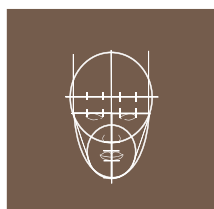
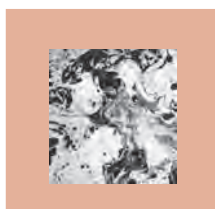
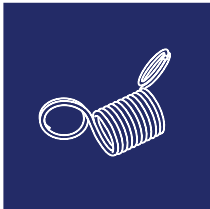
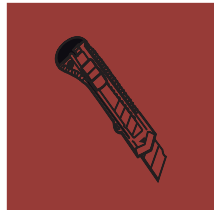
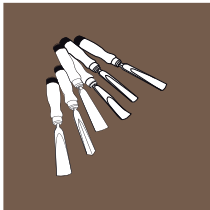
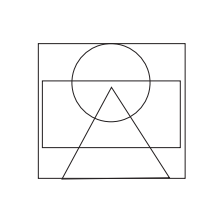


Art and Design

A comprehensive guide for creative artists

Muyanja Michael



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Preface

The goals of this book

1. To provide a broad and comprehensive introduction to guiding principals and theories of art and design.
2. To present creative approaches of doing art and design in a reader-oriented format.
3. To provide a module of teaching and studying art and design using recycled as well as locally available materials for students of the course.

Target category

- a. Students preparing to qualify for examinations in major professional institutions such as secondary schools, colleges of art and design in respect to the syllabi at hand.
- b. Professional students taking qualifying examinations of the Uganda National Examinations Board.
- c. Undergraduate students on degree courses in commercial art and industrial art and design as well as fine art.
- d. Post-training students on industrial training and school practice.
- e. Practitioners and qualifying professional students in the areas of full or part-time courses in interior design, fabric printing, graphic design, sculpture, ornaments, drawing, painting, mosaics et cetera.
- f. Practitioners in the art business, commercial, public and not-for profit sectors of art and design or fine art.

Format

- a. Associated groups of chapters have been assembled into sections with each; ending with a fitting tasks for self-review.
- b. Mostly, the availed sample questions address social issues of people's daily lives.
- c. Easy to use tables have been convened in some sections for a quick review of the most wanted subject matter.
- d. The book provides a brief review of history of African art. In individual and separate chapters.
- e. Important resources are listed in references for further reading at the back of this book.

- f. Enough space has been made available on each side of facing pages for the user to make notes.

Use

- This book can be used as a unit or module textbook, as well as a study text for students working on an independent or personal-learning basis.
- Also, it can be used as an instruction manual for persons actively associated with art and design fields of study.

Comments and suggestions

The author welcomes constructive comments and suggestions from readers, artists and institutions about the content and format of this book.

Lecturers' supplement

A free lecturers' supplement is available to those lecturers, teachers and tutors adopting the book for their course text. It may be obtained by writing on college, or institution headed paper to the author or through the publishers.

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Introduction

Art and Design: A Comprehensive Guide for Creative Artists has been carefully written as a knowledge base for art and design training, schoolwork and practice. Indeed, learners who will use this book will surely have a good start and they will also increase their awareness of the diversity of art and design—outside the physical limits of a classroom.

We use Art and Design to learn about other people, their cultures and values; to communicate and to express our thoughts and feelings. Art can be used in different traditional ways like worships, adoration and ceremonies.

Art and Design, A Comprehensive Guide for Creative Artists provides it all with scholarly academic instructions associated with the needs of local people.

This book also argues that creative artists should remember to consider their actual application of ideas to practices. It provides feasible guidance to continuous working during school sessions and after classroom as a way of increasing learners' curiosities on every side of learning. Hence, maintain proficiency.

Art and Design, A Comprehensive Guide for Creative Artists has provided suggestions of ideas to artists especially art learners, with various ways of developing and producing artworks from available sources of inspirations, by encouraging experimentation and innovative thinking where there is scarcity during learning, let alone materials of art are expensive.

As a consequence of that, skills of creativity have been reinforced together with strategies of executing art by nurturing the learner to use found objects and local materials, tools and equipment—at some future time, a learning process shall reach the ambition of recycling.

Art and Design, A Comprehensive Guide for Creative Artists also provides study recommendations about art and design topics necessary for learners in secondary schools and art colleges. Although by design, the basic learning goals in various chapters of the book have not been set for a particular level or group of learners. The teacher is advised to rely on the art teaching syllabus to plan a lesson.

A lot of consultations about useful academic comprehension have been referred to as a way of stretching for essential school knowledge. In that case, several reference books and online links have been included for further reading and to provide good cross-examination on important topics with possible solutions, during art debates and/or for discussions.

Acknowledgement

The book project Art and Design, A Comprehensive Guide for Creative Artists has been written with the help of remarkable people who have advised, given me ideas and suggestions about how to improve the book. I received a lot of knowledge and assistance from various intelligent people during my time as a student at Kyambogo University. Department of Art and Design with Education.

My team-mates at that time were; Henry Mujjuzi, Edwin Wathum, Joan Kekimuri Arineitwe, Justine Nabaggala (PhD-candidate), Jenny Namuwonge Kyeyune and Emmanuel Mutungi (PhD-candidate)

Let me also congratulate my other auxiliary team of Makerere University, Margaret Trowell School of Industrial and Fine Arts, from whom I obtained inspirational awakening of self-understanding to promote and improve the purpose of the book.

They were; Dr George Kyeyune (PhD), Dr Venny Nakazibwe (PhD), Dr. Kabiito Mutagejja Richard (PhD) and Dr. Kizito Maria Kasule (PhD). I am also grateful to teachers; John Mary Mawejje and Mark Kasiita Muliro for permission to work with children from their (secondary) schools. I am convinced that they will recognise that I learned a lot from them.

A lot of useful ideas, concepts, opinions and approaches of learning about art and design—moral support, knowledge to change and develop the book was made available during the length of time I spent at Taideteollinen korkeakoulu (University of Art and Design. Taik, Finland) it is currently known as Aalto University, School of Art and Design, Department of Media (Graphic Design). I wish to thank Professor. Tapio Vapaasalo for advising me throughout the process of writing and printing this work; and staff of the Department.

Pirkko Pohjakallio-Koskinen, Heikki Ohvo and Rebekka Muyanja for all their study contributions and equipment, hardware and software.

I am appreciative to them all and to my friends, the editor Mark and Sinipii Pickett as well as Professor Kefa. M. Otiso, University of Minnesota for a great deal of help. They all provided me with many useful suggestions that made it possible for me to finish the book. Also, am grateful to Mihail Solanakis for giving me access to the working studio/classrooms. Heikki Ohvo and Satu Ilta for guiding me in matters of establishing a fulfilling layout for the design of the book.

Finally, I would like to thank my family and friends whose support and encouragement made this book a worthwhile undertaking.

CHAPTER ONE

Art and design

Art and design is a broad discipline, which occupies the complete attention of creativity, function, expression, form and composition.

Needless to say, the meanings and explanations of art and design differ in so many ways.

Cohen et al (1976, 17) prefer a different description: "Art refers to the conscious efforts of human beings; alongside enclosed arrangement of colours, shapes, lines, sound, movement and other sensory phenomenon, to express their ideas and feelings about themselves and their world."

Generally, art and design add up to skill acquisition, function, history, politics, business, music, architecture, environment and society/community.

Importance of art and design

Not every importance of art shall be considered here. But for the sake of learning let us make our analysis with Irving's (1996) explanation that "art education seek to develop sensitive, creative and artistically literate individuals who may grow to learn aesthetically, emotionally and intellectually through active expression in arts."

That is to say, the important aspects of art and design study lead to acquiring necessary knowledge of subject matter, a common ground of creativity, aesthetic awareness, function and self-expressions. Jenkins (1980, 12) adds, "... the value of art to the child is as the goals of an art experience and projects."

Here are some indistinguishable adaptations selected from Jenkins (1980, 12) transcribed value of art to a child and to the society:

- Art and design is a source of material for spiritual, political, economic, social and religious rituals.
- Art and design "develops creative thinking."
- It is a desirable skill set out for self-employment.
- By doing art and design we "enhance our visual ability."

- Art and design provides an easy "means of communication and self-expression." Through critiques and by creating designs.
- On the other hand, a learner can "generate absolute joy" of gaining an evidence-based skill whenever an art and design task is successfully executed.
- Many art and design courses "provide problem solving decisions and opportunities."
- It also "serves as a balance to the daily classroom activities."
- It allows the development of workshop habits and "sense of responsibility" by working in groups.
- It is used as a tool of "understanding and helping children," natural tendencies.
- Art and design can also be used for intensifying "aesthetic awareness" and appreciation of indigenous art and local materials.
- Art and design has got latent qualities that allow interconnections with other academic disciplines like science and history.
- Doing art and design increases the learner's attention span, tolerance, commitment and interpretation of facts.
- Art and design holds diverse lucrative career options such as, teaching; art and design and working as a landscape decorator, interior, fashion and furniture designer.

African art

African art can briefly be traced from various sources. Willett (1971, 28, 36) believes, "it is anonymous." To this point, a lot of pre historic art has been discovered in the African highlands, caves below mountains, river basins and forest lowlands in central and parts of western Africa.

On the other hand, African art originates from different societies of people. For example, the Hausa of Northern Nigeria, Ibo, Fanti, Fulani, Yoruba, Mangbetu, Kota, Makonde, Bambara, Kwele, Luba and the most predominant Bantu.

From each group of the traditional African people we find “common aesthetic standards which operate across cultural frontiers.” While at the same time, “... among the many groups, art is fundamentally non-professional ... a man whose talent is well known may be commissioned to work for someone else. Therefore, “a single work ... cannot represent a whole.” (Willett 1971, 216, 222)

Accordingly, studies of pre historic African art indicate that, subject matter and technique depicted the activities of the people who lived in the distinct places. Willett (1971, 48, 58) argues with this enlightening example that on rock walls “engravings ... of animals now extinct in the area ... are still found in the Sahara rocks.” Also, the paintings reveal animals and figures of humans in hunting or fighting actions. Indeed, some of the latest paintings and engravings seen today—appear to have been made by “Bantu speaking people and some were probably done by Hettentots.”

Aesthetics

African art served various known for functions. It is “not just about aesthetics, it is also about meaning and function.” It has many different aspects of human society that can be studied, in ethnic regional and religious attributes—“in specific time periods and medium of the artwork.” (Forafricanart.com.2006)

From this we can understand that there is much to learn from the big scope of African art. For the most part, beauty and worship was a satisfaction of everyday life for the people. Different tribes created art for household, beauty and architectural purposes. For instance, in Nigeria the Bandele and Lamidi made “traditional forms of sculpture, weaving, embroidery, leather and bead work ... but, there were a specific aesthetic for each society.” Willett (1971, 208, 247-248) alleges.

