleasing designs. We have also identified and understood types of spaces and how the principles of perspective help to use and define space in design.

7.0 Tutor-Marked Assignment

1. Why is design necessary in film production?
2. Explain two types of spaces.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Lupton, Ellen and Phillips, Jennifer. Graphic Design: The New Basics; Princeton Architectural Press. New York, NY; 2004.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

UNIT 2 UNDERSTANDING COLOURS

Unit Structure

1.0: Introduction

In Unit 1, we had an overview of what design is, including its elements, types of spaces and how the principles of perspective help to use and define spaces in design. This unit introduces colour, its properties, how to mix and use them, including their basic meanings in design. To make the most of this unit, it is recommended that you get the materials stipulated, go through the entire unit and do the exercise indicated.

2.0: Objectives

At the end of this unit, you should be able to do the following:

- Understand what colour is.
- Understand how to mix and derive colours in design.
- Understand how to apply colours to surfaces to produce pleasing designs.

3.0 Main Content

3.1 Materials Needed

As a design subject, this course has a practical component that must be fulfilled to enable you make the most of it. Therefore, you have to buy some basic design materials that will help you realise the objectives of this course, and do your assignments. The following Table indicates the materials you need to buy, what they are used for, with an illustration under it (Fig. 1):

Material	**Quantity**	**Uses**
Sketch Pad (A4 size)	1	It is the paper on which you will make all your initial sketches and put down your ideas.
2b pencil	1	For sketching and drawing
Eraser	1	For erasing unwanted pencil lines.
Plastic ruler		For drawing straight lines
Poster colours (at least 50ml of white, black, yellow, blue, red)	1 set	For colouring your designs
Colour pencils	1 set	For colouring designs
Set of brushes	1 set	For applying poster colour to your designs
Plastic palette	1	For mixing poster colours
Craft knife	1	For cutting design paper and other light materials
Scissors	1	For cutting design paper and other light materials
Drawing board or table	1	The surface on which you will work

Fig. 1: An illustration of the materials needed for this course. They can be bought at any art or stationary shop

3.2 What is Colour?

Colour is the element of art that is produced when light strikes an object, and is reflected to the eye. In other words, the colour of objects you see is determined by the nature of light that shines on it, and is reflected into your eyes. As a production designer, colour is your basic language, and it defines how the dramatic action will be communicated and understood by your audience. All the visual aspects of the production such as set, props, costume, makeup, etc. depend on colour to have identity and meaning. For example, if you selected one colour for a film set, props, costumes, makeup and lighting, it will be difficult indeed for your audience to visually separate each object in the scenery from the rest. At best, it will be a mass of one colour, which will distract your audiences from understanding the film. In other words, the communication in a film production will likely be less “effective” if one colour is used on all the visual elements. Just imagine you are seeing a movie and everything in the scene is yellow. It will be difficult for you to pick out details and follow the story.

To prevent this problem in visual design, colours are carefully selected for various aspects and objects in the scenery, and combined in such a way as to help tell the story, along with the action. While some props and items used in a film set may be acquired in the colours needed, most others

need to be specifically coloured according to the pre-determined production design. While a design is a carefully planned arrangement of all the materials and objects of set, props, costume, makeup, special effects and other visual elements that help realize a production, colour is the element that gives character and visual meaning to a production.

In visual design, colours are applied to surfaces as pigments. Pigments are finely milled substances that provide the necessary colours for painting a surface or object. Pigments particles are not used alone but combined with binders. Binders are substances that both bind the particles of pigment together, and make them adhere to the surface on which the paint is applied. Various types of paints, with specific types of binders are available to the designer. The choice will depend on the surface to be painted and the method used. Paints can be purchased in buckets, jars or in spray cans. While paints from buckets and jars can be applied with brushes and paint rollers, those in spray-cans are sprayed on. Thus, as a film production designer, it is important to know about colours, how they are mixed and used, including the meanings that colours assume. Generally, the type of paint you can use will be determined by the type of surface you wish to paint. Some paints are water-resistant, while others are water-soluble. However, whichever type of paint used needs to be mixed before it is used. Experienced designers do not use paint straight from its container. Paints are mixed to get the right colour and shade for the particular job at hand

3.3 Categories of Colour

A Colour Wheel (Fig 2) is a design tool used to organize colour. It is made up of the following categories:

- Primary Colours: Red, Yellow, and Blue. These colours cannot be mixed, they must be bought in some form.
- Secondary Colours: Orange, Purple/Violet, and Green. These colours are created by mixing two primary colours.
- Tertiary Colours: A tertiary colour or quaternary colour (called intermediate colours) is a colour made by mixing either two secondary colours or one primary colour with one secondary colour adjacent to it on the colour wheel. Tertiary colours are a combination of full saturation of one primary colour plus half saturation of another primary colour and none of a third primary colour. Tertiary or intermediate colours include Red Orange, Yellow Green, Blue Violet, etc.; mixing a primary with a secondary creates these colours.
- Complementary Colours: These are colours lying opposite each other on the colour wheel. When placed next to each other they look bright and when mixed together they neutralize each other.
- Warm colours are those such as yellow, orange and red.

- Cold colours are those such as blue, green, grey

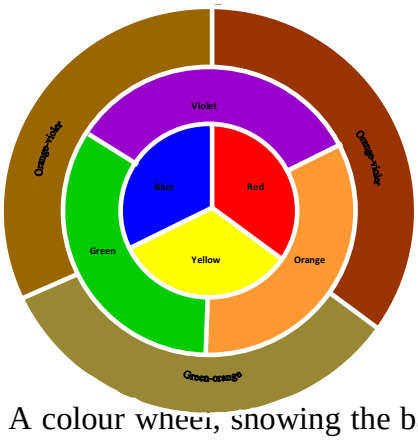


Fig. 2: A colour wheel, showing the basic colours explained above. Not the purity and brightness of the primary colours in contrast to others on the wheel.

3.4 Some Colours and their Common Meanings

At the emotional level, all colours have a meaning, which do help a designer to add visual layers to a production film. While warm colours such as red, yellow, or orange invigorate us, cool colours such as blue, green and grey tend to have a calming effect on audiences. But there is also a cultural level to the meaning of colours. And it is essential to learn about this cultural extension of colours. For instance, in many parts of the Western world and Africa, black is the colour of death and mourning. However, among many cultures of Asia and the Edo of Nigeria, the colour of mourning is white. There are certain basic meanings attached to some colours, as follows:

S/No	Colour	Common Symbolism
1	Red	Anger, passion, rage, desire, excitement, energy, speed, strength, power, heat, love, aggression, danger, fire, blood, war, violence.
2	Yellow	Wisdom, knowledge, relaxation, joy, happiness, optimism, idealism, imagination, hope, sunshine, summer, dishonesty, cowardice, betrayal, jealousy, covetousness, deceit, illness, hazard.
3	Blue	Faith, spirituality, contentment, loyalty, fulfilment peace, tranquillity, calm, stability, harmony, unity, trust, truth, confidence,

		conservatism, security, cleanliness, order, sky, water, cold, technology, depression.
4	Orange	Humour, energy, balance, warmth, enthusiasm, vibrant, expansive, flamboyant.
5	Green	Healing, soothing, perseverance, tenacity, self-awareness, proud, unchanging nature, environment, healthy, good luck, renewal, youth, vigour, spring, generosity, fertility, jealousy, inexperience, envy.
6	Purple/Violet	Erotic, royalty, nobility, spirituality, ceremony, mysterious, transformation, wisdom, enlightenment, cruelty, arrogance, mourning, power, sensitive, intimacy.
7	Brown	Materialistic, sensation, earth, home, outdoors, reliability, comfort, endurance, stability, simplicity
8	Pink	Love, innocence, healthy, happy, content, romantic, charming, playfulness, soft, delicate, feminine.
9	Black	No, power, sexuality, sophistication, formality, elegance, wealth, mystery, fear, anonymity, unhappiness, depth, style, evil, sadness, remorse, anger.
10	White	Yes, protection, love, reverence, purity, simplicity, cleanliness, peace, humility, precision, innocence, youth, birth, winter, snow, good, sterility, marriage (Western cultures), death (Eastern cultures), cold, clinical, sterile.
11	Silver	SILVER – riches, glamorous, distinguished, earthy, natural, sleek, elegant, high-tech.
12	Gold	Precious, riches, extravagance. warm, wealth, prosperity, grandeur.

3.5 Steps for Mixing Colours

1. To mix orange

a) Open the bottle of yellow poster colour.
b) Scoop some unto the pallet.
c) Put a few drops of red poster colour unto a different position on the pallet.
d) Using the bottom of your brush, put a little bit of red poster colour in the yellow.
e) Mix the two colours very thoroughly with the bristle part of your brush.
f) If you need to, add a bit more red to achieve your desired orange colour.
g) In mixing colours, always make sure that each colour is placed on a different point on the pallet to avoid muddling up, as shown below.

2. To mix pink

a) Open the bottle of white poster colour.
b) Use the bottom of the brush to scoop some unto the pallet.
c) Clean the bottom of the brush each time you use it.
d) Use it to scoop a few drops of red poster colour unto a different position on the pallet.
e) Using the bottom of the brush, take a little bit of red poster colour and put in the white colour.
f) Mix the two colours very thoroughly with the bristle part of the brush.
g) If you need to, add a bit more red to achieve your desired pink colour.

3. To mix green

a) Open the bottle of yellow poster colour.
b) Use the bottom of the brush to scoop some unto the pallet.
c) Clean the bottom of the brush.

d) Scoop a few drops of blue poster colour unto a different position on the pallet.
e) Using the bottom of the brush, take a little bit of blue poster colour and put in the yellow colour.
f) Mix the two colours very thoroughly with the bristle part of the brush.
g) If you need to, add a bit more blue to achieve your desired green colour.

4. To mix dark green

a) Mix your green following the steps in "3" above.
b) Open the bottle of black poster colour.
c) Use the bottom of the brush to scoop some unto the pallet.
d) Clean the bottom of the brush.
e) Using the bottom of the brush, take a little bit of black and put in your green poster colour.
f) Mix the two colours very thoroughly with the bristle part of the brush.
g) If you need to, add a bit more black paint to achieve your desired dark green colour.

5. To mix purple

a) Open the bottle of red poster colour.
b) Use the bottom of the brush to scoop some unto the pallet.
c) Clean the bottom of the brush.
d) Use it to scoop a few drops of blue poster colour unto a different position on the pallet.
e) Using the bottom of the brush, take a little bit of blue poster colour and put in the red colour.
f) Mix the two colours very thoroughly with the bristle part of your brush.
g) If you need to, add a bit more blue to achieve your desired purple colour.

6. To mix light purple

a) Mix your purple following the steps "5" above.
b) Open the bottle of white poster colour.
c) Use the bottom of the brush to scoop some unto the pallet.
d) Clean the bottom of the brush.
e) Using the bottom of the brush, put a little bit of your purple poster colour in the white colour.
f) Mix the two colours very thoroughly with the bristle part of your brush.
g) If you need to, add a bit more purple paint to achieve your desired light purple colour.

Now you have learnt how to mix colours and derive both light tones and dark shades. In mixing colours, always remember that the weaker colour is always first before you apply the stronger colour.

3.6 Applying Colour to Surfaces in Production Design

Many objects of set and props require us to apply colours to them either to make them look nice or to make them fit to the production design and scenery. Different objects will require different kinds of paint, depending on the materials used in making them. Some paints like poster colour are water soluble, acrylic colour is water soluble when wet but is water resistant when dry. Oil paints are water resistant when dry and are best for objects that will be handled often. Some of the suggestions that you can experiment with are shown in the Table below.

Type of Set/Prop object	**Type of Paint**
Paper	Poster colour, acrylic paint
Beads	Oil paint, Acrylic paint
Glass works	Oil paint
Wood	Oil paint, Acrylic paint
Plastics	Oil paint, Acrylic paint
Pottery and clay	Oil paint
Most materials	Spray cans

Steps for Applying Colours to Surfaces in Production Design

1. Painting Pottery

- Cover your work table with old newspaper.
- Use a clean rag to remove all dust from the pot.
- Following the steps in colour mixing, mix the colour of your choice.
- If you will like to apply multiple colours to your pottery, mix all colours separately.
- Use a brush to take some paint from the pallet and avoid dripping.
- Gently apply the colour to the pottery, brushing to and fro to achieve an even spread of paint.
- If you want patterns on the pot, you must draw them in pencil before you start to paint.