Several African tribal people decorate their bodies using aesthetically pleasing colours from “natural pigments.” Other decorative embellishments used were ornamentation and body scarring to portray beauty for women. And for men, scaring indicated strength and toughness. Moreover, by using materials from nature “body painting was not done in isolation.” As Silvester (2009, 4) states

Krutak (2008) prefers a different justification: “Distinctive people among the Fulani wear bright dresses, much jewellery and even facial makeup for beauty.” Therefore, the notion of aesthetic judgement with reference to tribal people of Africa was wide spread. It was also practiced by body tribes in Ethiopia (Omo), Chad (Fulani), Zaire (Luba) and many in the sub-Sahara regions of Africa.

A large number of African tribal women make baskets as aesthetic expressions of their culture and identity. The techniques used in weaving are still distributed through inheritance from (traditional) indigenous knowledge. Remarkable types of baskets are aesthetically woven in different shapes and sizes for various purposes. Somjee (1993, 82) informs us, “... in Busia District, the high land weavers use reeds from river banks to make ebukuti” type of basket. He continues to state that “the smallest eating baskets are covered with cow dung on the outside ... to keep and serve ugali—covered with another basket to keep it warm and away from dust and flies.” And the “larger baskets carry” food stuffs from the market.

Evidently, then, African art and aesthetics reveals some levels of quality, function and beauty. At the same time, it is creatively executed from natural fibres, which come from our accustomed surroundings; the use of locally obtained weaving materials helps the tribal people to decorate functional baskets, mats, carpets that are woven to carry or keep food, clothing and other personal items such as medicines or makeup.

As earlier mentioned, many African tribal people do painting and scar decorations on their bodies. The same decorations of geometrical shapes and patterns are also used to enhance surface appearances of their day to day domestic equipment, as well as decorating home territories or places of residences. Willet (1971, 17) notes, “the Masai of Kenya and northern Tanganyika not only paint their shields with decorations which indicate their groups of sections, but they occasionally paint—other motifs on immobile surfaces such as rock shelters and even concrete water containers.”



*A wooden bowl.
It is decorated
with geometric
designs.*

Several examples of geometric patterns on objects of art can be found in Songee's (1993, 50-51) *Materials and culture of Kenya*. He lists "tools, containers and body wear" made by various tribal groups of Kenya.

Here are some of them:

- The naksi patterns—are nine in small spaces, delicately carved with a sharp knife on a club. Such patterns are also made on furniture and houses.
- The Barona eating bowl; on its surface, the container reveals carvings of geometric—"circular shapes" relating to the shape of the bowl.
- A milk container used by the Turkana. Its mouth is made of leather that is skilfully joined on the wood, with the joints stitched by fine palm-leaf. They show strips of beautiful pattern in triangles and lines.
- Another one is "the stelab"—carefully dressed in a red leather sheath, from the Northern Kenya. It is a Somali sword decorated with patterns of crosses. The patterns are also used to mark animals by clans.

We can also add more to this as a conclusion by reconsidering basic geometric shapes throughout the course of teaching art—and also regard the effect of recycling with the demands of specified learning objectives for art and design projects. Harney (2004, 123) explains, "The growing popularity of recycling has brought with it new aesthetic discourses and paradoxically, has opened new spaces."

Fashion and art

Fashions and art, side by side with African art is broad. In the meantime, there are many tribal groups of African people who have not yet discovered the needs of popular trends; to dressing up—wearing clothes or fabrics to cover their bodies. Instead, they wear improvised ornamental objects in styles of their own particular meanings. Or they are "generally naked." (Silvester 2009, 3)

On the other hand, some of the most admired African fashions, decorations and patterns—such as those made by weaving techniques have their traditional patterns revealing a series of geometric motifs.

Also, some groups of African tribal people wear colourful fabrics that are treated with natural dyes. The designs created on fabric surfaces reveal intricate patterns and designs. A mix and match of heavy jewellery is also worn to pronounce status and for different fashions as being worthy of attention. Somjee (1993, 11) reminds us, "a traditional married Tugen woman wears ... a beautiful skirt with many strings until the time that she becomes a widow. It is a symbol of her marriage and it is as important as a ring in a Christian marriage."

In Eastern Africa, elderly men wear kanzu cloth (similar to an Arabic tunic) for informal occasions such as cultural rituals, ceremonies and worships. Similarly, on the Kenya coastal province of Bajumwali and among the Baganda tribe of Uganda, the "male wear a coat or a jibau, over a kanzu—in similar fashion with the European design of a coat." Somjee (1993, 17) notes

Other tribal groups of African people like the Mursi of Omo valley in southern Ethiopia cut and pierce their bodies; particularly the face for facial markings. Others use a lip plate as a sign of beauty. In the words of Silvester (2009, 4), "they can take any material from the plant world—leaf, stem, flower, grass, roots—and instantly transform it into an accessory that has come straight from a fantasy of fairy tale, for them nature provides an infinite wardrobe." In an indistinguishable way, various creative fashion wears have also been replicated by artists and fashion designers who develop and create new styles of clothing and fashion accessories of today.

Otiso (2006, 76) laments, the "traditional Ugandan dress was made from readily available materials such as tree leaves, grass, bark cloth as well as livestock and wild life skins." Coincidentally, such practices were tribal gestures of beauty. They disclose art of traditional communities in dignified fashions.

Among the Borana tribe originating from Southern Ethiopia to the South Northern areas of Kenya, they put-on body covers consideration their climate. They are nomadic pastoral people who use "the baddo, a hand woven cotton cloth. It is rectangular—made of two pieces of cloth stitched together ... like two bed covers." (Somjee 1993, 14)



A man dressed in a traditional wear of a kanzu



A tribal African man wearing a ceremonial headdress, made with feathers from birds

The fabric protects the nomads from hot sun and cold nights.

Ultimately, while some tribal African people wear head-dresses made with plants or natural objects, others wear complete ornamental head-dresses made with non-native fabrics to cover or band the head. To some groups of people head-dresses are worn on ceremonial occasions.

Somjee (1993, 5) reminds us that “In some exclusive tribes they are status symbols elders' head wears reflect authority, wealth and wisdom. It also gives an ethnic and national identity to the wearer.”

Rituals and worship

Numerous indigenous African people believe and they also worship small gods. African art production usually empathises with ceremonies like rituals and it serves on a more spiritual basis in many tribes—the artist who produced it also had a high status. The objects carved were used for showing social status and spiritual well-being.

During ritual and worship ceremonies, the young and old tribal people dance to entice, entertain and to evoke feelings of praise and worship. They play traditional musical instruments made from horns of animals, drums made with animal skin; stretched on hollow shaped tree logs and they dress up with plant leaves and feathers from birds. Kyeyune (2003, 56) explains, “It is not entirely correct to say that art ... was not spiritually driven.”

Equally, during worships, different tribal people dress up in ritual wears; sometimes they carry artistic instruments of power. Their wears tend to differ by location and many times—every aspect is associate with a definite importance that may be related to a specific ritual.

Some materials and equipment used include wooden or clay masks, drums, beads; created from different kinds of wood, seeds and bones. All these are intended for evoking feelings of praise and worship. They may be worn in the head, neck, hands and legs. Ritual worshipers also use bonfires and they also tend to drink local beers.

In Benin the scarification ritual includes “blood sacrifices that are accompanied by singing and dancing.” Krutak (2008) observes. African ceremonial art was skilfully done

with hands—out of wood, stone, plant fibres or any other natural materials and then, it is often richly decorated in tribal designs for relevant rituals; some underlying meanings are revealed through “super structural” adornings of various traditional tribal societies. For they “add to the entertainment value of the mask.” (Willet 1971, 66)

The Akan people of Ghana used carved stools as symbols which connected they're being to gods. They valued carved stools so highly that no one is allowed to sit on a stool he / she does not own.

Ejizu (2010) believes, “a carved ancestral stool among the Akan of Ghana and 'okpensi' of the traditional Igbo ... are also the shrines of the 'Muzimu' and (ancestors) among the Baganda of Uganda.” Each time that person is not sittings on the stool. It is turned on side (Up-side down) as a way of avoiding another person's spirit to get absorbed in it.

Moreover, during entertainments or performances the guests and worshipers dress up in ritual masks and other ornamentations. Such wears are common during the activity days of communal feasts and commemorations. Other special occasions include cleansing, honouring, entertaining, initiations and giving blessings. According to Otiso, (1970, 130) on “weddings, songs are routinely sung to praise the bride and the groom and also offer them advice on how to successfully conduct marriage.”

The “Bapembe people from Congo carved and decorated wooden masks to manage or guard themselves from attacks of dead ancestors and super natural forces ... The person who has to benefit from their intervention may be required to wear a miniature copy of the mask” (Willet 1970, 195). In Western Africa, the Yoruba people of Nigeria and Benin used an ornamented tray for divination. In Jegede's (2002) article, *This is African Art? Now You Confuse Me*—“the tray is used by a priest, or babalawo, in assisting a client to find spiritual solution to his or her problems.”

We can conclude from this that masks, stools and other instruments were relevant for rituals and worships for the African people. “There were also communal shrines, masquerades, ritual objects for festivals, recreational activity, social, economic and religious purposes” (Ejizu, 2010).

Architecture

A basic example of the earliest architectural belongings of African art, were caves and the remains of the ancient Egyptian tomb pyramids. They are the burial places of dead kings. Inside a pyramid, the body of a dead king was buried in the company of statues and everything that he would need in the afterlife. They also decorated the tombs with scenes of life recounting their adventures and for magical rituals “to ensure that it becomes imbued within the spirit of the dead.” (Willett 1971, 112)

Generally, African architecture and art is legendarily executed from a diversity of disintegrative materials such as *rammed earth, thatch, sticks/wood, mud or mud bricks, stone and clay*. As an example, the architectural structure of the Ganda tombs for kings at Kasubi near Kampala in Uganda are built with mud walls, the roof is thatched with grass and the enclosing fence is woven with reeds. Inside, the big tomb or hut, the interior is adorned with royal regalia of *spears, decorative mats, bark cloth, animal skins and furniture*. The reed works of the interior are put up to represent the “52 clans of Baganda.” Kyeyune (2003, 45) adds.

Eventually, as a way of accounting for the main points of this study, African art is a very broad area of study. In this subsection, our analysis has been built with several generalisations which do not cover everything. It is difficult to say if they cover even most of the African societies, but these generalisations are kind of typical features of African art in the African societies.

That is to say, it is a statistical model that does not resemble any specific African society in reality and not as much as may be required is availed in every expressions of this subject matter about African art. As a creative artist select what is influential to the impending discussion and do further analysis from the books, which have been listed in the reference section.

Elements of African aesthetics

Ability and skill are some of the values of African art and aesthetics. “The term African aesthetics often intersects words like beauty and goodness ... the Baule peoples of Côte d'Ivoire and others have discerned among the Lega and Songye of the Congo and the Igbo, Edo and Ibibio of Nigeria, among others.” (Vogel, 1986)

As a further matter, Vogel (1986), obtained individual analysis—but not in the same way as Willett (1971) on aspects of African aesthetics in the following ways:

Resemblance	African artists glorify carved figures; they believe that such figures look like human beings. They almost depict actual people, animals, or the actual forms. According to Willett (1971, 212), it is “ <i>jijora</i> , the moderate resemblance of the subject.”
Luminosity	African figural sculptures are often embellished with luminous decorated surfaces, or they are combined with scaring patterns to denote beauty of their healthy skin. Willett (1971, 213) explains, “luminosity, or smoothness of a surface as <i>didon</i> .” Rough and deformed parts were considered ugly and morally invalid.
Self-composed	African artists connect composed behaviour of persons in a rational way. They regard such people as controlled, proud, majestic, dignified and cool. Willett (1971, 213) argues, “coolness or composure is <i>tutu</i> in sculpture—a quality which is sought in human behaviour too.”
Youthfulness	Implies strength, productiveness, toughness, fertility and ability to work. Yet, illness and deformity are infrequently portrayed—for the reason that, they are evil signs. Willett (1971, 213) names it “ <i>Odo</i> , where by, the subject is represented in the prime of life.”
Clarity of forms and detail	Intricacy as well as composition, balance and symmetry, smoothness of finish. Willett (1971, 211, 213) briefly explains clarity of forms and detail as “ <i>ifarahon</i> , visibility.” Certainly, “a sculptor will often carve spontaneously, inspired by a beautiful face, but without attempting to simply represent what they have seen.”

By regarding Willett's (1971, 208) survey about aesthetics in African sculpture—“artists and art critics cultivate their awareness of artistic values in a way not shared by large sections of the community.” For that matter, elements of African aesthetics link value to the artworks we produce, by virtue of physical perfection, moral excellence, social order and some domains of our social activities.

CHAPTER TWO

Elements and principles of design

Artist Henry Matisse once said, "Creation begins with vision."

The artworks and designs that we create may comprise of design aspects like line, shape, colour as well as harmony, proportion and contrast. All this and more, is what we have named elements and principles of design. In Lidwell et al.'s (2010, 12) *Universal principles of design—Introduction*; they broadly referred to principles as "laws, guidelines, human biases and general design disciplines."

Hence, elements and principles of design are compared to parts from which a design can be composed. Leland (1998, 123) suggests, "... with a design based on sound guidelines and for good design, use the elements and principles of design as guidelines. Memorise them and use them consciously." That is to say, they are specifically used as benchmarks that determine a full artwork quality.

Fichner (2007) prefers a different argument on the subject of "principles of design." They are "visual strategies" while elements of design are stipulated "for expressing purpose." In the midst of that, principles of design are regarded as a basis of conduct, which establish success of a formed up design or plan.

And elements of design are used for enhancing the artwork or a design. They include *texture, line, shape, form, tone, shade, value, dots, colour and space (size), mass, solids et cetera*.

Among principles of design we find *balance, rhythm, dominance, proportion, contrast, movement, unity, perspective and harmony*.

Artists vigilantly contemplate ways of using elements and principles of design for the time of executing a design or a planned artwork. Above all, the lists of elements and principles of design mentioned above do not account for the whole lot about them; "They are obviously many." (Lidwell et al. 2010, 12) As a result, a lot more can be added on any list created after investigating about them. Michael et al. (2007, 190) state, "every good design is different from every other good design and all artists have unique ways of using the elements and principles ..."

This tells us that even creative artists have special ways, which they use to embark on each design plan by using elements and principles of design.

In a *Guide article from About.com*, Esaak (2010) writes, "elements and principles of design are sort of atoms, which serve as building blocks" for holding up the process of executing successful artworks or designs. They are compared to other academic disciplines such as chemistry where atoms combine to form other things. As an example "atoms, casually make simple molecules of hydrogen and oxygen to form water (H_2O). If hydrogen and oxygen take a more aggressive career path to bring carbon as a co-worker, together they may form something more complex like a molecule of sucrose ($\text{C}_{12}\text{H}_{22}\text{O}_{11}$)." $\text{C}_{12}\text{H}_{22}\text{O}_{11}$

For this reason, as creative artists, we cannot tell apart what we learn from the co-ordinating units of science and how it establishes a beneficial collaboration with art and designs to create useful things.

Apart from that, "mathematicians" use "algorithm" as a "set of rules for solving problems in a limited number of steps." (Esaak, 2010) Distinctly, then, in various creative ways artists especially learners should be encouraged to find solutions and procedures that operate within a particular design or artworks by using elements and principles of design.

Esaak (2010) continues to enlighten us with another eventual remark: "botanists say *rosa rugosa*" instead of using the much longer word or statement "old-fashioned shrub rose that leaves hips in the fall-with five-petalled flowers that can be yellow, white, red or pink." As a contrast and comparison, artists yearn for elements and principles of designs as a means of giving their entire practical understanding of a subject; by using expressive images or icons instead of explaining the absolute view of reality with logical consequences of words.

In general, artists are different. Thus, they use meanings of each element and principle of design not the same as another. Even though, elements and principles of design are considered to be "the basic ingredients all artists use to create their work and they are what we notice when we look at paintings, sculptures, buildings, crafts and commercial designs" Gerald et al (1977, 54) notes.

Elements of design

A closer look at elements of design provides a general view of the exact meanings for what they may represent. Elements of design are an amusement of our daily life. Michael et al (2007, 184) suggest, "Those who have attempted to isolate the elements of design for definition have reached only partial agreement."

Nevertheless, nearly all agree that the elements of design include line, shape, colour, texture and space et cetera."

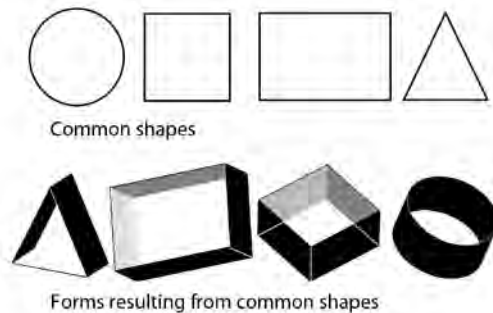
Aiming at acquiring knowledge of how to use elements of design allows designers to examine art in a critical way. In other words, creative artists are able to compose, appreciate art, write and chat about art.

Here is how we can discuss about them:

Form is usually three-dimensional. It has height, width and thickness. Michael et al (2007, 184) say, form is "the underlying structure or composition in a work of art."

Creative designers or artists use form to represent three dimensional artworks on flat surfaces.

Form can be quickly attained by using general shapes found in a cone, cylinder, sphere, pyramid and cube. "Also, some geometric forms are found in nature. For example, honey combs and sea shells." Michael et al (2007, 186) say.



Shape is an element of design, which is artistically represented as an outline or external appearance of an object. It is sometimes difficult to see shape, which is why learners confuse its make-up with form. Some shapes are geometric or regular while others are organic or irregular. Remember, shape can only be formed when two points fully connect.

For instance, in geometry a square is regular and each of its four equal angles measure 90 degrees, when they are fully linked. That is how we start calling it a shape.

Trevallion et al (2003, 16) add, "Smooth, unbroken lines give a longer slimming effect," necessary for geometric shapes. In other words, if a designer makes a sketch of a line for a shape of a justified image, without the lines connecting completely or "joining." The generated construction cannot be considered a shape, but its resemblance. Try out a sketch of a circle, but do not join the bounding lines. What will that shape be? Artists and designers use various types of shapes. They include:

- Abstract shapes
- Organic or irregular shapes
- Geometric or regular shapes

a) Abstract shapes

These are shapes with round corners. They seek to achieve effect and visual structure by using forms, colours and textures. Ashwin (1982, 100) adds, "Abstraction" of shapes "is the process of 'drawing-out' ... the word 'abstraction' is derived from "the Latin word abs-tracta" (draw out). Distinctly, then, artists or designers use abstract shapes to generate conceptual simplicity of a design, which may later form a logo. And distinct innovative and creative designs.

b) Organic or irregular shapes

These are easy to create by drawing objects from nature. For example plants, rocks, animals, clouds, et cetera. They "tend to have curvilinear qualities that suggest growth and movement" (Fichner 2007, 53). Organic shapes are ordinarily irregular hence making it possible—to pleasantly draw them. And they are easy to transform into beautiful designs. Organic shapes control a big proportion of our ordinary design creations.

c) Geometric shapes

These consist of regular shapes. Geometric shapes are usually man-made. They can appear with straight lines and regular lines. Creative artists who use geometric shapes prefer simple forms obtained from basic shapes; they make attractive graphics.

Geometric shapes do not result from natural processes such as birth, although they are mainly created by human beings. That is to say, such shapes largely exist as non-living things. For example a house, a table, a computer, a box and a book.

It is obvious that geometric shapes do not often result into moderate artworks and designs, or they are not easy to precisely sketch by young learners of art and design. Jenkins (1980, 119) offers her advice with this explanation: "children need to be encouraged to draw things in their own way, as they see and understand them."

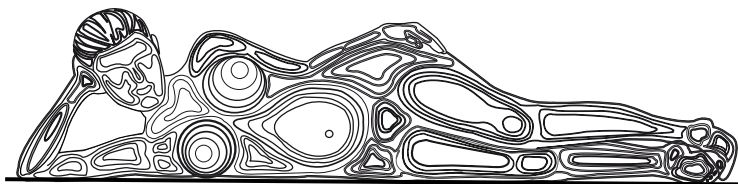
On the other hand, geometric shapes create pleasant decorative designs that are based on regular lines, angles and curves such as those we find on measured geometric forms. "The cube, pyramid and sphere are the three dimensional equivalents of the geometric square, triangle and circle." (Michael et al 2007, 186)

Among geometrical shapes, circles are the only ones with round planes; they are made up of a consistent curvature. The lines of a circle convey less tension than for a rectangle. Yet, circular shapes are mostly considered tuneful and boundless.

Line is defined as a long mark. In art and design, the meaning varies. Some designers explain line as a pattern created by a series of dots or a mark made on a surface to join two or more points. Michael et al (2007, 185) explain, "Line is a path traced by a moving point."

Also, in both science and art, line is understood as a path of a point moving in space. Gombrich (1950, 445) argues, "Line is one of the elements of design commonly used in Chinese's paintings." He continues to say, "Line can be felt as a controlling presence on a hard profile." This tells us that, in art and design a line can be used to pronounce a shape of an object.

A female body illustrated with contour lines



Types of lines

There are very many kinds of lines which designers or artists put to use without noticing. Ashwin (1982, 184) asserts, "depending upon the nature of the medium ... ability and intention of the artist, the resulting line may be broad or narrow, fine or coarse, heavy or light, short or long, constant or viable." Here we see that nearly all subject matter concerning art and design involves the application of a line along with basics of imagination and creativity. Writing and drawing is a good case in point.