- In painting drawn objects or patterns, hold the pot and use smaller brushes to apply the paint.
- To avoid contaminating your paints, wash brush thoroughly before using it on other colours.
- While working, place all brushes (bristle up) in the cup, as shown in the picture bellow.

- If your work requires several colours, allow the first to dry before you apply the next colour.
- After painting, allow some time for the paint to dry.
- Clean up your work space.
- Wash your hands thoroughly with soap and water. If you used oil paint, you may first clean your hands with turpentine or kerosene before washing with soap and water.

You can use the above procedure to paint any set or production object of your choice. What needs be considered is the overall theme, scenery and predetermined design. Budget is also a crucial consideration, as some types of paint are more expensive than others.

4.0 Self-Assessment Exercise

- List the 3 primary colours.
- List the 3 secondary colours.
- List the 3 tertiary colours.

5.0 Conclusion

There are more colours than indicated on the colour wheel above. However, for our purposes here, the basic ones are indicated to help you understand colour in the context of design. Primary colours are the purest

forms, from which all others are mixed and derived. Two primary colours mix to give you a secondary colour. Two secondary colours mix to give you a tertiary colour. But intermediate colours result from mixing primary and secondary or secondary and tertiary colours. Colours are very vital in design for film production, as all aspects of the movie depend on colour as a visual metaphor for aesthetics, functional or emotional communication with audiences. To be able to design for film production, it is important to learn and master the basics of colour by reading the text, following the tutorials and doing the assignment diligently.

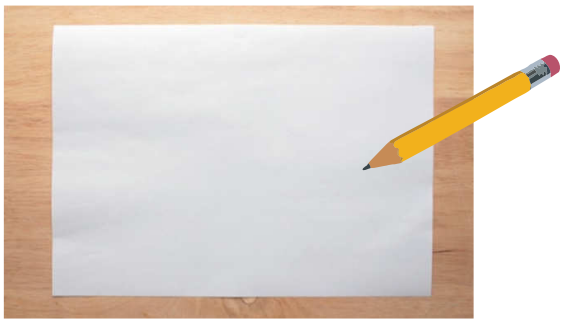
6.0 Summary

In this unit, we have been able to understand what colour is, how to mix them to derive other colours, including the common meanings that certain colours portend. We have also understood primary, secondary, tertiary and intermediate colours and their relationship to each other. These have serious implications for film and production design.

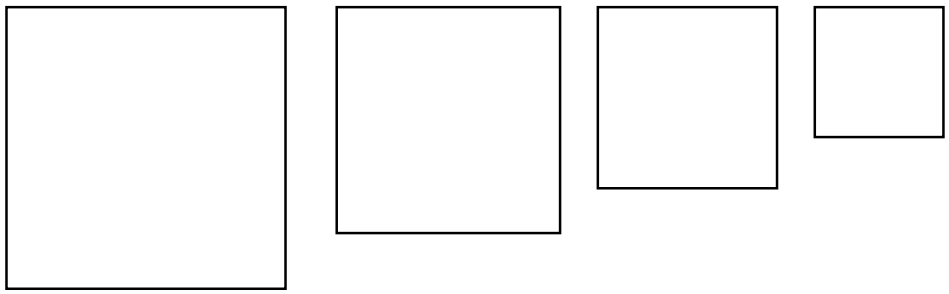
7.0 Tutor-Marked Assignment

*Application of the **Elements of Design***

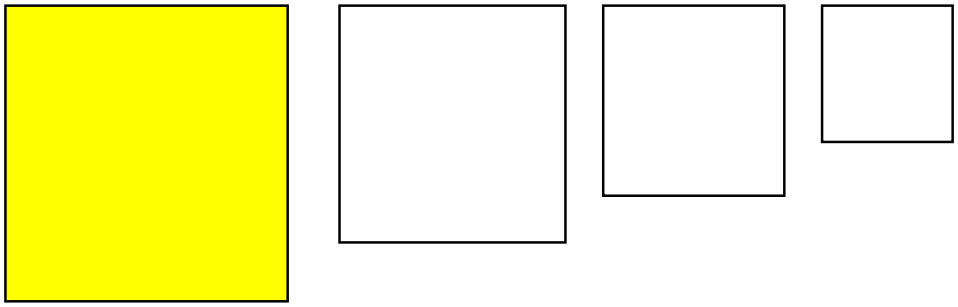
1. Tear out a sheet from your A4 sketch pad. Place the paper landscape (long side down) on your drawing board.



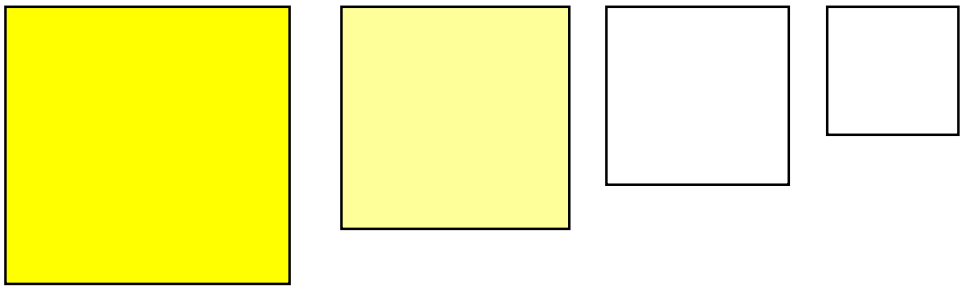
2. Using a ruler and pencil, draw four squares of size 4cm, 3.5cm, 3 cm and 2.5cm, as indicated bellow.



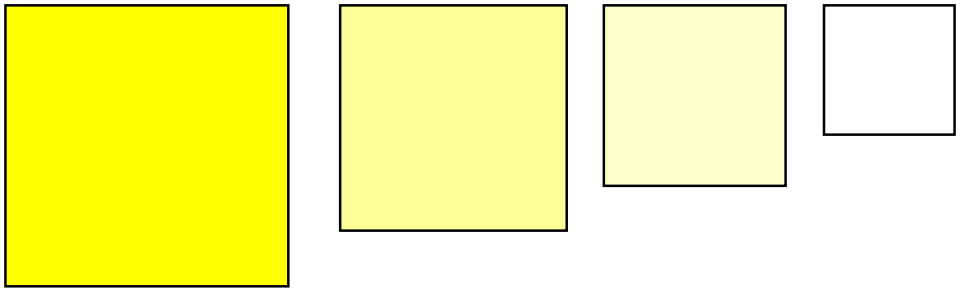
3. Put some yellow colour in your poster colour box into a space in your plastic palette, add a little bit of water and use a small brush to apply it in the largest square.



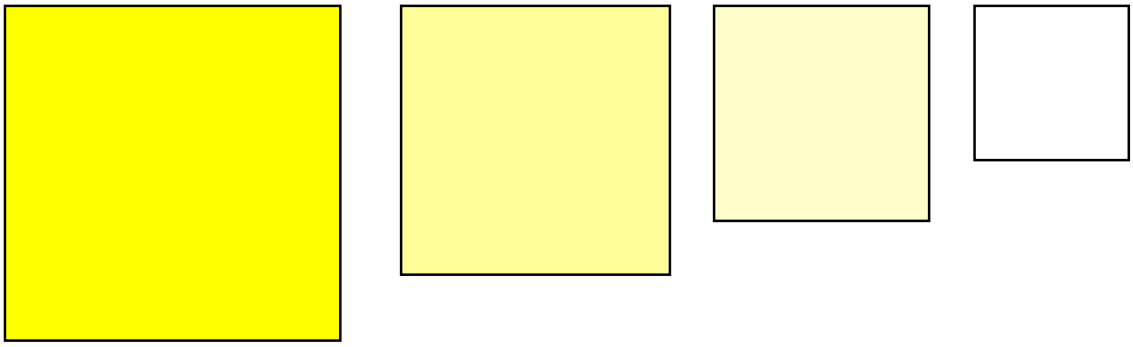
4. Put a bit of the yellow into another space in the pallet and mix some white to it. Apply this new colour to the next square with a clean brush.



5. Taking this second colour, mix a bit more white paint into it and paint the next square.



6. Take some of this third colour and mix some more white paint into it. Then paint the last square.



In this exercise, you have used some of the elements of design such as shape, line, space, colour and value, as follows:

a) You have chosen a particular shape, which is square.
b) You have used lines to draw the squares.
c) You have used both positive space and negative space to arrange the squares.
d) You have used the colour, yellow, to represent the squares.
e) You have used value to vary the colour in the squares.
f) You have created a perspective on your paper, using the arrangement of squares of different tints of yellow colour.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

UNIT 3 UNDERSTANDING SET DESIGN

Unit Structure

1.0: Introduction

This unit introduces you to the nature of set design and the materials and methods of achieving them. In this unit, many of the ideas you learnt from Module 1 will be very useful. To make the most of this unit, it is recommended that you refer to previous units as you read and work ahead.

2.0: Objectives

At the end of this unit, you should be able to do the following:

- Understand what a set is.
- Understand how to design a set.
- Understand the materials and methods of set design.

3.1 Materials Needed

As noted earlier, this course has a practical component that must be fulfilled to enable you make the most of it. Therefore, you have to buy some basic design materials that will help you realise the objectives of this course, and do your assignments. The following Table indicates the materials you need to have, what they are used for, with an illustration under it (Fig. 1):

Material	Quantity	Uses
Sketch Pad (A4 size)	1	It is the paper on which you will make all your initial sketches and put down your ideas.
2b pencil	1	For sketching and drawing

Eraser	1	For erasing unwanted pencil lines.
Plastic ruler		For drawing straight lines
Poster colours (at least 50ml of white, black, yellow, blue, red)	1 set	For colouring your designs
Colour pencils	1 set	For colouring designs
Set of brushes	1 set	For applying poster colour to your designs
Plastic palette	1	For mixing poster colours
Craft knife	1	For cutting design paper and other light materials
Scissors	1	For cutting design paper and other light materials
Drawing board or table	1	The surface on which you will work
A piece of glass sheet	1	Used as cutting surface
A tube of UHU gum	1	Adhesive for joining parts together
Chipboard paper	2 sheets	For use as construction material

Fig. 1: An illus rse. They can be

3.2 What is a Film Production Set?

Films are shot within locations or settings. However, the location in which a film is shot needs not be a real one. It can be designed and constructed to mirror the real place. A film production set is then a place constructed to create the illusion of a real or imagined location. In filmmaking several factors may determine whether to build and use a set instead of travelling to an actual location to shoot. Such factors include budget, time constraints, weather/season, the need to control the environment, or that such a location does not exist are some of the reasons to shoot on a set. While sets are normally constructed on a sound stage or film studio backlot, any space modified to derive a different environment for filming is a set. The area behind or adjoining a movie studio, which contains permanent or temporary exterior buildings for outdoor scenes (in television or film production) is called a backlot. A sound stage (or soundstage) is a warehouse-like structure or room soundproofed and used for shooting in film and television productions. Generally, the size, quality, technical accuracy and technological possibilities within a set are determined by budget. The bigger the budget, the more elaborate a set can be and the more technological effects can be achieved within it. As an art form, filmmaking is illusion because its goal is to make the audience believe in the fictional world created. While this world may be very much like our own, it can also be a purely fantasy world that is far from possibility.

3.3 Set Construction

The process undertaken by a construction manager to build full-scale scenery, as specified by a production designer in collaboration with the director of a production is called set construction. The set designer researches the script, props and other things, and also produces scale drawings, scale models and scale paintings that all artisans in the team will use. Scale drawings are similar to what architects do, and generally include a ground plan, elevation, and section of the complete set, as well as detailed drawings of specific scenic elements. While models and paint elevations are normally made by artists, software such as AutoCAD or Vector works are now used and 3D printers can also output scale elements of the set.

In filmmaking, the production designer is one of the main people in charge of film set construction. Working closely with the film's director to establish the look of each set, the production designer will also analyse the script, get the set designer to make designs and generate estimates for set construction costs. Set design and production demands several skills such as filmmaking, interior design, construction, and visual arts generally. Owing to this, the materials for set design and construction is also very diverse, ranging from metal, wood, fabric, glass, paper and just about anything else you can think of, all manipulated with the design and colour principles you learnt in Module 1.Sets are built as minimally as possible, to limit expenses and construction time. Using the right artists, cheap materials like plywood flats and styrofoam can be textured to create the illusion of brick walls, fancy facades, tiles and marble. .A well designed set interprets the script and director's vision and fits naturally into the scene.