Here is a review of some types of lines:

Horizontal line	Zigzag line
Dashed line	Wavy line
Diagonal line	Parallel line
Straight line	Perpendicular line
Curved line	Outline and dotted line

Uses of lines

In Silvester's (2000, 5) *speed and motion*: "every artist has to work with great rapidity in order to retain ... continuity of the lines, without which the results would be disappointing."

Obviously, then, line is a very important element of design. It reveals movement and activity in all our creative designs. Thus, Picasso depicted distinctive uses of lines in his paintings of *The Weeping Woman* and the *Guernica*. To a large extent, we can judge the artists' creative expressions by putting together different ways lines were set to execute a particular design.

Here is a brief analysis about uses of lines:

- Lines are used to mould shapes.
- Different kinds of lines can be used to generate a sketch.
- Lines can be used to convey texture and shades.
- A line can reveal areas of emphasis on a design.
- Lines determine shapes.

Dots are small round spots or marks. They are elements of design. And, they exist in different forms colour or texture on various surfaces. Lupton et al (2008, 186) offer a rational explanation: "Dots and stripes interact to form grids."

Here are some other ways dots can be used:

- Dots can be used to create a line
- Different sizes of dots can project movement
- Dot-strokes can form textures in visual direction
- Dots can also be used to depict distance within a perspective.

How newspapers use dots

A closer look at newspaper photographs reveals a range of shades made up of combinations of black or coloured dots. In the dark areas, dots are large and they are combined that almost none of the white paper shows through. In lighter areas of a photograph dots are tiny and they are surrounded by large expanses of white.

The continuously varying shades of colour dots in a photograph convert into a pattern of different-sizes (of dots) with a method known as halftone. Most newspapers use a fairly loose texture of dots to reproduce pictures on standard newsprint paper.

If dots are seen from a (monitor) screen, it may portray them in 2 to 3 lines per millimetre and when it comes out of the printer the attained results will show the same number of dots per millimetre.

The whole idea about dots and the way they form photographs is almost identical to what is known as dpi (dot per inch)—induced by scanners and printers.

Dpi defines the levels of intensity, sharpness—from a computer-procreated image. Certainly, the display screen measures the number of pixels across and down; to represent the actual resulting effect by using dots.



Inset: halftone dots obtained from a section of smooth tones on a shoe surface.

Mass, Volume and Space

These are elements of three dimensional art and design such as sculpture. In Mujjuzi's (2010, 113) article about *Exploration of organic materials for sculpture production*, he explains how "... ring wires, binding wires and wire mesh" can be used to generate "a solid body with mass and volume" for a three dimensional shape from plant materials. Distinctly, then, volume gives the impression of height, length, width and depth on three dimensional forms. Wood or stone disclose mass because they exist in solid form, while a snail shell appears as space volume.

Michael et al (2007, 186) are more enlightening: "Mass refers to volume or bulk of an object in a work of art and space refers to the areas surrounded by mass." Surely, a creative artist can use the perception of form to create three-dimensional objects on two-dimensional surfaces by using shadows or tones.

Space is an important element of art and design. Two dimensional artists mainly refer to real white space as breathing-space. Such space is predominantly used on lay-outs. Space reveals depth in a receding background. In Trevallion et al's (2003, 18) *Design and Technology*; "Space is an element, which when arranged according to the design principles creates unity." It also helps other aspects in a design to exist.

Types of spaces

Creative artists execute artworks from more than two types of spaces. Landa (2000, 76) believes, "Understanding positive and negative space is crucial to designing ...". Here are some of the ways in which negative and positive space can provide scope for creative designers to execute design artworks:

- Negative space** produces a silhouette of a contrasting image. That is to say, a negative space is the unoccupied area. It lies within the inhabited shapes of spaces.
- Positive space** is usually found in areas that are occupied by an image. It dominates our sense of sight on a design. On three-dimensional artworks like sculpture, positive spaces functions together with negative spaces to cause a worthwhile display of forms.

Texture is the roughness and smoothness of a surface. And it is also made up of other surface qualities known as visual and tactile textures.

Texture is an element of design, which can be used to describe “qualities of surfaces” (Michael et al 2007, 189). The surface may be *rough, smooth, hard, soft, shiny* and *dull*. In other words, creative artists use texture to depict variety in a design of a desired artwork; they make attempts of imitating surfaces by decorating artworks and designs with texture.

Types of texture

As Trevallion et al (2003) have remarked; “Texture can be seen with the eye or felt by touch.” Accordingly, texture can be singled out by touch and by sight on various surfaces. Here is how:

- a) **Tactile texture** (actual-3D); artists experience this type of texture by touching the surfaces directly with hands, or by the body—making contact with an object. This type of texture is real.
- b) **Visual texture** is sometimes referred to as implied texture. It is effortlessly realised by our sense of sight. Fichner-Rathus (2007) adds, “the actual texture of a stone sculpture may be hard ... cold to the touch, for example, but the stone can be used to create the illusion of flesh, soft and warm” textures. Consequently, visual texture can be created on two-dimensional surfaces by using colours and values of patterns, which may imply a smooth or rough surface by sketching with a pencil or pen.

Uses of texture

As we have already discussed some importance of texture—how it manifests on objects and designs in different ways.

Here are some uses of texture:

- Texture can be used to show distance in a design.
- Texture can be used to express the true quality of a shape by using varied intensities of dull or soft patterns on individual parts.
- Texture can be used to suggest as a desirable meaning in a work of art. In some sculpture themes, rough texture conveys aggression or agitation.

Value is an element of art and design, which is associated with proportionate lightness or darkness of colours. Michael et al. (2007, 186) define value as “... the degree of darkness or lightness of a hue—the lighter a colour, the higher its value; the darker the colour, the lower its value.” In other words, graphic artists and painters create value by mixing a hue of black to make a *shade*, or white to obtain a *tint*. Whereby, the value of black shows colours of less intensity and white value appears as enhanced.

Value is one of the basic qualities of Rembrandt's “*chiaroscuro*” paintings. Moreover, *chiaroscuro* is a word that comes from two Italian words; *chiaro* to mean **light** and *scuro*—referring to **dark**. In a different way, we need to be mindful of Jung's *Seeing colour* (2004, 37) that “black and white are not intended as colours, rather their black and white are representative of the presence or absence of light or colour.” That is why, different from one another, artists propose “black and white are not colours.”

“**Colour** is a powerful element” of design Michael et al. (2007, 189) note. It differs from one grade to another on various surface adaptations.

Jung (2004, 80) asserts, “light plays on objects; this renders them visible and reveals their colour.” Clearly, then, we become aware of colour because of light. That is to say, where there is darkness (or black). It is not possible to see colour. In contrast, the powder colours or “pigmentary colours are derived from a non-specifiable number of powders which are found naturally or chemically produced and which are ground coarsely or finely.” (Jung 2004, 105)

Thus, the colouring matter of pigments that we use as designers during painting and printing are known as pigments. They are from mixtures of subtractive colours. Other basic colour harmonies are created from *complementary colours*. These face directly—opposite each other on a colour wheel. Eiseman (2003, 3) informs us that “green is never greener than when it is positioned next to red.” Obviously, then, if green and red colours are painted adjacently, or if they are positioned near each other, they react with a glow or a luminous gleam.

Whereas, by painting a picture in varying tones of only one colour, the end results of the artwork shall indicate *monochrome colours*.

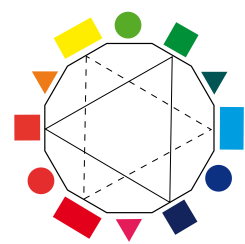
Jung (2004, 139) remarks, "Of course a colour can stand on its own as well ... Such colour contexts ... are known from monochrome painting."

Then again, as we continue to study about colours, on a colour wheel, we will find harmonious colours that are also known as *analogous colours*; usually, such colours are positioned beside each other, for instance blue, blue-green, blue violet. And they are pleasant to look at because they appear as if they belong in the same family.

Artists become acquainted with colours when they devote attention—to interacting with a colour wheel. It works as a guide, which helps creative artists to understand colours and how they relate to one another.

In accordance with Michael et al.'s (2006, 187-188) remark, "the purpose of a colour wheel is to expand students understanding of colour relationships and to assist them in developing skills of painting and drawing with colours." That is to say, by understanding the principles of a colour wheel, the learner shall be able to develop skills of painting and he or she will discover the absolute importance of using each colour.

On a **colour wheel** learners can annotate the differences between each colour. Jenkins (1980, 142) asserts, "Encourage young children to name colours. Enjoy with them the delight in discovering that blue and red make purple, red and yellow make orange, red and white make pink, black and white make grey and red, yellow and blue make brown." We can conclude from this that, a colour wheel is necessary for enthusiastic creative artists for the time of mixing colours; from dry powdered mixes of oil



- Secondary colours
- Tertiary colours
- △ Primary colours
- ☆ This shape provides a distinction of primary and secondary colours

paints, watercolour, colouring dyes and inks or any another medium consisting (paint) pigment.

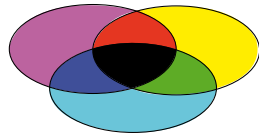
Accordingly, we can use a colour wheel to identify different essential colours from their separate groups. For instance:

1. **Primary colours** cannot be obtained by mixing any other colours although all other colours can be made or mixed out of them. They include red, blue and yellow.
2. **Secondary colours** are created by mixing two primary colours: For example, by mixing blue and red. The resulting colour will be purple.
3. **Intermediate (tertiary) colours** are made with equal mixtures of primary colours, added with—either one secondary colour adjacent—on a colour wheel. Such colours result from a mix of two secondary colours. "Mixing primary and secondary colours may be more difficult for children to achieve." Thus, they should be advised to make a review of each colour group before choosing a colour for any design plan. Equally, "blues and greens are usually identified as cool and receding colours. The movement forward or backward of any colour, however, depends entirely on its relationship to the surrounding hues." (Michael et al 2007, 188)

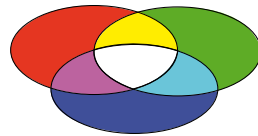
Systems of colour

There are two major systems of colour; subtractive and additive. Here is a review about each colour:

- a) **Subtractive colours** are to a certain extent common within the art and design world. Bellamy (2004, 14) laments, "... as more subtractive hues are mixed, the mix becomes darker ... colours seen on the surface of physical objects, such as paper, work in different ways to those seen in light." By their correct names, subtractive primary colours include cyan, magenta and yellow. See Computer aided printing, Chapter Five.
- b) **Additive colours** apply to radiant (white) light made by sunlight. Jung (2004, 97) defines additive colours as "optical." In his explanations, "the additive mixing of the three optical primary colours—produces the sensation of colourless light." The list of such colours contains "blue yellow and red."



Subtractive colours (paint)



Additive colours (light)

Uses of colours and their symbolism

Colours are used to represent various meaningful design attributes as well as learning theories in so many remarkable ways. According to Cheshire (2006, 26), "scientists have shown that yellow, orange and red can make people feel hungry. Meanwhile, blues and purples can turn people away from eating." In "buffet restaurants," blue colouring is used on walls in an attempt to reduce food quantities eaten, as a means of saving "money." In other words, colour can cause good and bad disruptions. Without colour it would be strenuous to learn about people's customs.

Take an example of seeing a person in your community dressed up in full white attire, or black ministering at a worship gathering. Or, out of the ordinary, seeing a person dressed up in a white outfit providing care to accident and victims of a natural disaster. Who would that person be?

Here is how Eiseman (2003) explains colour uses:

- Colour connects peoples' ways of life. For instance, red colours are viewed as *engaging, active* and *exciting*, while the blues and greens are believed to be *gentle, calm* and *passive*.
- Colour can be used to describe a shape.
- Colour can as well make false impressions of depth in space by using tints.

Lidwell et al. (2010, 48) has a good conclusion about *colour and symbolism*: "There is no substantive evidence supporting general effects of colour on emotion or mood. Similarly, there is no universal symbolism for different colours—different cultures attach different meanings to colours. Therefore, verify the meaning of colours and colour combinations for particular target audiences prior to use."

A brief analysis about colours can be seen from Rohrer (2010) in the online article, *Incredible Art Department*; it discusses different kinds of colours and what they may symbolise as the table here below suggests:

Yellow	This colour can be used to endorse <i>daylight, jubilation, cheerful, humanity, brain power, treasure, assurance, growth, cowardice, sickness in isolation, risk, fraud, faulty, desire, starve, communal</i> . Cheshire (2006, 27) reminds us "... yellow describes a coward" with regard to humans. Thus, "... we associate its characteristics with moods and emotions."
Blue	Is a colour known for <i>maleness, calm, trust, wet, frozen water, allegiance, reliable, washed, globe, high-tech, unhappiness, sky, smartness, duty, decency, law and order, union, balance and quiet</i> . In many worshipping cultures, blue is a very significant colour. Some designers presume that blue can provide relief for those who are suffering. In Eiseman's (2003, 77) <i>The colour answer book</i> : Blue "colour has always been significant in religious symbolism."
Red	Is a colour, which may be used to attain desired meanings for circumstances like <i>toughness, life, flames, love, management, ability, hazard, lifeblood, warfare, temper, rebellion, sexual, joy, swiftness, warm, self-important, determination, extremist, hostile, stop</i> and <i>esteem</i> . In other words, red is classified as warm, shouting and aggressive. It is probably the reason as to why we commonly find it on <i>the International Movement of the Red Cross and the Red Crescent</i> . In agreement with Lawrence's (2010, 157) remarks, "the reassuring Red Cross was ... nevertheless, a colour often associated to something malign." This tells us that red colour can still be used to represent scathing situations in a design if the creative artist wanted to represent a hurtful experience.

Rohrer (2010) offers another reasonable explanation about colour meanings on traffic lights: "*Red to mean stop. Yellow indicates caution, attentiveness, alertness and Green signifies go.*" We can conclude from this that colour is influential to our aesthetic world and the society in general as creative artists. It can be used to present combinations of identities, communications as well as societal interpretations.

Principles of design

Principles of design enable artists to organise and arrange compositions of artworks in aesthetically pleasing ways. Jirousek (1995) defines, “principles as concepts used to organise or arrange the structural elements of a design.”

Here is a brief analysis of how principles of design can be cleverly put to use by creative artists:

Contrast is a principle of design used to create differences between tones, colours, texture, images—within a work of art. Bellamy (2004, 52) is more enlightening: “A design using full chroma colours will have emphasis on hue contrast, where as weak chroma throughout will neutralise contrast.”

In Vincent van Gogh's painting; *Wheat fields with Ravens*, high contrasts of yellow were used to bring forward wheat fields in an easily noticeable way against a dark blue sky.

Emphasis is a principle of design used by creative artists or designers in their art works to indicate parts of a design, which—express exceptional importance. It can be done by using colours, shapes, textures as well as other basic elements of design to make a particular section of the artwork noticeable or prominent.

Occasionally, emphasis happens in an area chosen to reveal a *centre of interest* or a *focus point* of a successful design.

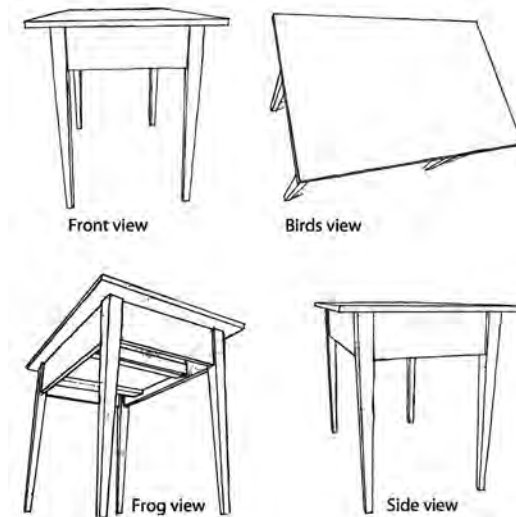
Perspective is a point of view that appears—to enlarge or extend from the actual size into space. It is the optical illusion/effect of distance—in the right impressions of height, width and depth.

Other creative artists explain perspective as an angle of vision depicting **foreshortening**. Ashwin (1982, 184) notes, “Fore shortening” is the “optical shortening of forms when viewed end on.” Hence, the closer you get towards the object, the greater the effect of the angle of vision during foreshortening. *Leonardo da Vinci* painted the *Last supper*. It shows perspective using converging lines on Christ.

Artistic objects depicting perspective appear in such a way that—from the position of view, objects appear large and they disappear—turn into small and smaller delineations as they recede from the viewer's eyes on a two dimensional surface.

Ashwin (1982, 97) asserts, “our ability to interpret and appreciate foreshortened drawings is to some extent dependent upon the circumstances of a prevailing ground ...” Obviously, then, creative artists or learners should be encouraged to rely on existing ground level to successfully draw and achieve depth on flat surfaces by using perspective in the following ways:

- a. **Standpoint** is a perspective, which operates properly with linear. Digolo & Mazrui (1988, 23) assert, “in linear perspective, the objects in the foreground are drawn bigger and distinct ... in the middle ground, objects become smaller and less distinct while ... in the background” they get “smaller and only faintly suggested.” That is to say, to sketch a standpoint perspective. It is important to rely on parallel lines converging to a single vanishing point of an object.
- b. **Birds-eye/view** is a level of perspective that is translated as a general view seen from above. “Looking down ward” (Lidwell et al. 2010, 39). Bird's eye is also referred to as a three-point perspective. This type of perspective is typical for portraying maps and landscapes. To sketch birds view scenes creative artists make use of high grounds.



Tables showing various inclinations of perspective

c. **Frog view** is a type of perspective where images or objects appear as—from bottom or ground as large and smaller at the top—further up. Lidwell et al (2010, 39) prefer a different explanation for frog view perspective: it is a “worms-eye view (looking upward).” Sketching from a slanted mirror can successfully guide the creative artist to easily attain pictures of frog view perspective.

d. **Side view perspective** is ordinarily depicted from a single side—of an object, or it is seen from one side. Pentak & Lauer (2008, 216) explain, “The Egyptians solved this problem by combining a side view of the head with a front view of the eye.” From this we can understand that side view perspective is at some point portrayed with one or two views on either left or right side on two-dimensional surfaces.

Balance is a principle of design, necessary for composing visual weight in an artwork or design. Michael et al (2007, 268) observe, “In terms of balance ... the art object must express the artist’s intelligent decisions.” Indeed, through balance creative artists attain stability of objects in their designs. Also, balance makes artistic designs to appear firm in correct proportions.

Types of balance

Ultimately, creative artists can effortlessly achieve balance in a design by using arrangement aspects like *symmetry*, *radial*, *asymmetrical* as well as *approximates*. In Lidwell et al’s (2010, 94) *Fibonacci Sequence*; “such ... are considered aesthetic because people tend to find them more aesthetic ...”

Here is a brief analysis about each one of them:

a. **Symmetrical balance (formal)** is sometimes described as passive balance. For the reason that it contains an imaginary central vertical line also known as the axis. Symmetrical balances display an uncommunicative line that divides artistic arrangements in two proportional parts. It is a characteristic of almost all nature objects. For example mammals, birds and some types on leaves as well as insects.

Lidwell et al (2010, 144) inform us “symmetrical compositions are perceived as simpler and more stable.” Yet, such designs are less interesting.



Tea time.
A still life artwork arranged in a stable—balanced compositional way

b. **Asymmetrical balance** is also referred to as *informal balance* or *active balance*. This type of balance can be made to happen by arranging contrasting objects of equal visual weight. Try to take notice of a person who is standing straight with one hand holding a heavy bag. The side with great weight will stoop (bend).

c. **Radial balance** displays all design aspects—starting from a centre point and then spreads them towards the (circumference) enclosing boundary in a composition or a design. Lidwell et al (2010, 34) remark, “people and things with round features are ... perceived as helpless, honest and innocent.” Remarkably, radial balance is also a feature of the natural world. See shapes of flowers.

d. **Approximate symmetry** consists of necessary appeals required by most designers and artists. Some of the compositions attained with approximate symmetry display two portions as not exactly the same. For example, with a closer look at the two pages of this book, as it faces you. The pages display a precise approximate symmetry. “Therefore, in many works of art, the symmetry is approximate rather than exact” Fichner-Rathus (2007) notes.

Rhythm and movement happens by creating actions or visual intervals on distinguished elements of design like colour, shapes and texture. According to Michael et al. (2007, 191), “artists use rhythm to give movement to the manner in which our eyes move over a work of art to control the pace at which our gaze travels” in harmonious sequences.

Play.
A painting with
proposing actions
of rhythm and
movement

Size: 25cm × 30cm



Doodling artists mainly use rhythm to draw befittingly. Ashwin (1982, 81) discerns this point: “Doodling consists of more or less automatic drawing activities.” From this, we can understand that rhythm and movement can be achieved by making drawings or designs showing random lines for the time of sketching.

At the final analysis about rhythm and movement, make a critical observation of a dancer enchanted or captivated with playing music to ascertain justified moments of expressing rhythm and movement.

How to create movement in a design

Creative artists progressively attain movement in a work of art by using different methods.

Here is a table put forward by Bernard (2010) in his book about *The principle of movement*:

By using actions	Movement can be created by indicating actions in a design. Actions include <i>running</i> , <i>walking</i> as well as <i>performing</i> . Creative artists use actions that display charming gestures, not static/doing nothing. That is to say, with-out actions, designs appear less desirable.
Using dominance	Artists especially painters use dominance to render monotony. This also makes some aspects of a design to appear in supremacy over others. Try this dominance test: cover your face with both—backsides of your two hands and then peep through the thumbs' space with one eye. Ask friends to say what they can see, by relating their assertion to dominance.