3.4 Plywood Flats

Plywood is the most common material for set construction in film and television. In the film industry, artificial walls made from plywood (called "flats") are used for construction.
Plywood is typically sold in 4 x 8 (feet) sheets at building material stores. The following are some of the reasons that make plywood the material of choice for sets:

- It is lightweight
- Easy to cut
- Easy to assemble
- Easy to paint on
- Easy to take down
- Versatile
- Economical

Owing to its versatility, you can use plywood in any way you like to recreate any set of your choice. Plywood is preferred in set construction because it is easily and quickly manipulated, and it is far cheaper than other building materials like timber. To use plywood for set construction, you align them side-by-side, tape, texture and paint/wallpaper them to look the real wall. They are also used for the ceilings and floors, and finished as desired for the set. The ease and versatility in the use of plywood makes it possible to shoot without travelling too far away locations. Besides, in difficult scenes, it is also easy to move flats during shooting to create space for the camera.

3.5 Safety and Security in Set Construction

Safety and security are never compromised at set construction sites. Set construction companies prevent accidents from occurring by ensuring the physical integrity of the set, as well as maintaining safety during the processes of construction. Remember that set construction requires several types of equipment, tools, inflammable chemicals like paint and solvents. Misuse and carelessness in the use of any of these equipment and chemicals can lead to fatal injuries for artisans working on the set. Many equipment and hand tools are powered by electricity, and the set is also wired to provide light. Wiring must be professionally done to avoid the hazard of electrocution. Therefore, at set construction sites, safety gear like helmets, hand gloves, eye goggles and nose mask need be enforced to prevent accidents. Also, the general integrity of the set must be verified before actors start to use it, to prevent accidents. At set construction sites, fire extinguishers, safety experts and medical personnel are regular features.

3.6 How to Construct a Movie Set

(i) Plan the Set

You start-off set design by studying the script. As the most important part of a movie, the script has all the information about the story, characters and the plot. Take detailed notes as you thoroughly study the script to get an idea about how the set should look. Focus on the following:

- The setting (time period, geography, and general ambiance).
- Background props (as demanded in the script, and noting the scene characters need them)
- The mood of the script (light, serious or midway, which seriously affects your colour choices.
- Number of characters to fit in the space..
- Is it to be designed from the scratch or adapted from existing locations, such as a house?

(ii) Get a Brief from the Director

Working closely with the director, tease out any plans, ideas and props that s/he wishes to incorporate. Fundamentally, you need to keep in mind that your work is to contribute to the director's vision for the film. While some directors give stringent pointers, others may give free reign for set construction. Thus, set construction briefs from directors may vary from detailed and meticulous requirements to simple, natural looking environments. In interacting with the director, some of considerations are as follows:

- What tone, mood, or theme does the director wish to have?
- What colour ranges is desired of the director?
- How much is the budget for set construction?
- Are there necessary props/furniture that are not in the script?

(iii) Sketch and Discuss the Set Design with the Director

After studying the script, making your notes and getting a brief from the director, you need now to put your ideas into a clear sketch for the director to see. Your own sketch will be a freehand one, but the professional way is to use yours to get an architectural drawing of your ideas. This architectural drawing of the set is called “sketch-up”, which is to scale and detailed enough to make the director have a clear idea of what you wish to construct. In general, your work at this stage will include the following:

- Compile photographs of locations and rooms found somewhere or online, and show the director the ways to adapt them to fit the movie.
- Make good sketches with pencil on paper and list all walls, items, windows, doors, etc. in the room.
- Review clips and shots from other films that can be adapted to give character to your design.

Use the following links to see ideas of mock-up sketches for interior set design from Pinterest and Shutterstock:

1. https://www.pinterest.com/pin/663577326323856331/
2. https://www.shutterstock.com/search/drawing+room

(iv) Building a Set or Using a Location?

A set designer needs not always construct. It is possible to find a location that needs only minor adjustments or redecoration to fit the film’s needs. It is sometimes expedient to use both existing locations and constructed

sets in the same production. Together with the director, you need to make these decisions in the context of the budget. A built set is usually a 3-walled room, much like a theater stage, stocked will all of your props and furniture and designs. Constructing the set gives you full control over the design, but is more expensive and takes more time to actualise. The space of the missing 4th wall is used by the camera crew to film. Shooting on an adapted location is cheaper and faster but has conditions like permissions, limitations on modifications and the ability to fit all actors and crew with equipment in the space.

(v) Drafting a Budget for the Set Design

After all the planning, consultations, sketches and approvals, a budget needs be made to accommodate the entire production. It is a very tasking process because you need to know all the details about materials, equipment, labour for artisans, transportation, hire, fees and all other costs at the prevailing market prices. You often have to research these costs by calling vendors, going online and sampling markets. A budget must be such that it does not run out halfway into the production, but succeeds in completing the task.

(vi) Applying Colour to the Constructed Set

After constructing the set, the final stage is to paint the set in the colours defined by the script and the director's preferences, in terms of the mood and ambience of the scenes to be shot. Plywood surfaces are easy to paint with commercial emulsion paints, brushes and paint rollers. While you can do this yourself if you have the skills, the professional practice is to get a painter to do it. Avoid spills and drops by using masking tapes and covering painted spaces with cloth or newspaper to prevent stains. For your set, the paints available for use are indicated in the table below. In using any of these paints on your set, follow the steps and procedures outlined in the previous unit.

Type of Paints for Sets
Acrylic paint
Oil paint
Emulsion paint
Spray paint

4.0 Self-Assessment Exercise

- What is a film production set?
- What is a backlot?
- What is a Plywood Flat?
- List 7 advantages of plywood in set construction.

5.0 Conclusion

Sets are very vital for film production. While some sets are constructed for the purpose of the film, others are locations adapted for use. In deciding to construct or use a location, budget and time are the most vital considerations. While some films require simple sets, others, particularly those with unreal worlds require elaborate sets. You need always discuss with the director to arrive at a suitable choice, using sketches and mock-up drawings. Plywood is the cheapest set construction material in the industry because it is cheap and easy to manipulate and finished. Painting is the last stage in finishing the set construction using one of several paints available in the market.

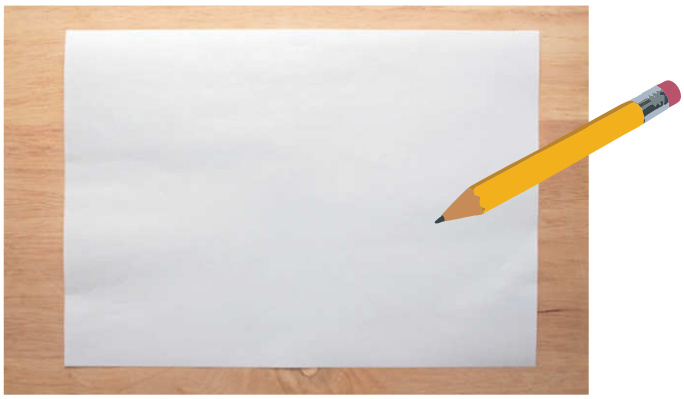
6.0 Summary

In this unit, we have been able to understand what a film production set is, how to decide for them and how to construct them. We have also understood that the most common material for set construction is plywood, because it is cheap, available, easy to handle and simple to paint.

7.0 Tutor-Marked Assignment

Make your own Mock-up of a Bedroom Set.

1. Tear out a sheet from your A4 sketch pad. Place the paper landscape (long side down) on your drawing board.



2. Seated against one wall of your bedroom, place the drawing board on your knees.

3. Using a ruler and pencil, use your bedroom to draw a mock-up of a production set.
4. Colour the set appropriately with your poster colour or colour pencil.
5. Using your ruler, measure and draw out 3 walls on the chipboard paper.
6. Indicate the doors and windows on the walls.
7. Placing the chipboard sketch on your piece of glass, cut out all the 3 walls of your set.
8. Measure and cut out two pieces for the floor and ceiling.
9. Carefully apply UHU glue to all the edges of the cut-out chipboard pieces.
10. Carefully join the pieces to form the room, and wait about 30 minutes for the set to dry.
11. Mix and use your poster colour to paint the set as desired.
12. Draw small chairs, table and bed to the scale of your room on pieces of the chipboard paper.
13. Cut the drawn chairs, table and bed with your craft knife.
14. Apply UHU glue to all the edges of the cut out table, chairs and bed.
15. Stick them accordingly and wait for them to dry.
16. Mix and use the poster colour to paint the chairs, table and bed and wait to dry.
17. Apply UHU glue to the bottom legs of the table, chairs and bed and stick them in place in the set you have constructed.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Color Meaning". *Color Wheel Pro - See Color Theory in Action.* http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction*. <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.

MODULE 2 TYPES AND USES OF SPECIAL EFFECTS.

UNIT 1 WHAT ARE SPECIAL EFFECTS IN FILM PRODUCTION?

Unit Structure

1.0 Introduction

This unit introduces you to the special effects, its meaning and uses in the film industry. You will also be introduces to some of the materials, technologies and techniques of special effect in film production. To make the most of this unit, it is recommended that you refer to previous units as you read and work ahead.

2.0 Objectives

At the end of this unit, you should be able to do the following:

- Understand what special effect is.
- Understand how special effects are used in film production.
- Understand the advantages of using special effects in filmmaking.

3.0 Main Content

3.1 Special Effect in Film Production

Special effect in film is often abbreviated as SFX or FX. The term refers to visual illusions used in the theatre, film, television, video game and other simulator industries to simulate imagined events in a story. In

essence, special effects are artificial visual or mechanical effects introduced into a film or TV production. Special camera lenses were used to create the earliest special effects by projecting moving backgrounds behind actors. The development of the optical printer brought greater flexibility by making it possible to replace part of an image and combine separate pieces of film. This allowed effects such as characters flying through the air in films. Special effects are also created mechanically on the set using devices such as electronics, explosives, puppets, chemicals and miniature models to simulate epic spectacular actions in scenes.

Software now enable designers to create computer-generated imagery (CGIs) to achieve increasingly elaborate and realistic visual effects. While each movie studio may have its own special effects department, private companies like George Lucas's Industrial Light and Magic, specialise on revolutionary SFX for movie producers. Some of these CGIs are seen in animated productions and science fiction films, starting with Star Wars (1977). Since the 1990s, computer-generated imagery (CGI) has become more dominant in special effects technologies. CGI provides producers with greater control, allowing many effects to be more safely and convincingly achieved. As technologies of SFX improve, CGI costs get lower and supersede many optical and mechanical effects techniques.

3.2 The Use of Special Effects in Film Production

Special effects are traditionally divided into mechanical effects and optical effects. With the emergence of digital film-making there is now a growing distinction between special effects and visual effects. Visual effects now refer to digital post-production while "special effects" refer to mechanical and optical effects. Mechanical effects (also called practical or physical effects) are normally achieved during the live-action shooting on the set. This includes the use of mechanized props, scenery, scale models, animatronics, pyrotechnics and atmospheric effects that create physical wind, rain, fire, fog, snow, bubbles, clouds, remote controlling objects, explosions, etc.

Mechanical effects encompass the use of mechanical engineering to a large extent, such as flipping and hauling of cars, which are done with specialized rigs and blood spill effects in shooting scene, done through rigged blood squibs. Teams of engineers or freelance film companies provide special effect services to movie producers. As the action is being shot on camera against a green screen, crew members, including camera men, stunt artists or doubles, directors and engineers all collaborate simultaneously to get the best angles and shots that make the most pleasing spectacle. Postproduction editing is done before the film is released. Mechanical effects such as prosthetic makeup are often

incorporated into set design and makeup to make an alien out of an actor, for instance.

On the other hand, optical effects (called photographic effects) are techniques in which images or film frames are created photographically, either "in-camera" or in post-production using optical printers. An optical effect can be used to put actors or sets against a different, unconnected background.

3.3 Green Screen

Formally known as "chromakey ", the green screen is an integral aspect of the special effects in filmmaking, allowing producers to superimpose their subjects onto any background of their choice. Chromakeying singles out and makes a particular colour in an electronic image transparent, allowing another image to show through. It is the technique used to make superheroes fly in the sky, or make meteorologists speak in front of animated maps. The meteorologist stands in front of a green screen, and TV producers use the chromakey special effects technique to isolate and remove the particular shade of green with advanced editing software, allowing audiences to see the animated weather map.

In the same way, the actor portraying a superhero is filmed in front of a green screen lying on his stomach with a huge fan blowing his hair and cape. Chromakeying is then used to remove and replace the green background with the image of a moving skyline or skyscrapers. This produces the special effect of a superhero flying in the air. In essence, Special effects embrace a wide array of photographic, mechanical, pyrotechnic, and model-making skills. Use the following links to learn more about chromakey and special effects generally:

https://www.wonderopolis.org/wonder/how-does-a-green-screen-work
https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492
https://www.britannica.com/art/stagecraft/Control-consoles#ref466794

3.4 Blood Squib in Special Effect

A squib is a miniature explosive device used in a wide range of applications from special effects to the military. Resembling tiny stick of dynamite with considerably less explosive power, squibs consist of electrical and chemical components that generate mechanical force or provide pyrotechnic effects for both film and live theater productions. The squib's first documented use to simulate bullet impacts in film the Polish film *Pokolenie* (1955) by Andrzej Wajda. For the first time, in that film, audiences saw a realistic on-camera bullet impact with blood spatter on

an actor. Kazimierz Kutz, the creator of the effect, employed dynamite and a condom filled with fake blood.

As you can guess, using explosives to actuate a blood squib is very dangerous. The industry has since moved away from explosives to air-powered squibs. Whereas there are no explosives in these air powered versions, they are still professionally called “squibs”. The air squib is very much safer because the blood is actuated by air, rather than the power of real explosives. Contemporary blood squibs are easy to use and safely powered by air, to spray fake blood and make the scene look more real.. They allow you to create the illusion of gunshot impacts and can used on stage, TV and film productions. As you can see in the picture bellow, they are portable and you can hide them in a performer’s costume and use them to achieve the illusion of blood in a gunshot scene. We shall discuss the mechanism of the air squib in details in the next Unit. Use the following links bellow the picture to learn more about blood squibs:

https://squibfx.com
http://www.airsquib.com/The-Shop
https://www.geelongfireworks.com.au/Air-Squib.php

4.0 Self-Assessment Exercise

- What are special effects in film production?
- In what ways do special effects help in filmmaking?
- List 3 different special effects that you know.

5.0 Conclusion

Special effects are now integral components of filmmaking. While some are mechanically produced, others are optically produced. They add amazing and more compelling spectacle to performance. Green screens enable producers to isolate certain parts of the image. The effect of chromakey enables some aspects of the image to be removed and another sequence juxtaposed, such as scenes in which people are flying. Today, many effects are done with computer generated imagery (CGI). Blood squibs are portable devices, hidden in the actor’s costume to enable filmmakers to create the illusion of gunshot impacts in film. They use air to spray fake blood to make the scene look more real.

6.0 Summary

In this unit, we have been able to understand what special effects (or SFX) are and how they are used in film productions. We have also learnt about how special effects help in creating more spectacles for the audience. We learnt what a green screen is, and how chromakeying helps to create juxtapositions in filmmaking. We learnt why explosives were discontinued and replaced by air squibs in creation of gunshot wounds in film.

7.0 Tutor-Marked Assignment

Select any Hollywood action film of your choice and list all the special effects that you think were used in the movie.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own*. <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction*. <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum)*. <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.

How Does a Green Screen Work? <https://www.wonderopolis.org/wonder/how-does-a-green-screen-work >.

Encyclopaedia Britannica (2020). *Special Effects*. <https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492>.

UNIT 2 MAKING AND USING YOUR OWN BLOOD SQUIB FOR SPECIAL EFFECTS

Unit Structure

1.0 Introduction

This unit introduces you to how a simple blood squib can be made, and also gives you an idea about how blood squibs are rigged in productions. Your work in this unit will be practical, in which you learn to use the prop gun you made in Module 2, Unit 2, and the blood squib and costume you made in Module 3, Unit 1 to act a shooting scene. For this drama, you will make your own fake blood and be the gunshot victim. To make the most of this unit, it is recommended that you refer to previous units as you read and work ahead.

2.0 Objectives

At the end of this unit, you should be able to do the following:

- Know how to make a simple blood squib for performance.
- Understand how a basic blood squib works.
- Use the prop gun you made in Module 2, Unit 2, including the blood squib and costume you made in Module 3 Unit 1 to achieve a gunshot special effect.

3.0 Main Content

3.1 Materials Needed

As noted earlier, this course has a practical component that must be fulfilled to enable you make the most of it. Therefore, you have to buy some basic design materials that will help you realise the objectives of this course, and do your assignments. The following Table indicates the materials you need to create your own fake blood and rig your squib for action.

Material	Quantity	Uses
Small Enema	1	For storing and actuating fake blood
Transparent ¼ inch hose	1	For dispensing fake blood from Enema
Roll of Masking tape	1	For taping
Medical syringe and needle	1	For transferring fake blood to the Enema
Disused white shirt	1	For the shooting scene
Disposable cup	1	To contain the mixed fake blood
Medium sized balloons	15	For simulating gunshot sound

Fig. 1: An illustration of the extra materials needed for this unit.

3.2 Making your Own Blood Squib

In this section, you will use your materials to produce your own blood squib. Take your time and carefully follow the steps bellow. Do not hurry through it. You need your full attention to achieve the desired results.

1. Lay all your materials on a work table and plug the hot glue gun to heat up.
2. After about 5 minutes, use the hot glue to completely seal one end of the ¼ inch hose.
3. Mark two lines 1cm bellow the hot glue seal you just made in the ¼ inch hose.
4. The two lines you marked must be no more than ½cm apart.
5. On the first line, use your craft knife to cut (straight down) halfway through the ¼ inch hose.
6. On the second line, use the craft knife to cut (slanted) to meet the end of the first cut.
7. You have now cut a section out of the ¼ inch hose.
8. Insert the nozzle of your enema into the opposite end of the ¼ inch hose.
9. Ensure that the nozzle is tight in the hose.
10. Your simple air squib is ready to use.

3.3 Using your Own Blood Squib

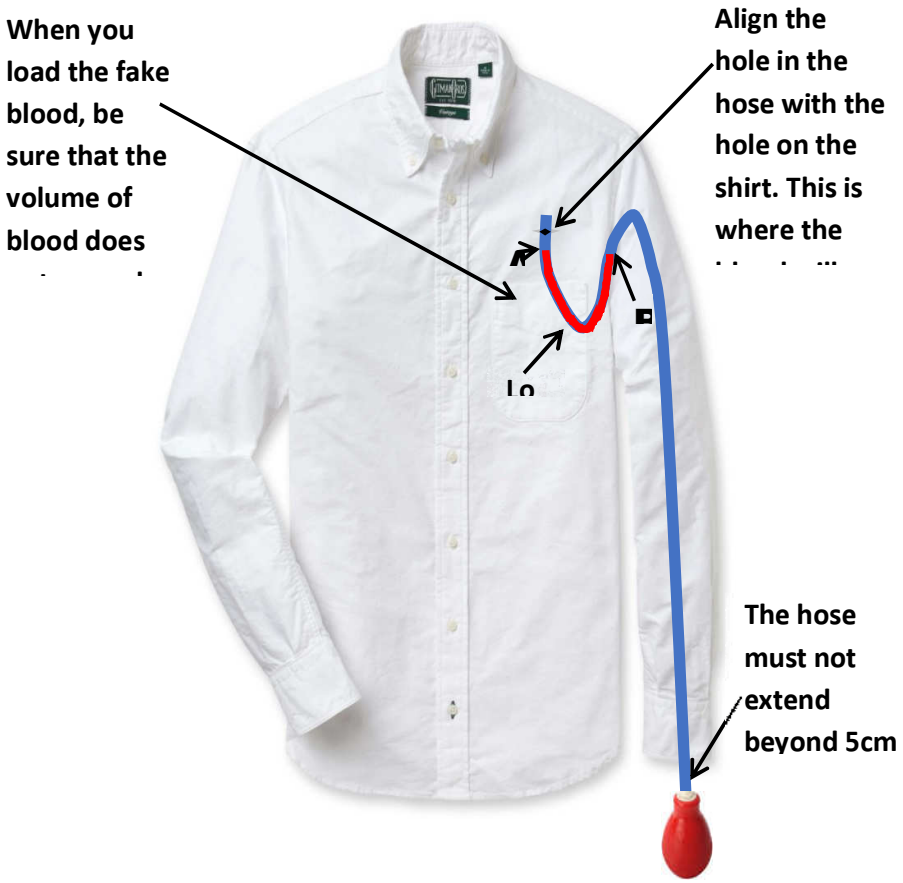
Now that you have made your own simple blood squib, it is time to create your own special effects using the prop gun and blood squib you have made for yourself. This section requires your total concentration and you will need to repeat the actions several times to master the use of the squib. In the first instance, you will use plain water in the squib to do a series of practice sequences, until you have sufficiently mastered its use. Then you can load and execute your special effect with the fake blood. The reason why all your practice sequences must be with plain water is that the fake blood will stain the shirt and you will have to use several shirts.

However, if you practiced with plain water (which would not stain the shirt), you would be able to use the same shirt again for the actual special effect action. Also, you will need a second person in this exercise to help simulate the gunshots, using the balloons.

3.4 Steps to Creating Gunshot Special Effect with your Blood Squib

1. Get someone to assist you in this exercise.
2. Inflate 10 of your medium size balloons and tie each to ensure air does not escape.
3. Place the inflated balloons and the needle from the syringe in the same place.

4. Pass the sealed end of the ¼ inch hose through the left hand of your long sleeved shirt.
5. Pull the hose downwards into the shirt and make a loop, taking the hose up again, to align the holes of both the hose and shirt, as indicated in the diagram bellow.
6. Ensure to make the loop, as indicated in the illustration, as that is where the blood will be stored.
7. Mark points “A” and “B” on the loop, as this is only part of the hose that will hold the fake blood.
8. Cut 10 pieces of masking tape measuring 10cm in length. Use these to hold the hose to the inside of the shirt at intervals along its length. This secures the hose inside the shirt.
9. Ensure that the enema hangs just about five centimetres below the sleeve. If it is longer, please cut the hose and reinsert the enema. You are now ready to test and master the squib.



3.5 Mastering Your Squib

10. Wear the shirt without buttoning it, making sure the enema is within grasp of your left hand.
11. Fill the syringe with plain water and inject the water into the hose, from the hole above the loop.

12. Do not let the water exceed points “A” and “B” on the loop.
13. Button the shirt, taking care to not disturb the enema, to prevent accidental spills.
14. Stand across the table to your assistant, making sure the inflated balloons are on the table.
15. Let the assistant point your prop gun at you with one hand, while holding the needle in the other hand.
16. With the gun pointed at your chest, the assistant needs to burst one balloon at the same time the gun’s trigger is pressed. The sound of the burst balloon simulates the sound of gunshot.
17. Now, you hold the enema. Squeeze hard on the enema to synchronise the sound of burst balloon with the ejection of water from the hose, through your shirt.
18. Repeat this process several times, until you and your assistant have mastered the syncing of trigger, burst balloon, enema squeezing and water ejection. Once master with water, then it is time to put fake blood in the squib.
19. Scoop a generous amount of red poster colour into the small cup.
20. Add and stir in enough water to create a blood consistency.
21. Using the syringe, load the fake blood into the squib as you did with the water. Take care not to stain the shirt.
22. Execute the shooting scene with the fake blood.
23. Have a second assistant use a cell phone camera to video the final result for sending as your tutor-marked assignment.
24. Once satisfied, pack your blood squib and prop gun neatly into a cellophane bag and keep it in a safe place.
25. Copy and paste this link in a window and see a YouTube video of blood squib making: https://youtu.be/5dgUVLcDLY4.

4.0 Self-Assessment Exercise

- What are special effects in film production?
- In what ways do special effects help in filmmaking?
- List 3 different special effects that you know.

5.0 Conclusion

Special effects are now integral components of filmmaking. While some are mechanically produced, others are optically produced. They add amazing and more compelling spectacle to performance. Green screens enable producers to isolate certain parts of the image. The effect of chromakey enables some aspects of the image to be removed and another sequence juxtaposed, such as scenes in which people are flying. Today, many effects are done with computer generated imagery (CGI). Blood squibs are portable devices, hidden in the actor’s costume to enable

filmmakers to create the illusion of gunshot impacts in film. They use air to spray fake blood to make the scene look more real.

6.0 Summary

In this unit, you have been able to understand what special effects (or SFX) are and how they are used in film productions. You have also learnt about how special effects help in creating more spectacles for the audience. You learnt what a green screen is, and how chromakeying helps to create juxtapositions in filmmaking. You learnt why explosives were discontinued and replaced by air squibs in creation of gunshot wounds in film. You also learnt how to make and use your own simple blood squib for a shooting scene.