By repetition	Movement happens in a design that contains repeating <i>actions of colours, shapes, spaces, lines</i> and sometimes with <i>textures</i> . Too much repeated occurrences in a design must be done with careful controls to avoid monotony.
By creating rhythm	Regular use of movement causes harmonious sequences in a design. For example, <i>by using similar shapes, a design may indicate frequent variations of regularly recurring series of patterns or elements</i> . Artworks embraced with rhythm can easily be incorporated with charming gestures that are artistically planned. For example on motifs designed to construct repeat patterns.

How to create dominance in a design

After making a careful analysis of the basic design aspects in the table display concerning various ways of creating movement in a design, here is another look at how dominance can be used in a design:

- By using contrasts of large forms with small ones to add interest.
- Working with thick lines against delicate lines to achieve outright intensity and depth.
- Engaging bright colours against few dull colours to control monotony.
- Making groups of important parts in a design or composition to stand out.
- Using elements of design, which are less expected in a design or artwork.

Proportion is a principle of design used for describing scale and its consistent relationship of sizes on objects, or parts of the body. A design indicating proportion shall display parts or shapes corresponding—in agreement with the whole.

On layouts, proportions can be attained with appropriate arrangements of texts against illustrations and during sketching of human figures, proportion accounts for correct balance or harmony of body parts—their measurements and characteristics. For instance on normal humans, if a nose or ears do not have a close similarity to match or agree in their exact manifestations of actual sizes. Then, those parts are out of proportion.

However, different creative artists and designers go beyond some official recommendations of size and actual dimensions. That is to say, during *cartoon* creation and sketching of *abstract art*. Artworks and designs are feasibly created by “exaggerating proportions.” (Taylor 2005, 31)

In Padovan's (1999) *Proportion: science, philosophy, architecture*; “... once we appreciate this intimate connection between proportion and scale, the central importance of proportion in design becomes apparent.” Here we see that proportion is essential in art and design as well as other fields of design.

A case in point, *Leonardo da Vinci* found proportion everywhere not only in numbers and measurements but also in sounds, weight and intervals of time.

Harmony is a principle of design that forms a compatibility of arrangements, which result into pleasing relationships. Pentak & Lauer (2008, 289) define “harmony” as “the pleasing combination of parts that make up a whole combination.” This also tells us that whenever a design or artwork shows effective corresponding placements—it has attained visual harmony. If an artwork or design has used harmony then it will have proper placements of existing objects.

Unity is a state of forming a pleasing whole—of the design. Michael et al (2007, 192) say, “The three aspects of design that contribute to the unity of a work of art are the rhythms, the balances and the proportion ...” As a consequence of this, it is possible to achieve unity in a design by selecting the right visual elements, which fit well with the appropriate principles and elements of design.

How to create unity

For this purpose a careful analysis and investigation of principles of design shows repetition—is the major principle necessary for creating unity. This is typical with flowers.

Unity can also be creatively unveiled by using design attributes such as *alignment*, *continuity*, *similarity*, *relationship* and *proximity* et-cetera.

We can study more about unity by using a table on the next page to analyse each relevancy as explained by Bernard's (2010) *Lesson number 9; The principle of unity*:

Alignment	Assists creative artists to position different design components (texts versus illustrations) in straight orderly arrangements. It guides a designer to find a desired arrangement of things according to relative importance.
Variety	A good design embraces variety by putting together one or more elements of design, to generate interest. That is to say, too much unity without variety is boring and too much variation without unity is chaotic.
Proximity	Can be achieved by putting visual elements close to one another—they are perceived as being related or belonging together, those which are farther apart are considered less related. Graphic designers represent proximity by showing associated type near each other to fit in with a suitably composed layout.
Similarity	Presents unity by ways of repeating colours, shapes, value, textures and lines to form a visual relationship between elements. Pentak & Lauer (2008, 28) say, “the harmonious unity of the shapes” can creatively be “reinforced by a similarity of colour.”
Continuity	Brings about stability and consistence in a design. For example in graphic design continuity plays an important role of consolidating a brand manifestation by using a precise or identifiable colours, typefaces and layouts. Other elements of design which can cause the continuity in a design are line, form, colour and texture

Ultimately, then, elements and principles of design should be put at utmost consideration in every task of the artist's design plan.

Michael (2006, 185) reminds us, “When elements interact, they make up principles.”

We can conclude from this that elements and principles of design account for various achievable goals of learning art and design. And indeed, **history of art and art appreciation** gives credence to elements and principles of design. They guide artists to discuss, conduct critiques as well as making research about art and design.

Exercise

1. By associating each element of design to one principle of design, make a suitable sketch or image inside each space of a box provided by the table below, in your art book:

	Movement	Emphasis	Patterns	Rhythm
Line				
Shape				
Texture				
Dots				
Colour				

CHAPTER THREE

Drawing

Drawing is a two dimensional approach of executing representative artistic images or objects on a two-dimensional surface by ways of sketching—using a pencil, pen, chalk as well as a brush.

It accounts for a number of courses relating to drawing. For instance *still life, nature, portraits, as well as human figure drawing*.

In brief, the history of drawing starts from the human desire to depict—their surroundings in images. As it is evident, we have read many stories about prehistoric cave drawings and other artworks created by the early man.

In terms of drawing visual artworks Micklewright (2005, 154) mentions, “there are plenty of alternatives which can be used to gain basic visual skills. Plants, shells, bones, buildings, machines, still-life groups, dolls, landscapes and of course mirrors.” All these can “provide a source of visual analysis and discovery” for the learner—aiming at obtaining skills of drawing through critical observation.

Individual and separate types of preliminary drawings can be sketched for use in various branches of industrial art and design courses like *painting, sculpture, graphic design, weaving, jewellery making, pottery and mosaics along with other research-based themes of art*, to fulfil specific learning aims and objectives.

Art and design appraisers, assessors or examiners make use of drawing as a decisive factor to test devoted students at the trial stage—to draw or sketch what would be feasible within the limits of their individual skills. Hoover (1967) discerns this point: “The good drawing is one in which the child puts something of himself. It is an honest original idea of his/her own.”

On the other hand, visiting museums, industries, workshops, galleries and art exhibitions are among the numerous ideal places from which creative artists can go to find sources of inspirations that may result into powerful drawings.

Moreover, a great deal of drawing skills and techniques can successfully be put into active process by using basic foundation materials, tools and equipment of different kinds by individual creative artists.

Here is how Jenkins (1980, 119) categorises drawing tools, surfaces and instruments:

Tools	Nails, fingers, sticks, toothpick, straws, pencils, pens (quill, reed from bamboo, ball-point pen, felt-tip), charcoal, pastel, chalk (brick clay, soap stone powder), crayons, inks (iron-gall, carbon, Indian or Chinese, bistre) feathers.
Surfaces	Sand or (terra firma) ground, steamed mirrors, banana leaf surface, fogged window, packed clay or soil, cloth, wood, aluminium foil, a sketch board, blackboard and a slate.
Papers	Sheets and rolls of newsprint, paper plates and pad-sheets of blank papers fastened together at one edge, sandpaper, wax paper, crepe paper, wrapping paper towels, tracing paper, graph paper, sketchbook and books.

We also have to reassess Trowell's (1951, 10) contention; "... in some schools they cannot teach because they have no money to buy paints, brushes and paper."

This tells us that, as creative artists we can assent to low-end found objects that are easy to find from our local surrounding (around us) in order to execute pre planned drawings. Very many types of drawing materials are easy to obtain from our natural surroundings and they are a good starting point, where there is scarcity.

Kyeyune (2003, 242) adds, "it is by working with found objects ... that art teaching will help to stimulate or explore human condition" before running to use those other well-liked and highly priced drawing materials. Because of that, learners should always be encouraged to discover new innovative methods of using local materials to produce powerful artworks.

Here are some highlights of few drawing tools, materials and equipment:

- a) Drawing pencils** are produced in categories and assortments of the most frequently requested grades such as *hard* or *soft*. They both consist of 9B, 8B, 7B, 6B, 5B, 4B, 3B, 2B, B, HB, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 9H.

Sometimes drawing pencils are produced in types like "designer 6B to 4H." As well as "medium and technical B to 9H" these "are hard." (Elizabeth, 2010)

B pencil	Is the <i>soft</i> type. It makes strong lines
H pencil	Is the <i>hardest</i> . It makes lighter lines
H and HB pencils	These are found in the middle range category

Graphite drawing pencils can be used to accomplish nearly all types of drawing techniques and they can be used with different artistic media commonly known as *mixed-media*. Pencils are oftentimes used to draw, to add details of outlines, make crosshatching textual lines; with their big range of leads. In general, drawing pencils agreeably work well with mixed (dry) media of pastels and charcoal as well as wet media such as *watercolour* and *ink washes*.

- b) A sketchbook** is an essential drawing support. It is made up of clean plain pages on which rough or unfinished drawings and sometimes paintings are planned or sketched. There is no specified size required for good sketchbooks. Yet, a sketchbook can be made from any plain clean types of papers, which may sometimes be thrown (away papers).

Jenkins (1980, 129) remarks, "many artists and teachers feel that a child should start early to" plan compositions and colour schemes in "a sketchbook ... as a record of not only what he or she sees, but feels as well." Undeniably, then, sketchbooks are essential for almost all artistic courses. Their fundamental purpose is to support the artist's creative process.

- c) A drawing board** is a very important support device used by nearly all-outdoor drawing artists. A paper or a canvas can be spread and/or fastened on the surface of a drawing board to give comfort during drawing and for the time of executing a painting artwork. Drawing boards are most often rectangular—in makeup shapes fit for varying paper sizes. During drawing, the artist mounts a drawing board on an easel. Sizeable drawing boards can be made out of a hard paper or plywood. To a large extent, various kinds of drawing boards are made out of easy to carry materials such as hard paperboard.