7.0 Tutor-Marked Assignment

Submit a shot video taken with a cell phone camera, of the gunshot scene with your blood squib.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own*. <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

Encyclopaedia Britannica (2020). *Special Effects*. <https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492>.

How Does a Green Screen Work? <https://www.wonderopolis.org/wonder/how-does-a-green-screen-work

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press.

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction*. <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum)*. <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.

UNIT 3 INTRODUCTION TO ANIMATION

Unit Structure

1.0: Introduction

This unit introduces you to the basics of animation and the techniques and technologies of how it is achieved. To make the most of this unit, it is recommended that you read broadly and refer to previous units as you progress.

2.0: Objectives

At the end of this unit, you should be able to do the following:

- Understand what animation is.
- Know the types of animation.
- Understand how animation is done.

3.0 Main Content

3.1 What is Animation?

Animation is a film production method in which pictures are manipulated to appear as moving images. Artists who specialize in creating animations are called animators. Several individuals have influenced the development of animation as a filmmaking technique. Partly animated on a chalkboard and partly with cut-outs, Stuart Blackton's *Humorous Phases of Funny Faces* (1906) is usually regarded as the first animated standard film. Traditional hand=drawn animation debuted with Émile Cohl's *Fantasmagorie* (1908), while Ladislas Starevich created puppet animations in 1910. Winsor McCay made *Gertie the Dinosaur* (1914), a drawn animation that featured a scene with a live-action recording of him interacting with Gertie in a drawn landscape. As animated cartoons became an industry in that decade, John Randolph Bray with animator Earl Hurd, patented the cel animation process that gained prominence throughout the century. The Argentine director, Quirino Cristiani made the first feature-length film *El Apóstol* (1917), which became a critical

and commercial success, followed by *Cristiani's Sin dejar rastros* (1918), which was confiscated by the government a day after its premiere.

Animated film with synchronised sound debuted with Walt Disney's *Steamboat Willie* (1928), featuring Mickey Mouse. Disney's studio remained at the forefront of the animation industry and introduced the innovation of full colour in *Flowers and Trees* (1932), representing the golden age of American animation that lasted until the 1960s.

In traditional animation, images are created by hand on transparent celluloid sheets to be photographed and put on film. Today, most animations are created with computer-generated imagery (CGI). Computer animations can either be very detailed 3D animation or 2D for stylistic reasons or renderings. Animation is achieved by a rapid succession of sequential images that differ minimally from each other. The illusion of continuous movement is achieved as the images flip by. Besides short films, feature films, animated GIF's and other media dedicated to the display of moving images, video games rely heavily on animation. As animation became globally successful, it extended beyond cinema to TV and commercials too. Many families are now entertained with animated series and features on TV, while animated series such as MGM Studio's*Tom and Jerry* (from1940s) and Disney Picture's *Frozen* (1, 2013 and 2, 2019) became very popular with audiences around the world.

3.2 The Challenges of Producing Animated Films

Both animated and live-action feature-length films are labour intensive and also have high production costs. But while a director can easily do another take of a scene, it will cost several weeks of man hours to make a team of dozens of animator redo an animated sequence. To overcome this challenge, animation studios have maintained the practice of storyboarding since the 1930s. In storyboarding, storyboard artists develop every single scene through storyboards, which is given to animator only when the production team is satisfied. Live-action films are also storyboarded. But they also allow real-time improvisations that will be too costly in animated features.

Another problem unique to animation is that it takes a lot of cost and effort to maintain a film's visual consistency throughout, since animators are artists with individual styles. It is simply not easy for about 50-70 animators to work together on one feature and maintain one artistic style. They all have to subordinate their own styles to the one required by the production team consistently, from start to finish. Production studios solve this problem by a separate group of artists develop an overall characterisation to show how each character should look like with

different facial expressions, posed in different positions, and viewed from different angles.

3.3 Some Techniques of Animation

(i) **Traditional Animation**

Also called cel animation or hand-drawn animation, traditional animation was the process used for most animated films of the 20th century. Each individual frame of a traditionally animated film is a photograph of a drawing, first made on paper, with each differing slightly from the other to create the illusion of movement. In this technique, the animators' drawings are traced or photocopied onto transparent acetate sheets (called cels), which are then painted, before completed character cels are photographed individually against a painted background, onto motion picture film.

(ii) **Full animation**

Full animation refers to the process of producing high-quality and smooth-running traditionally animated films that regularly use detailed drawings and plausible movement. They are animated at 24 frames per second, with animation combined on ones and twos. This means that the drawings are held for one frame out of 24 or two frames out of 24. The stylistic approach in fully animated films can be realistic like those by Disney Studio (*The Little Mermaid*, *Aladdin*, *The Lion King*) or "cartoonish" like the Warner Bros. animation studio.

(iii) **Limited animation**

Limited animation uses less details, more stylised drawings and uses fewer drawings per second, which gives the film a "skippy" movement absent in full animated features. Since it uses less images and stylised drawings, it is cheaper to produce than full animations. Examples are the animations made by Hannah-Barbera and other TV animation studios, including web cartoons.

(iv) **Rotoscoping**

In rotoscoping, patented by Max Fleischer in 1917, animators trace live-action movement, frame by frame or copy the source film directly from actors' outlines into animated drawings.

(v) **Live-action/Animation**

Live-action/animation is a technique that combines hand-drawn characters with live action shots, such as *Who Framed Roger Rabbit* (US, 1988).

(vi) **Stop Motion Animation**

In stop motion animation, real world objects are physically manipulated and photographed one frame at a time, to create the illusion of movement. There are many variants of stop motion animation, named after the medium used (see the table below). While computer software is widely available for creating this type of animation, traditional stop motion animation is usually less expensive but more time-consuming to produce than current computer generated animation.

Variant of Stop Motion	**Principle**	**Example**
Puppet animation	puppet figures interacting in a constructed environment	Corpse Bride (US, 2005)
Puppetoon	using different versions of a puppet for different frames, rather than manipulating one existing puppet	Tom Thumb (1958)
Clay animation, or Plasticine animation	figures made of clay or a similar malleable material to create stop-motion animation	The Trap Door (UK, 1984)
Strata-cut animation	taking a frame shots of long bread-like "loaf" of clay sliced into thin sheets	Peter Gabriel's music video for "Big Time" (1986)

Cutout animation	moving two-dimensional pieces of material	episodes of *South Park* (US, 1997)
Silhouette animation	backlit silhouette characters	*Princes et princesses* (France, 2000)

(vii) **Computer Animation**
In computer animation, the feature is created digitally on a computer.2D computer animations techniques tend to focus on image manipulation while 3D techniques often build virtual worlds in which the action is enacted, such as *Ice Age* (2002).

4.0 Self-Assessment Exercise

- What is an animated film?
- List 5 animation techniques.
- List 3 differences between animated and live action movies.

5.0 Conclusion

Animation has been an integral part of filmmaking since the start of the 20th Century. Using one of several techniques, animation creates worlds and actions that live action filmmaking cannot achieve. Because of its unique and creative feel, animation has an appeal that transcends class, race, culture and age. While there are different methods of doing animation, computer generated Imagery has taken prominence over the contemporary animated film industry.

6.0 Summary

In this unit, we have been able to understand what animation is, and how it is used in filmmaking. We have also learnt about several techniques for making animations. We also have learnt that animations are sometimes more expensive than live action films, when it comes to reshooting some scenes. We have learnt that Computer Generated Imagery has taken prominence in the animation industry.

7.0 Tutor-Marked Assignment

In a tabulated form, list all the animation techniques you know, and list 3 films each that were made using those techniques. Be sure to provide the director's name, the production company and year of production.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Anawalt, Patricia R (2007). *The World Wide History of Dress.* Thames and Hudson.

Barrier, J. Michael (2003). *Hollywood Cartoons: American Animation in Its Golden Age*. New York: Oxford University Press.

Beckman, Karen Redrobe (2016). *Animating Film Theory*. Durham: Duke University Press.

Blair, Preston (2013). *Animation 1: Learn to Animate Cartoons Step by Step*. Irvine, CA: Walter Foster Publishing.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own*. <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Cole, Holly, and Kristin Burke (2005). *Costuming for Film: The Art and the Craft*. Silman-James Press.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

Corson, Richard. Fashions in Makeup: From Ancient to Modern Times. London: Peter Owen Ltd., 1972.

Delamar, Penny. The Complete Make-up Artist: Working in Film, Television, and Theater. 2nd edition. Evanston, Ill.: Northwestern University Press, 2002.

Encyclopaedia Britannica (2020). *Special Effects*. <https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492>.

How Does a Green Screen Work? <https://www.wonderopolis.org/wonder/how-does-a-green-screen-work >.

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

Kehoe, Vincent. The Technique of the Professional Make-up Artist. New York: Focal Press, 1995.

La Motte, Richard (2010). *Costume Design 101: The Art and Business of Costume Design for Film and Television*. Michael Wiese Productions, Second Edition.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction.* <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum).* <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

Stage Design. *Encyclopaedia Britannica 2003*. Ultimate Reference Suite CD-ROM. Chicago: Encyclopædia Britannica, Inc.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.

UNIT 4 UNDERSTANDING GRAPHIC DESIGN

Unit Structure

1.0 Introduction

This unit introduces you to the basics of graphic design, including the techniques and technologies for creating good graphic materials. To make the most of this unit, it is recommended that you read broadly and refer to previous units as you progress.

2.0 Objectives

At the end of this unit, you should be able to do the following:

- Understand what graphic design is.
- Know several types of graphic products used in film productions.
- Know some of the materials for manual graphic design
- Know some of the materials for computer graphic design.

3.0 Main Content

3.1 What is Graphic Design?

Graphic design is the process of using typography, photography, illustration and space in visual communication and problem-solving. The field is considered a subset of visual communication and communication design, but termed “graphic design”. Virtually every profession requires graphics in some way. Even the seemingly unlikely professions like medicine, astronomy, nuclear physics and the likes are not without graphic design. For, they have data, ideas and materials that need to be visually presented and communicated, such as charts, diagrams, photographic and other images taken electronically. Graphic design skills, software and equipment of sorts are required for creating and presenting information in readable, informative and understandable ways. Thus, it is not only in communication studies that graphic design functions.

Skilled people who create graphic designs are called graphic designers. Their job is to create visual concepts, using manual or computer software means, to communicate ideas that captivate, inform and inspire audiences. Very often, graphic designers are middle men, working for a client who wants certain information to reach a target audience. It is then the job of the graphic designer to take all the client's ideas (creative brief) and put them together in a pleasing and communicative arrangement, using typography, illustration, photography and space.

The arrangement of these four elements within any visual media is called layout, and it can be achieved manually or with the use of computers and applicable software. Both the manual and computer methods of graphic design involve the same processes and visual design principles. You have learnt about "Elements of Design" and "Understanding Colours" in Module one. All that you learnt in that module apply to both the manual and computer graphic design processes. The difference is that the manual process uses tangible art and design materials, while computer graphics is based on software versions of the same tools, for achieving virtual graphic creations. The virtual designs made in the computer are called soft copies, because they are not tangible, but virtual and intangible products. To make them tangible, soft copies of graphic designs are printed from a desktop printer. When printed, the designs are called hard copies because they are now actual and tangible products. The tools needed for manual graphics design are the same ones you used earlier, as indicated in the image bellow:

In contrast with the tools used for manual graphic design above, the tools used for virtual graphic design are in the computer. Therefore, it is important to know the computer, its major aspects and the functions that you can derive from their use.

3.2 The Computer as Tool for Graphic Design

The computer is called a system, because it is not just one machine. It is a combination of machines that help us achieve our needs. Each machine in the computer "system" is called a "device". The computer system for use in creating graphic designs is made up of the following components:

(i) **Input Devices**

Input devices are machines that enable you to put your data into the computer. As a graphic designer, your data is visual because you are making designs that are to be visualised in communication. The input devices you can use for graphic design include digital cameras, scanners, cell phones and keyboards. The camera lets you take and transfer photographs to a computer; the scanner lets you scan a photograph to the computer; your cell phone can also take pictures for transferring the computer; the keyboard lets type information into the computer; while the mouse lets you move the cursor to select different items by pressing (called clicking) the mouse buttons.