An **easel**.
It is a necessary equipment for the time of drawing and painting



- d) **Charcoal** is good and it is an abundant medium used for drawing. It can be found everywhere around us, especially from burnt wood or where bonfire has been extinguished. Its sizes and strength varies according to the type of burnt wood or sticks. In spite of that, today it is possible to buy some special types of charcoal from shops for sketching.
- e) **Drawing-chalk** is well distinguished from chalk used on chalkboards. It contains a binding material, which makes it stick fast on papers. Buser (2006, 156) says, "chalk can be rubbed and blended, it is very permanent—natural chalk makes soft, fuzzy lines ... not very dark and chalk lines have transparency." Such drawing chalk is not meant for chalkboard use, because it is difficult or impossible to erase completely. On the other hand, chalk used for drawing is in general produced in very many types of colours. According to Buser (2006, 156) "... red, white and black chalks" can be made out of "earth and then cut into sticks. Warm red or blood red is derived from hematite (iron ore); natural black chalk is from shale and a mixture of clay and carbon." Here we see that locally the learner can as well make his/her drawing chalk. Meanwhile, as the learning process continues to progress many more chalk types such as pastel chalk, pastel crayons and chalk crayons will add to your list of drawing tools and materials. In Constable's (1995, 41) *The Painters Workshop*: "As a material, pastel is to be distinguished from the harder chalk crayons, much used by artists for drawing, in which the pigment is mixed with an oil or wax and moulded into sticks. Confusion is apt to arise, since pastel is sometimes called crayon."
- f) **An eraser** is a rubber or plastic substance used for rubbing away-unwanted pencil markings created on a paper during drawing. Nonetheless, very competent drawing artists mention directly that a rubber is impractical. "As a learner you are expected to adopt a problem solving approach." (Digolo et al. 1988, 50) For the reason that unnecessary use of erasers may put an end to the learner's imminent skill, competence and creativity. Ashwin (1982, 89) notes, "many teachers of the old school used to forbid the use of the eraser on the principle that, drawing should be additive."

Obviously, then, using an eraser for a beginning artist may not be of any significant importance. Apart from describing the learner as a timid artists with low self-confidence.

Drawing nature and still life

The two areas of drawing; nature and still life necessitate different approaches intend to convey a successful artistic work or design. Ssegantebuka (2003, 16) reminds us that "still life and nature studies should be visualised in terms of their forms, shape, texture and tonal values." Clearly, then, drawing nature and still life must present learning aims like; acquiring skills of observation as well as learning to sketch contrasting shapes.

Nature drawing regards the practical study of objects in the physical world. These may be living organisms and their environments—for example *plants, animals, landscapes, human beings* and very many other aspects of God's creations. Whereas, *still life* is depicted by *sketching inanimate—not alive objects*, which are for the most part known to be manmade. Occasionally, in drawing; nature and still life studies are combined.

Some educationists propose that nearly all learners who draw nature shapes easily accomplish their drawing tasks for the reason that set objects or specimen are frequently remarked as irregular shapes.

In Lidwell et al.'s (2010, 36) *biophilia effect*; "... children who experienced the greatest increase in nature views from their windows made the greatest gains in standard tests ... " In other words, from nature study or studies, learners sketch more in a satisfactory way.

Without going beyond the scope of our subject matter; from nature drawing learners have a greater potential of reinventing designs necessary for painting, making graphic design artworks and other useful study artworks.

According to Wood (1994, 12), "Never attempt to draw such a perfect and neat specimen that it loses its naturalness. None of nature is "perfect," and to draw it perfectly denies its inherent nature."

This tells us that during drawing, even with less, the artist can provide absolute interpretation or meaning of the subject matter required.

Nature drawing
arranged to
show a filled up
basket carrying
bananas and eggs

Materials: Pencil
on A4 paper



Thus, concentrate on reaching the goals of specified aims and objectives as well as the theme.

In the meantime, **nature drawings of detailed** plants, fruits or flowers sketched from within or inside the classroom building, should be drawn quickly before they get dry and shrivelled. Some types of plants, leaves, or flowers become weary or get limped because of heat, after losing water. For that reason, wrap a damp or a moist paper towel around the base of the plant—ending up—at its lower stem for the plant to live for some time.

Still life drawing is sometimes strenuous to sketch by the majority of learners for the reason that set objects usually contain pronounced and unmistakable geometrical forms. Vebell et al (2005, 206) prefers a different argument: "Rendering the volume is much easier on still life if there is strong direct light on the subject." Clearly, then, placing still life objects near light can effectively help learners to manage some strenuous problems of drawing still life.

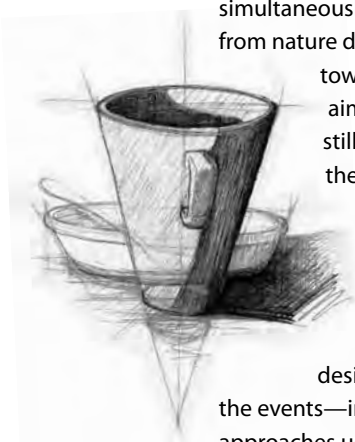
Kyeyune (2003, 80) laments, "in Trowels art education she did not promote drawing or painting still-life, "probably" because still life—based subjects lacked the capacity to insinuate images that dramatized rural life." Painstakingly, a still life drawing should have groups of shapes necessary for emphasising composition and form within the arrangement—as a whole, to make it interesting during drawing.

Apart from that, for the time of setting (arranging) tasks meant for still life drawing, arrangements of set objects can simultaneously be combined with other items—borrowed from nature drawing to affect function or set the scene towards the targets of provided planned learning aims. Distinct creative artists combine nature and still life to bring about contrasts. As an example; the artist can arrange an uprooted banana plant, (nature) placed side by side, with a garden tool (still life) in a story telling manner. Then, draw.

According to Lidwell et al (2010, 230), "When story telling is successfully employed in a design, an audience will experience and recall the events—in a personal way." This should be one of the approaches used to arrange still life drawing tasks.

Still life drawing
showing a cup positioned near a receding spoon and a plate.

Materials: Pencil on A4 paper



On the other hand, for all future time—a creative artist has got to keep a sketchbook and a pencil with him or her. Some profound ideas of drawing are not permanent, they come instantly and go. For example, finding a goat stealing food not well kept from a hole, which it has discovered on an old granary. Or, mother duck feeding her ducklings. It is as well important to consider, expression and freedom of working during drawing. This can effortlessly be achieved with a *free hand* drawing technique. Ashwin (1982, 102) remarks, "the method permits the artist to work at arm's length, standing back from the drawing and obtaining a better view of the image as it develops."

For that reason, free hand is a very important skill for all artists to learn, owing to the fact that sketching large images on limited space of a provided surface shall be easy—by using artful lines or outlines of curves, bends and meanders to execute a drawing artwork.

Landscapes

Landscapes are closely connected with nature drawing and painting. They can be sketched easily from outdoor by using mental judgement in the manner of; the further you go the lighter the tones will become and the vice versa.

It is as well necessary to understand that the source of light provides the underlying support, which determines the placement of dark and light tones in such scenery drawings. To choose a landscape spot necessary for executing a drawing artwork. It is essential to analyse or study the levels of darkness and light (value and contrast), from the *foreground*, *middle ground* and *background* of the area.

In the opinion of Sullivan (2004, 231), "... as landscape elements recede into the background they become lighter. Embellish the foreground, middle ground and background with distinctive line weights." The effects created by the degree of lightness and darkness between parts—on a landscape, can as well be achieved by using colours in different tones, textures, perspective and a focus point. That is to say, "things at a distance appear fuzzy and out of focus even to the sharpest eyes ..." Buser (2006, 120) notes.

Therefore, observe and make a study of the most distinguishable features that you are able to see in the foreground, middle ground and at the background.

A lakeside landscape showing three sections; the background, middle ground and the foreground



Accordingly, learners should be encouraged to draw a number of sketches with considerable emphasis laid on various outdoor scenes in order to improve their skills of drawing landscapes.

Besides, the process of drawing landscapes—takes several days or hours to complete. Consequently, it is important to learn how to sketch quickly and catch the right moments; by representing parts which are worth the time. Identify a scenery, which will insinuate viewers. “People tend to prefer Savannah-like environments—open areas, scattered trees, water and uniform grassiness—to other natural environments.” (Lidwell et al. 2010, 212)

To sum up, Sullivan (2004, 7) asserts, “Landscape drawing is not the reproduction of nature. It is an expression of the emotions, sensations and feelings that the landscape impresses on the artist.” Thus, we draw landscapes to “understand” them and to visualise them in a new way ...” As opposed to taking photographs.

Drawing from imagination

In the words of Dodson (2006, 6), “drawing with imagination takes a broad look at ... fantasy images. It can mean distorting, abstracting or simply doodling. And drawing from memory—involves making creative choices about the things you choose to draw.” That is to say, by *drawing from memory* the artist recalls some real images captured by the brain long-ago, some of them can be included in the sketch. Other than that, *drawing from imagination* has got a bearing on untrue or invention stories, which may be fictitious.

The Uganda Advanced Certificate of Education, Regulations and Syllabuses, 2009 – 2012 (Uganda National Examinations

Board, 2008, 223) is full of excellent expectations: It provides educative awareness and expectations to learners who take on tasks concerning imaginative composition that they are supposed “to discover and effectively portray visually, in pictorial form the true subject of the set topic.” Also, learners are expected to show they're understanding and “potentials of intelligent use of colour as an element of art.”

Certainly, every one of us has for once drawn from imagination. In Jenkins (1980, 46) *Imaginary Worlds*, “... the child is encouraged to draw or paint the people, animals or plant life of an imaginary land ... initiated by verbal discussions ..., or a guided visualisation.”

That is to say, having drawn from imagination—once upon a time, learners should as well be encouraged to continue making artworks of drawing and painting in a similar manner. Drawings made from imagination rather than observation can also be accomplished in the same way—from a feeling of certainty, perception and motivation about real life situations or from existing inspirational life styles with in our own surroundings. For example cartoons. In a simultaneous way, drawing from imagination can equally be done in abstract (art) approaches and procedures. It is from such challenges that learners will attain skills of testing their drawing abilities. Jenkins (1980, 46) concurs with a written matter of opinion. *What If/Just Suppose Questions*; “... what if insects were larger than people? Or cows were the size of cats? Or the sun shone all night? Or children were giants and parents were midgets?” Evidently then, learners will not be cheated of the opportunity to think creatively.

In agreement with Ashwin (1982, 120) “imaginative drawing is concerned with making some kind of record from a situation,” such can be a cultural show, “events” you attended recently or “seen and experienced in the past.” We can conclude from this that drawing from imagination does not only refer to finding new options of representing fantasy artworks and designs. Since, “to imagine” in a literal manner “means to create a mental image.” (Ashwin 1982, 120)

In essence, creative artists especially learners must be encouraged to compose and draw wonderful mental pictures which may be adequately needed for other artistic works like paintings, cartoons, illustrations and sculpture.

Human figure drawing

In the words of Bradley (2003, 144), “you do not always have to draw a figure as it is. You can only emphasise or adjust parts of ... your drawing.” Here we see that the intended aims of drawing human figure—for the learner should target acquiring skills of observation and evidence-based judgement.

Most human figure models are routinely posed in nude, since “clothing complicates the figure.” (Vebell et al. 2005, 203) In that way, learners are expected to observe and sketch the body structure of a human figure in a proper way.

Ashwin (1982, 139-140) explains, “Drawing from the nude is a study of naked human figures—typically, for the subject of painting, sculpture as well as photography. Such themes have “... traditionally been regarded as the most demanding and most fruitful of artistic disciplines.” On the other hand, topics, or themes chosen for each drawing subject matter should be purposeful.