Digital Scanner Cell

Keyboard Mouse

(ii) **Processing Device**

The computer has an internal device called the central processing unit (CPU), which is what processes all the information you put in. As a graphic designer, your data include texts and images, which you will use to compose your creations. The visual compositions you will make involve the processing of data. All data is processed in the CPU of computers. And the CPU is found inside of the computer, whether you are using a laptop or a desktop computer.

(iii) **Output Device**

After putting your data into the computer and designing your graphic creation, the product is still a soft copy and a virtual intangible thing. To make it tangible, you have to print it out on a paper or other applicable surface. As a graphic designer, you may print your design with a desktop printer such as a LaserJet or inkjet printer, or print it with a large format machine on flex material or self-adhesive vinyl (SAV), depending on what you wish. Small projects are printed on paper, while larger ones are printed on flex or SAV. But if you wish to have a design that is going to be stuck on a smooth surface, you should print on SAV because it has its own adhesive and you will not need to apply gum. Whichever type of printer you choose to use, you always need to make your designs in the colours you want before printing.

Laserjet printer

Inkjet printer

Large format printer

3.3 The Graphic Design Layout

As you learnt earlier, the arrangement of text, illustrations, photography and space is called “layout”. The way you will lay out your design will depend largely on what the design is to be used for. As a graphic designer working in a film production company, the designs you will be making will include those in the Table below:

Single Page Designs	Multiple Page Designs
Fliers	Program of event
Posters	Catalogues
Signs	Information booklet
Information sheets	Bulletins

Looking at the Table above, you will see that there are single page and multi-page designs. Single page designs are those that have only a page of information, such as fliers and posters. Booklets and program of events that have several pages are called multi-page designs. Whichever project

you require to produce, the principles of design are the same and graphic design layout is done page-by-page. For multi-page designs like books and brochures, however, there must be consistency in all the pages. Consistency means that all the pages follow a similar visual arrangement. To understand this, pick any book around you and flip through the pages. You will see that all the pages have a layout that is similar and consistent.

Designing a Simple Flier

A poster. This is an example of a single page design. See how

A book. This is an example of a multi-page design. See how the designer arranged the photographs, typography and space to achieve

3.4 Arranging Typography, Images and Space in Graphic Design

Graphic layout design is much like we layout and arrange furniture and our things in rooms. Imagine that you hire a van to help you move your things to another apartment you recently found. When you get to this new house, you do not just throw your properties into the room. You plan and arrange the things properly, taking care to place items where they best fit, for your use. Also, you ensure that there is space for you to move around the apartment without having to climb on stuff. Graphic layout is exactly like that. You arrange all the elements in a very pleasing way leaving enough space around each element, to make them appealing and meaningful to your intended audience. How you place each element in your layout is called composition. To learn more about graphic design layout, use the following links to guide your understanding:

https://opentextbc.ca/graphicdesign/chapter/3-3-compositional-principles-strategies-for-arranging-things-better/
https://www.script-tutorials.com/basics-of-composition-in-graphic-design/
https://99designs.com/blog/tips/design-composition-and-layout/
https://www.canva.com/learn/visual-design-composition/

4.0 Self-Assessment Exercise

- What do you understand by term, graphic design?
- List 5 materials for manual graphic design.
- List 5materials for doing computer graphic design.

5.0 Conclusion

Graphic design is the arrangement of typography, illustration, photographs and space in a pleasing way that will attract and communicate effectively to intended audiences. Graphic design may be manually achieved or created with the use of a computer. Whichever method is used, there are several graphic design products that are used in the context of filmmaking, such as fliers, program of event, posters, catalogues, signs, information booklet, information sheets, bulletins, etc. The way you arrange elements in a graphic design is called layout, and the process of laying out your design is called composition.

6.0 Summary

In this unit, we have been able to understand what graphic design is. We also learnt that there are both manual and computer methods of graphic design, and we learnt about the materials and tools for doing them. We learnt about several types of graphic designs that are used in the context of film production.

7.0 Tutor-Marked Assignment

Explain how the following can be used in a film production:

- Fliers.
- Posters.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Anawalt, Patricia R (2007). *The World Wide History of Dress*. Thames and Hudson.

Barrier, J. Michael (2003). *Hollywood Cartoons: American Animation in Its Golden Age*. New York: Oxford University Press.

Beckman, Karen Redrobe (2016). *Animating Film Theory*. Durham: Duke University Press.

Blair, Preston (2013). *Animation 1: Learn to Animate Cartoons Step by Step*. Irvine, CA: Walter Foster Publishing.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own*. <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Cole, Holly, and Kristin Burke (2005). *Costuming for Film: The Art and the Craft*. Silman-James Press.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

Corson, Richard. Fashions in Makeup: From Ancient to Modern Times. London: Peter Owen Ltd., 1972.

Cross Nigel (2007). Designerly ways of knowing. Basel: Birkhauser.

Delamar, Penny. The Complete Make-up Artist: Working in Film, Television, and Theater. 2nd edition. Evanston, Ill.: Northwestern University Press, 2002.

Encyclopaedia Britannica (2020). *Special Effects*. <https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492>.

How Does a Green Screen Work? <https://www.wonderopolis.org/wonder/how-does-a-green-screen-work >.

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

Jordan, Patrick W. (2000) Designing Pleasurable Products. CRC Press Taylor and Francis.

Kehoe, Vincent. The Technique of the Professional Make-up Artist. New York: Focal Press, 1995.

La Motte, Richard (2010). *Costume Design 101: The Art and Business of Costume Design for Film and Television*. Michael Wiese Productions, Second Edition.

Lawson, Bryan (2006). How Designers Think: The design process demystified. Oxford: Architectural Press.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction*. <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum)*. <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

Stage Design. *Encyclopaedia Britannica 2003*. Ultimate Reference Suite CD-ROM. Chicago: Encyclopædia Britannica, Inc.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.

MODULE 3 INTRODUCTION TO COSTUME AND MAKEUP.

UNIT 1 UNDERSTANDING COSTUME IN PRODUCTIONS

Unit Structure

1.0: Introduction

This unit introduces you to costume, its meaning and uses in film production. To make the most of this unit, it is recommended that you pay attention to details, read widely and participate in the self-assessment and tutor-marked exercise.

2.0: Objectives

At the end of this unit, you should be able to do the following:

- Understand what costume is.
- Understand how costumes are used in film production.
- Understand how costumes can be selected in filmmaking.

3.0 Main Content

3.1 Costumes in Filmmaking

In film production, any set of clothes worn in order to play a character’s role is called costume. Theatrical costumes are neither historical nor contemporary; they elaborate a style and convention of their own. Their success in any production depends in large measure on the designer's ability to understand and interpret the director's production concept. The spirit of the production and the director's aims may call for special emphasis on certain characteristics in clothing. Designs may be copies of period costumes or may attempt only to evoke a period.

Museums and other repositories of the decorative and literary arts are rich sources of inspiration. Since the subject of theatrical costume design is so closely related to the art and history of dress, you need also read books and other materials on “dresses” and “dressing”, to get a comprehensive understanding.

3.2 The Costume Designer

In film production, a costume designer is the person in charge of designing the clothing elements worn by actors. This is true in both a film or stage production. Theatrical costumes were an innovation of Thespis, in Greece in the 6th century BC, and theatrical costumes are still called “the robes of Thespis.” While costume designers possess a similar skill to that of traditional fashion designers, they need also satisfy the unique demands of designing clothes for parameters defined by scripts, stories, characterisation and directorial concepts of each film. Even if they share skills, tools and equipment for actualising apparels, the jobs of the fashion designer and a costume designer are not the same. Since they are used in performance settings, costumes must adhere to the specific requirements of the narrative and also be durable enough to withstand the rigours arising from the actor’s role in the film.

Additionally, costumes are designed and made to complement other visual aspects of the film’s scenic ambiences such as lighting, colour, mood, etc. Thus, a costume designer is also tasked with working in concert with other design professionals in mediums like lighting and scenic design to create a cohesive aesthetic for the production as a whole. Whereas fashion designers are routinely tasked with designing contemporary wears, costume designers create apparels for specific performance contexts.

3.3 The Role of a Costume Designer

Film production is a collaborative enterprise in which several artists and technical persons work together to achieve the film’s objectives. In this sense, the script is the central determiner of what everyone creates or does on set. Typically, costume designers start their process by doing a close reading of the script and making careful analysis of the plot, tone, and period of the story being told, including the special attributes that the director may require in particular scenes.

After preliminary conversations with the writer, director and other members of the production team, the costume designer then researches the fashion history and trends of the relevant cultures, time periods and location. Through this process, costume designers will compile a set of

visual references for specific fabrics, patterns, and clothing styles that they wish to draw from, in the creation of their own designs for the film. Research and script analysis are very critical to the job because a costume designer must ensure that each outfit effectively communicates the age, social status and dramatic function of each character, bearing in mind that each costume must synergise with other visual aspects in the scene(s) in which the actor will wear it.

To achieve this throughout the production, all designed costumes are compiled into what's called a costume plot, which enables the designer to document and track changes in attire for each character chronologically through the story. Costume plots are made up of hand drawn sketches, digital renderings from the pc or other handhelds, and photographs too.

As with all designers in film production, the costume designer must show and discuss design ideas and sketches with the director and production team, to get inputs. As soon as the director and production team's go-ahead is given, the designer gets to work putting the costumes together. While costumes may be designed and made from scratch, they are sometimes cloths purchased from retailers and altered to fit the script and cast.

3.4 Skills Required of a Costume Designer

To be a costume designer, certain skills and capabilities are needed, such as the following:

(i) *Passion for design*

A costume designer must have passion for design, and a deep knowledge and appreciation of clothing and fashion across history and locale. The designer must spend a lot of time researching and compiling reference materials before commencing the set of designs for each film project. This scope of work requires passion to be realisable.

(ii) *Creative Ability*

A costume designer needs also possess the ability to make sketches and drawings using freehand. The templates and first visuals that the designer produces, during and after research, are always hand drawn sketches. A sketching ability is then an essential skill for costume designers.

(ii) *Software Capabilities*

While freehand sketching skills are inalienable to the job of a costume designer, you need to keep in mind that we live in a digital era where

software enhances professional competences. Therefore, costume designers today must incorporate computer aided design (CAD) software into their process. Designs and mock-ups are now produced digitally, and a costume designer needs to be able to use these technologies effectively.

(iv) *Basic Sewing knowledge*

While full proficiency in sewing or tailoring is not an absolute requirement of costume designers, they must however have basic knowledge of the process through which apparels are produced. Remember that the costume designer will be working closely with sewing and alteration professionals. This means that the costume designer must have the basic sewing knowledge to be able to communicate work effectively with costume-making technicians.

3.5 Designing Costumes for Film Production

In designing costumes for a production, it is essential from the start for the costume designer to coordinate costume sketches with the scenic and lighting designers' schemes. The elements of design you learnt earlier, such as line, shape, and colour of the entire company's costumes must be viewed in relation to the set and the production's lighting plot. As not above, rough preliminary sketches are made and discussed, revised, and redrawn to the specifics determined by the director’s interpretation. These sketches are presented at several production meetings before the final sketches are approved by the director.

Once approval of the sketch is given, the costume designer can now make a list and search for fabrics that are appropriate to each costume on the list. Fabric buying can be time-consuming because each material of interest may be found in cities or even countries apart, and in shops where they have enormous collection of materials. Qualities of the fabric, such as texture, colour, thickness, stiffness, etc, must match the intended costume. These decisions are all part of what the costume designer deals with, in selecting fabrics. A sample each of the chosen fabric is then stapled to each sketched costume. The costume designer’s other considerations include caps, hats, wigs, shoes, jewelry, walking sticks and other items that complete a character’s costume.

At the end, approved designs, along with the stapled fabric samples, are given to costume makers for bids, before agreements and contracts are signed for costume production. When costumes are made and delivered, they must be tried on to ensure that there are no problems, before they are catalogued in the inventory and put in the wardrobe for use on the set.

4.0 Self-Assessment Exercise

- What are costumes in film production?
- In what ways do costumes help in filmmaking?
- List 4skills required by a costume designer.

5.0 Conclusion

Any set of clothes worn in order to play a character's role is called costume. Costumes are inalienable to filmmaking because they are what complete a character's role. In film production, a costume designer is the person in charge of designing the clothing elements worn by actors. Costumes are designed and made to complement other visual aspects of the film's scenic ambiences such as lighting, colour, mood, etc. Thus, a costume designer is also tasked with working in concert with other design professionals in mediums like lighting and scenic design to create a cohesive aesthetic for the production as a whole. A costume designer must have skills such as passion for design, creative abilities, software capabilities, and at least basic sewing knowledge.

6.0 Summary

In this unit, we have been able to understand what costume is and how they are used in film productions. We have also learnt about who a costume designer is. We learnt about how costumes help in film production, and also learnt the major skills a costume designer needs to have.

7.0 Tutor-Marked Assignment

Identify 2 characters in any film of your choice and use paper from your sketch book to make pencil sketches of 1 alternative costume for each of them.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Anawalt, Patricia R (2007). *The World Wide History of Dress.* Thames and Hudson.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own.* <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Cole, Holly, and Kristin Burke (2005). *Costuming for Film: The Art and the Craft*. Silman-James Press.

Color Meaning". *Color Wheel Pro - See Color Theory in Action.* http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

Encyclopaedia Britannica (2020). *Special Effects*. <https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492>.

How Does a Green Screen Work? <https://www.wonderopolis.org/wonder/how-does-a-green-screen-work >.

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

La Motte, Richard (2010). *Costume Design 101: The Art and Business of Costume Design for Film and Television*. Michael Wiese Productions, Second Edition.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author….* http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction.* <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum).* <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

UNIT 2 THE NATURE OF MAKEUP FOR PERFORMANCE

Unit Structure

1.0 Introduction

This unit introduces you to makeup, its meaning and uses in film production, including what special effect makeup is. In this unit, you will also learn about some of the skills that a makeup artist must have. To make the most of this unit, it is recommended that you pay attention to details, read recommended texts and engage in both the self-assessment and tutor-marked exercises.

2.0 Objectives

At the end of this unit, you should be able to do the following:

- Understand what makeup is.
- Understand how makeup is used in film production.
- Understand the skills required of a makeup artist.

3.0 Main Content

3.1 Makeup in Filmmaking

Makeup evolved thousands of years ago, when people discovered how to create striking personal adornments by applying a mixture of powdered pigments and wax or grease. In a reflection of this ancient tradition, theatrical makeup is still commonly called “grease-paint”. In ancient times, people used makeup for occasions like going to war, religious and other festivals. Contemporary makeup artists apply makeup to actors or others who are performing in the theatre, TV or film to change their character or enhance their appearances. Whereas makeup is done by both actors and cosmetic applicators, there is a difference between the two forms. While performance makeup helps you become more your character, cosmetic makeup helps hide your imperfections. In performance such as filmmaking, makeup can completely transform you into somebody else, an older/younger person or even a creature.

As with other artists working in film, the makeup artist's work requires consulting with the script, performers, directors and others associated with the production, to plan out the makeup effects that meet what is desired in each scene or by each character. Makeup artists' job is highly technical because they also have to duplicate makeup from a different day so actor's appearances remain the same for the filming. Just as well, they need to continually apply makeup on actors throughout each day of shooting.

3.2 Makeup in Character Establishment

Makeup plays an important part in establishing a character in the world of film, where a progressively complicated range of characters are created. No matter how complicated or otherworldly a character is in a script, it is the makeup designer's job to ensure that the actor is transformed into that character, using various materials. For many actors, the makeup process is a vital part of their preparations for getting into character because it allows them to move psychologically into the role as defined by the script. As actors are seated in front of the mirror, being made up, they see their own transformation, which also helps them to transform on the inside to the roles they are playing.

3.3 Special Effects Make-up (FX Makeup)

The use of special techniques to enhance actors' physical features to exhibit metaphysical or non-human characteristics, as well as fantasy makeup, is called special effect makeup. It also involves the use of prosthetics, plaster and rubber casting for projects that entails non-human appearances. Special effect makeup includes the use and ooze of theatrical or fake blood, as you did with your blood squib in the previous module.

3.4 Skills Required of a Makeup Designer

Makeup is a highly specialised aspect of filmmaking. Makeup artists specialise in a variety of roles, such as theatrical makeup, cinema makeup, fashion photography and runway makeup, or special effects makeup. They require years of training and practice to learn the materials, principles and techniques of makeup. Special effects makeup is particularly prominent in the world of film because of the usual need to transform artists into other personages. In *The Lord of the Rings* trilogy, the prosthetic feet worn by the hobbits were made by a team of special effects makeup artists, who made hundreds of pairs. To execute their jobs, makeup artists need certain skills and proficiencies, including the following:

(i) *Passion for design*

A makeup artist must have passion for design, and a deep knowledge and appreciation of makeup across history and cultures. The makeup artist must spend a lot of time researching and compiling reference materials before commencing work in each film project. This needs passion, because of the long hours that makeup processes may take.

(ii) *Creative Ability*

A makeup artist needs also possess the ability to make sketches and drawings using freehand. The templates and visuals that the makeup artist produces, during and after research, are always hand drawn sketches. The actor's face needs also be sketched, sometimes, to enable the makeup artist do pre-effects before working on the actual face. A creative sketching ability is then an essential skill for the makeup artist.

(iii) *Skills in Sculpture and other Plastic Arts*

Makeup artists need strong foundations in the artistic materials and methods of sculpture, including modelling, sculpting, reproduce sculptures, etc. Thus, the makeup artist's job is very demanding and highly skilled because it goes beyond cosmetic application of pigments to the actors' faces. They need to be familiar with design, elements of design and the principles of colour too.

(iv) *The Use of Cosmetics*

A makeup artist must be trained in the use of various types of cosmetics, their application, and tools for applying them, including how to improvise cosmetics with available materials. The principles of design and colour are vital to the application of cosmetics.

(v) *Software Capabilities*

While freehand sketching skills are inalienable to the job of a makeup artist, you need to keep in mind that we live in a digital era where software enhances professional competences. Therefore, makeup artist today must incorporate computer aided design (CAD) software into their process. Software in use today enable makeup artists to try a whole range of styles and designs on the computer or other handhelds, before they actually work on the actor's makeup. A makeup artist needs to be able to use current technologies effectively.

(vi) *Good knowledge of Anatomy*

Much of the work of the makeup artist is to enhance and modify an actor's features, or even create a new personage out of an actor. Therefore, a good knowledge of human and animal anatomy is essential to enable a makeup artist achieve the goals of making-up actors into specific characters defined by the script and the director's creative templates.

4.0 Self-Assessment Exercise

- What is makeup design?
- In what ways does makeup help in filmmaking?
- List 5 skills of a makeup artist.

5.0 Conclusion

Any set of clothes worn in order to play a character's role is called costume. Costumes are inalienable to filmmaking because they are what complete a character's role. In film production, a costume designer is the person in charge of designing the clothing elements worn by actors. Costumes are designed and made to complement other visual aspects of the film's scenic ambiences such as lighting, colour, mood, etc. Thus, a costume designer is also tasked with working in concert with other design professionals in mediums like lighting and scenic design to create a cohesive aesthetic for the production as a whole. A costume designer must have skills such as passion for design, creative abilities, software capabilities, and at least basic sewing knowledge.

6.0 Summary

In this unit, we have been able to understand what makeup is, and how it is used in film production. We have also been able to outline what special effect makeup is, and the skills required of a makeup artist.

7.0 Tutor-Marked Assignment

Using yourself as an actor, use makeup to give yourself identity of the opposite sex. Submit photographs of your processes, with 8 pictures showing the front, left, back and right views of you before and after the makeup.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Anawalt, Patricia R (2007). *The World Wide History of Dress*. Thames and Hudson.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own*. <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Cole, Holly, and Kristin Burke (2005). *Costuming for Film: The Art and the Craft*. Silman-James Press.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

Corson, Richard. Fashions in Makeup: From Ancient to Modern Times. London: Peter Owen Ltd., 1972.

Delamar, Penny. The Complete Make-up Artist: Working in Film, Television, and Theater. 2nd edition. Evanston, Ill.: Northwestern University Press, 2002.

Encyclopaedia Britannica (2020). *Special Effects*. <https://www.britannica.com/technology/motion-picture-technology/Special-effects#ref508492>.

How Does a Green Screen Work? <https://www.wonderopolis.org/wonder/how-does-a-green-screen-work >.

Nevada Film Office (2011). *Production Notes: Set Construction*. <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum)*. <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

Stage Design. *Encyclopaedia Britannica 2003*. Ultimate Reference Suite CD-ROM. Chicago: Encyclopædia Britannica, Inc.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.

UNIT 3 UNDERSTANDING PROPS IN PRODUCTIONS

Unit Structure

1.0 Introduction

This unit introduces you to the nature of prop design in film production and the materials and methods of achieving them. In this unit, many of the ideas you learnt from Unit 1, Module 2 also apply. To make the most of this unit, it is recommended that you refer to previous units.

2.0 Objectives

At the end of this unit, you should be able to do the following:

- Understand what a prop is.
- Understand how to design a prop.
- Understand the materials and methods of prop design.

3.0 Main Content

3.1 Materials Needed

As noted earlier, this course has a practical component that must be fulfilled to enable you make the most of it. Therefore, you have to buy some basic design materials that will help you realise the objectives of this course, and do your assignments. The following Table indicates the materials you need to have, what they are used for, with an illustration under it (Fig. 1):

Material	Quantity	Uses
Sketch Pad (A4 size)	1	It is the paper on which you will make all your initial sketches and put down your ideas.
2b pencil	1	For sketching and drawing

Eraser	1	For erasing unwanted pencil lines.
Plastic ruler		For drawing straight lines
Poster colours (at least 50ml of white, black, yellow, blue, red)	1 set	For colouring your designs
Colour pencils	1 set	For colouring designs
Set of brushes	1 set	For applying poster colour to your designs
Plastic palette	1	For mixing poster colours
Craft knife	1	For cutting design paper and other light materials
Scissors	1	For cutting design paper and other light materials
Drawing board or table	1	The surface on which you will work
Can of silver spray paint	1	Used spray painting
A tube of UHU gum	1	Adhesive for joining parts together
Chipboard paper	2 sheets	For use as construction material
1½ inch flat foam of any colour (20x20cm size)	1 sheet	For use as prop construction material

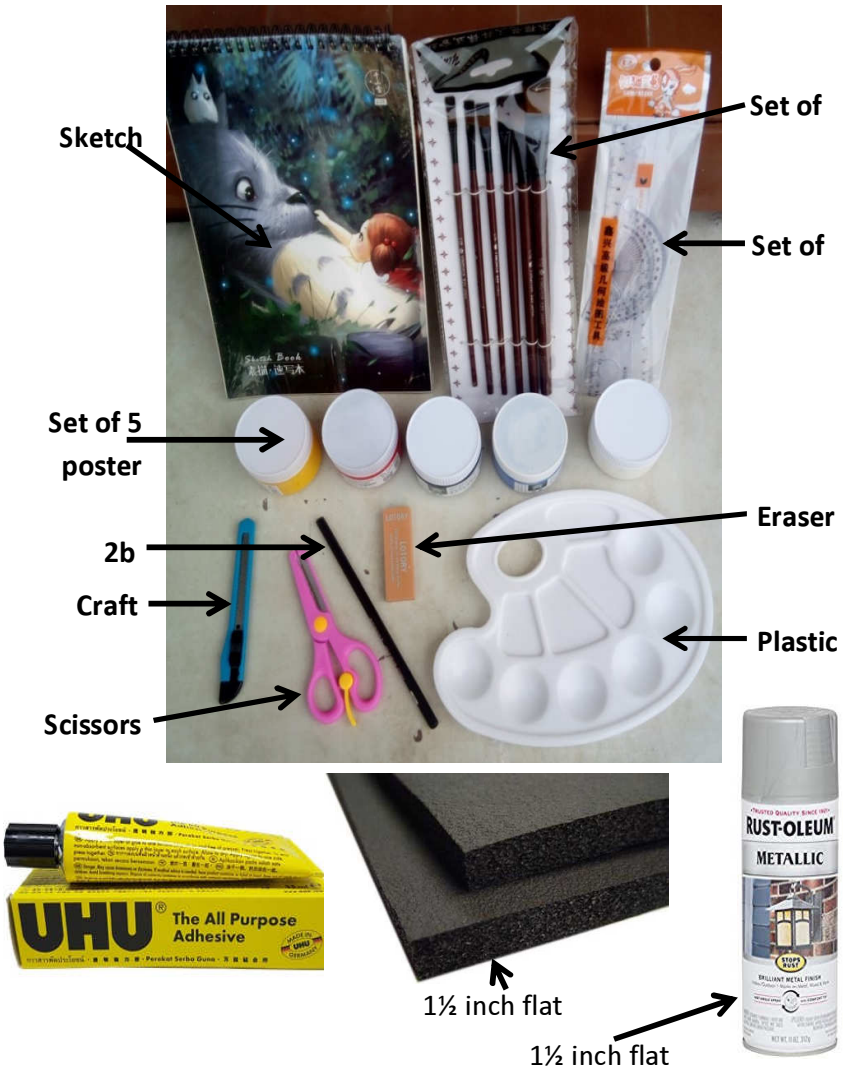


Fig. 1: Materials needed for this course. They can be bought at any art

3.2 What is a Prop in Filmmaking?

From the theatrical, prop (property) refers to any object used during performance on stage or screen by actors. In professional terms, a prop is any movable or portable thing, including consumable food items used by performers on a stage or a set. Thus prop is distinct from actors, scenery, costumes, and other electrical equipment. However, a prop used on stage needs not be a real one. It can be designed and constructed to mirror the real thing. If, for instance, a scene in the production requires a gun, it is not the practice to bring a real gun to the set. The professional practice is to use prop guns, which are made replicas of real guns but can neither shoot real bullets nor be modified to do so. Prop knives, swords and other weapons are also used on stage, rather than the real ones. The use of prop weapons evolved in the film industry out of obvious safety concerns. In

filmmaking several factors may determine whether to construct a prop for the production or buy a ready-made prop from specialist dealers. Such factors include budget, time constraints, and the availability of skilled manpower for prop production. While ordering props from specialised dealers may be quite expensive, it is far cheaper to design and construct a prop for your production. Depending on the script, story and effect sought by the director, many props have to be custom built on order from dealers, making them very expensive indeed. However, if you have the skills or have access to an artist or technician with the skills, it is a whole lot cheaper to produce your own props, since you know what is required of the prop and context of its use.

3.3 Common Types of Props

(i) Prop Weapons

While prop weapons like knives, guns or swords look functional, they lack the intentional harmfulness of the real weapon. In the theatre or film, prop weapons either merely nonworking replicas, or have safety features to eliminate danger. For the stage, guns fire caps or noisy blanks, knives are often made of plastic or rubber and swords are dulled. However, in film production, fully functional weapons are mostly used, but special smoke blanks are used on blank adapted guns. No real bullets are used. The reason why special smoke blanks are used is that, real cartridges with bullets removed are still dangerous and have caused several tragic instances on stage or film productions. To ensure safety and proper handling, real weapons used as props, the prop master and law enforcement agencies monitor their use for film and television. This monitoring is generally not required for stage productions, since these props are permanently disabled or "plugged".

(ii) Stunt Props

Objects that are designed to breakaway or scatter during productions are called stunt props. Such include balsa-wood furniture or sugar glass, which is a mock-glassware made of crystallized sugar. Mock glassware breaks with real-looking debris but rarely cause injury due to their light weight and weak structure. In the profession, stunt doubles replace the main actors for scenes involving the use of breakaway props. In order to minimise injury, rubber bladed-weapons and guns are examples of props used by stuntmen and actors where the action requires such a stunt prop.

(iv) Hero Props

Very detailed props handled by actors, and which the camera will zoom into for inspection are called “hero props”. Since the camera will detail it,

the hero prop has very delicately made parts, inscriptions and functions such as moving parts, legible inscriptions, lights, display panels and other functional attributes. Props that beam and fire lazers in science fiction films are examples of hero props. However, all the extra functions on the hero prop make them more expensive and less durable than normal props. Hero props are custom made for the productions.

(v) Prop money

Many films require the use of money in their scenes. At these moments, prop money is used, rather than the real currency. However, prop money must comply with strict counterfeit money regulations. Read the link bellow to learn about the regulations concerning making and using prop money in productions:

https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money

3.4 The Importance of Props in Film Production

As we have discussed earlier, props are vital parts of a film, TV or theatre production. Productions are nothing without props and it is the props that help tell the story in a production. If, for instance, a character has to use a chair in a scene, the chair is carefully selected according to the character's emotional state and performance ambience. It cannot be any chair. It has to be the perfect chair for that particular character. This means that props are an extension of the character's personality because it is the prop that will give audiences subconscious cues that determine how or what to feel about a situation or character. Used in a production, props generally convey the following:

(i) Circumstance

Props convey the time and place in which the narrative is set. Props indicate the decade, society, culture or economy a story is set in. For example, if a story is set in Ancient Ife Kingdom, certain props that establish the location as "Ife Kingdom" will be used. These props will replicate known cultural artefacts of the era, as reviewed from historical records. This means that the prop maker needs to do a whole lot of research to design and make props that appropriately tell the story and help the audience to place the action.

(ii) Atmosphere

While the props help audiences to understand the narrative, they also enable actors get a feel for their roles. Actors will more easily get into

their Ancient Ife roles if they are dressed similar to, and hold props used in the time period in that Nigerian Kingdom.

(iii) Character

Props make film characters readily recognisable by audiences. Think immediately of Thor's hammer and helmet. These two props serve to extend Thor's personality and make him instantly recognisable to audiences across the globe.

(iv) Safety

Props help ensure the safety of actors by eliminating the dangers associated with the real items. For example, a fake knife of gun do not put actors in danger, but look as intimidating as the real weapons.

3.5 How to Construct a Movie Prop

(i) Plan the Prop

You start-off prop design by studying the script because it has all the information about the story, characters and how the prop is to be used. Take detailed notes as you thoroughly study the script to get an idea about how the prop will be used and how it should look. List all the props required and note the scene in which they are to be used, including the character that will use them.

(ii) Get a Brief from the Director

Working closely with the director, tease out any ideas concerning the props indicated in the script. In interacting with the director to get your brief, some of the considerations are as follows:

- Is the prop to be designed from the scratch or bought from a dealer?
- What colour is required of the prop?
- How much is the budget for prop acquisition?
- What are the effects required to be seen in the prop?

(iii) Sketch and Discuss the Prop Design with the Director

After studying the script, listing all the needed props and getting a brief from the director, you need to now put your ideas into clear sketches for the director to see and agree on the sketches that fit. In general, your work at this stage will include the following:

- Compile photographs of props found in shops or online, and show the director ways to use or adapt them to fit the movie.
- Make good sketches with pencil on paper and list all props required.

- Review clips and shots from other films to see props that can fit or can be adapted to give character to your production.

(iv) Making a Prop or Buying One?

A prop designer needs not always make one. It is possible to buy props that can be used as they are, or that need only minor adjustments or redecoration to fit the film's needs. Working with the director, you need to make a decision to buy and make, in the context of the budget. A made prop may be cheaper one from a dealer. To decide, you just need to find out the market values and compare them with the cost of making them. Making your own prop gives you full control over the design.

(v) Drafting a Budget for Prop Design and Acquisition

After all the planning, consultations, sketches and approvals from the director, a budget needs be made to accommodate the making or buying of all the props listed. If you are going to buy them from dealers, you need to do market surveys to get the best bargain on the items. If you choose to make your own props, you need to identify materials, artists and technicians that can translate your designs into realistic props. Your sketches and functional briefs will enable the artists and technicians give you a costing for production. If you have the skills, you may also produce the props yourself within the budget. Costs will normally be the determining factor for deciding whether to produce yours or buy props from a dealer.

(vi) Applying Colour to Props

Very often, you may not get the right colour of prop, even if you found one that structurally fits your purpose. In this case, you will have to paint them to fit your colour requirements. Also, if you make your own props, you need to colour them too. Painting props is really easy, if you have the right skills. For simple props like knives, guns and swords, a few cans of silver and black spray paint will usually do the trick. More complex colourations to achieve aged or rustic looks require professional skills. Spray paint must always be applied outdoors to allow the fumes disperse. To paint bigger props like furniture, refer to and follow the steps and procedures outlined in the previous unit.

4.0 Self-Assessment Exercise

- What is a film prop?
- Why are real weapons not used on set?
- What is the name of the guns used on set?
- Name 4 types of props.

5.0 Conclusion

Props are most vital for film production because they help place the action and also enable the actors to get into their roles. While props can be bought at dealers', it is also possible to make your own from your designs. Props to be made for productions are determined by the script and the director's choices. For safety reasons, materials for making prop weapons eliminate the dangers of using the real things. Props at dealers' shops are sometimes available in the wrong colours. At such moments, you can change the colour by using spray paint or any other applicable commercial paint.

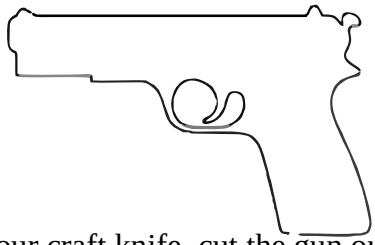
6.0 Summary

In this unit, we have been able to understand what a prop is and how it is used in productions.We have also learnt about the different types of props, and why real weapons are not used as props in productions. We learnt that we can either make our own props or buy from dealers.

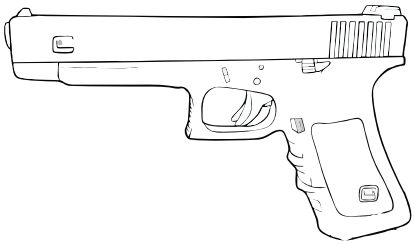
7.0 Tutor-Marked Assignment

Make your own Prop Gun

1. Place your 1½ inch sheet of foam on your drawing board.
2. Go online, search for hand guns and select and print a life size picture of one that you like.
3. Using a ruler and pencil, draw the gun on one side of your 1½ inch sheet of foam.



4. Using your craft knife, cut the gun out of the foam.
5. Mark out all the gun details on both sides of the cut out gun.



6. Cut small pieces of foam to size of the gun's other details and stick in place with the UHU glue.

7. Using your silver spray paint, spray both sides of the gun evenly. Spray outdoors and leave to dry.
8. Using your brush, apply black paint sparingly on the stuck up details of both sides of the gun.
9. Leave to dry and your prop gun is ready.

8.0 References/Further Reading

Ajibade, Babson and Effiong Omini (2014). Creative and Media Arts: A Practical Source Book. Calabar: Spindrel International Company.

Cherdon, H. (2019). *DIY Prop Gun Designs to Make Your Own*. <https://www.austinfilmmeet.com/library/art-design/8-diy-prop-gun-designs-to-make-your-own/>.

Color Meaning". *Color Wheel Pro - See Color Theory in Action*. http://www.color-wheel-pro.com/color-meaning.html. Accessed 18/01/2020.

How to Make a Movie Set (2019). *Wikihow*. <https://www.wikihow.com/Make-a-Movie-Set>. Accessed 19/01/2020.

Lupton, Ellen and Phillips, Jennifer (2004). Graphic Design: The New Basics. New York, NY: Princeton Architectural Press..

Marshall, Peter D. (2008). "12 Colors and Their Meanings". *Film Directing Tips: Filmmaking Advice from Film Directing Coach and Author*…. http://filmdirectingtips.com/archives/157.

Munari, Bruno, Patrick Creagh (2008). Design as Art. Westminster, London: Penguin Classics.

Nevada Film Office (2011). *Production Notes: Set Construction*. <https://nevadafilm.com/production-notes-set-construction/>. Accessed 19/01/2020.

Omini, Effiong and Babson Ajibade (1999). Promotion, Art and Design: An Integrated Approach to the Basics. Eds. Effiong Omini and Babson Ajibade. Calabar: Baaj International Company.

Renee, V. (2015). *How to Make a DIY Prop Handgun out of Styrofoam (& then Cast It in Solid Aluminum)*. <https://nofilmschool.com/2016/03/how-make-diy-prop-handgun-out-styrofoam-then-cast-it-solid-aluminum>.

Rods, Davis (2020). "How Film Set Construction Works". *How Stuff Works*. <https://entertainment.howstuffworks.com/film-set-construction.htm >. Accessed 19/01/2020.

Serafino, Jay (2017). *How U.S. Counterfeit Laws Impact Hollywood Prop Money*. <https://www.mentalfloss.com/article/94829/how-us-counterfeit-laws-impact-hollywood-prop-money>.

Synclair, Jen (2017). "Plywood Use in Film and Television". <https://www.famitchell.com.au/plywood-use-in-film-and-television/>.

The Art of Illusion: The Design of Film Set Construction (2019). *Urdesign*. <https://www.urdesignmag.com/architecture/2019/08/02/the-art-of-illusion-the-design-of-film-set-construction/>. Accessed 19/01/2020.