Naive artists get it wrong when they concentrate—put a lot of attention to detail for the time of sketching a human figure, by indicating very perfect forms, tones, structure and detail. Just like a camera.

Vebell et al. (2005, 179) assert, “The most important thing is to understand and simplify what you are seeing.” That is to say, likeness of a drawing is not too essential, other than subject matter.

In practice, human figure drawings are sketched in the company of a live model posing in front of the artist—with precise direct observation.

Pedretti (2004) alleges that in “Leonardo’s formulation drawings of a woman’s bust, he observed a basic principle of action motion” for human figure drawings, as a way of suggesting movement “... without changing position.” From this we can as well understand that the appointed model of a human figure drawing necessitate a pose that embrace some kind of movement.

For the most part, actions of movement enhance exceptional expressions; to a pose and it adds variety, impression, direction and a sense of motion for a successfully composed sketch. Certainly, human figure drawing is probably the most difficult subject artists face.

“Knowledge of anatomy will help you understand and simplify what you are seeing.” (Vebell et al. 2005, 179)

In that way, learners should be encouraged to make use of a human skeleton as a visual reference of their self-structure. A skeleton reveals joint structures of the human body in their exact spots and if well understood, creative artists can easily make use of them to discover more about the actual human body and its movement of the various parts. During drawing, a human figure drawing can as well get painted with any colouring medium, for example ink or watercolours. Hence, creative artists will add to they’re advancing skills and abilities of drawing and painting.

Ultimately, then, human figure drawing can also be done by sketching parts separately. We can understand this from the Italian painter, scientist and engineer “Leonardo da Vinci, he devoted a great deal of time to what was very much a scientific pursuit” (Ashwin 1982, 223) when he executed pleasant sketches of detailed studies by dissecting and analysing the tiny details of the human body parts.

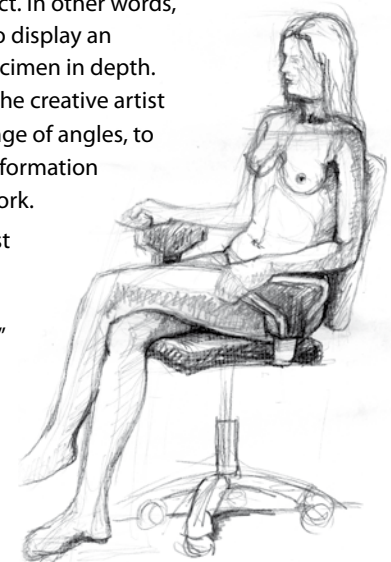
Let us make a brief review on drawing a *study and studies*:

- **Studies** are drawings done to display a detailed investigation of a theme or subject. In other words, the attained sketch is expected to display an analytical representation of a specimen in depth. Micklewright (2005, 144) argues, the creative artist may analyse “studies ... from a range of angles, to provide the three-dimensional information ... needed to make the final” artwork.
- And by drawing a **study**, the artist may use “an individual approach to compose the study” in reasonable solus (single) details...” (Micklewright 2005, 14) Hence, a single explored drawing or a sketch is enough to represent a theme for achievable learning objectives.

In general, it is less easy to appoint a (human figure) model needed for executing certain drawing tasks—accompanied by the above mentioned; *studies* or *in a study*.

The human figure drawing of a lady in a basic sitting pose.

Materials: Pencil on A3 size paper.



Vebell et al. (2005, 202) prefer a different argument: “copy from old masters or draw from photographs.” In a thorough manner, drawing from photographs fits well to experimental learners. And in situations where there is scarcity—finding difficulties in identifying the right model or a specimen needed for a drawing activity or task. Learners in school may be encouraged to work in small groups—pick two or three people to pose as volunteer models. Hence it is important to formulate decisions for the most appropriate pose, which will provide support to other artistic themes as sources of inspiration for new art and design projects.

Ashwin (1982, 139-140) notes, “The greatest enemy of life drawing is habit” caused by opting for a particular general pose for a model. This may lead learners to—get frustrations and restlessness whenever a model moves or tries to change a pose.

We can as well add this proposition as a conclusion that, befitting poses should be free from pain and not very complicated for a selected model. Apart from that, in a normal manner; the forms and structures of human figures are so different, the learner has got to study a lot about bones and muscles.

According to ThirdWay (1985, 20) a Christian based magazine, “Models in most art schools, however are still predominantly female and where I have encountered students having ethical problems in working from the model, it has mostly been where male models are involved.” From here we can also say that proportions of a human body (in either seven or eight heads—tall) can not be easy to draw by learners particularly if the model is standing straight.

For the time of sketching, make sure that the parts included on a human figure are treated with sincerity—depicting the likely gender and age group of the model. The viewer is not expected to ascertain the gender of a model from the face or cloths worn. That is to say, women have slender bodies, men have muscles and babies have improbable bodies. Finally, feasible aims and objectives of drawing humans should boundlessly be focused on *composition, proportion, line, texture and sensation*.

Croquis

‘Croquis’ comes from a French word *rough sketch*.

Such sketches are for the most part done while the model is moving, changing possess or positions after a few minutes but not static—in a single pose.

Sketches of croquis are for the most part unfinished, final results appear as sketchy lines without much obliged details.

Creative artists routinely sketch croquis purposely for learning how to quickly capture the golden moments of a posture, as well as acquiring skills of using various drawing tools such as a brush, a pen or a pencil and ink in various techniques—on different surfaces.

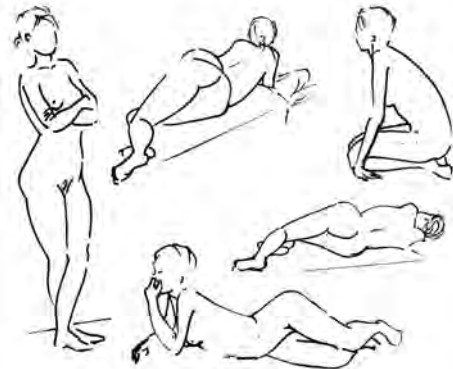
Ashwin (1982, 122) suggests another rational drawing material: “bistre a brownish-yellowish pigment” made from the “soot of burned wood.” It is produced “by boiling soot.” This type of ink can serve the same purpose—just as the genuine black inks. In spite of that, other creative artists mix ashes to acquire a soluble drawing material like ink.

It is as well essential to brief learners about the following—examiner expectations on the subject of drawing human figure:

- Balance the drawing on the paper space provided and it should be within the correct orientation, by the thoroughness of a singled out type of pose.
- Understand the hidden meaning of the pose
- The examiner is not interested in looking at your remarkable talent. Instead, he/she will check to find out how well intended learning outcomes were achieved in the activity.
- Too much extra body details are less necessary and in this way, it is a waste of valuable time. As an example drawing details of the figure like the eyes, hair and fingers or nails as precise as possible.
- Simply concentrate on the body *structure and form* in addition to other mentioned goals of the study such as achieving proportions, expressions and the pose, as well as using tone correctly; to appear in places where they deserve to be.
- Pay more attention to the subject matter you are dealing with

Rough sketches;
studies of
croquis in
action series
showing
different poses.

Materials:
Pen, ink on A4
size paper.



- Investigate the source of light or *direction of light* by showing the relative amounts of light and shadows on the different visible parts.
- Also, the environment or surroundings of a model is important. Artists represent such parts in various suggestive ways by using fading lines or tones.
- Indicate the shadow on the ground for your artwork to appear firmly fixed on the ground.

Most importantly, whenever a model is properly put to pose—as prejudged by a set task. Desist from touching it to avoid causing lack of concentration, anxiety and destruction. Ultimately, then, effective learning and use of study periods shall not be wasted. That is to say, respect the model. Let it be young or old, male or female, ugly or beautiful.

How to pose a model

Choosing a model depends on various specified aims, objectives and learning outcomes, which artists plan to achieve during a given period of the learning processes. Also see: *Practical Justifications*.

Ssegantebuka (2003, 19) is more enlightening: “When a model is posed, different parts change and these changes are determined by the movement of muscles and the skeleton.” It is evident again that a skeleton is vital for helping learners to understand different ways body parts are placed with in a given pose and the arrangement of joints that he/she shall be able to clearly see and determine body proportions during drawing.

Consequently, when a model is set right to a preferred pose

it is essential to mark the different surface positions of the feet and hands with a chalk or any writing material so that; if the model gets back from a break or a period of rest, the original pose shall be realistically attained.

The strategy also saves time.

On average, a pose preferred must at least go up to 20 minutes at a time.

Depending on the level of energy, or age a model has. This is so because, sometimes people assigned to pose as models are less energetic; very old or too young.

Nonetheless, if a chosen model is an infant. Sketch quickly. Young children are not able to sit and wait in one place for a long time without becoming irritated, or anxious. This may as well apply to the elderly.

We can conclude with Vebell et al.'s (2005, 206) explanation that “capturing the gesture is vital for making your figure look alive.” This can be achieved by identifying a meaningful natural gesture for the model—to pose in a turn or a twist, leaning with a support of an object, laying down, sitting upright, or doing something other than standing at attention.

How to draw animals

As Albert (1991, 82) has suggested, “The zoo is not the only place an artist can study animals. You can invite wildlife into your back yard.” Even then, some animals are domesticated. But as a matter of precaution, drawing animals requires to seek guidance from a concerned person such as animal wardens or a laboratory technician.

Some animals are savage and violent—they cannot be domesticated. Others are not good for human/skin contact. Thus, the artist is required to comply with some of these safety measures before dealing with a specified task of drawing an animal:

- Where can the animal be found
- Is the animal human friendly, predictable or hostile.
- Find out if the size of the animal is astonishing, big or small. Then, identify a strategy in which you can achieve major learning aims.

- Conduct an inquiry to know the nearest access to medical assistance in case of harm (disease infections) caused by the animal.

That is to say, for the most part the artist is required to collect enough facts about the animal. Beyond everything, some animals can cause or spread incurable diseases. Thereby, read or carry out a systematic inquiry about the behaviours of the animal before you begin that sketching adventure.

Apart from that, animal bodies are made up of horizontal shapes, which display distinctive angles of their particular poses as compared to humans who; for the most part maintain an upright position in a vertical way.

As a result of that, animal bodies affect the orientation of the paper during sketching.

In a subsequent way, it is a good idea to sketch two or more positions at the same time. For the reason that, animals tend to repeat actions again and again. They pace back and forth in expressions of anxiety. Depending on the nature and the unsure behaviours of animals, be very observant as you sketch all the attainable postures of the animal. Most importantly, try all your best to record down every detail of each pose in a precise way inside your sketchbook.

For some reasons, a camera may be inevitable or necessary especially if the animal is likely to attack—not so friendly to humans. Whereas, using a camera may generally require the artist to—take very many pictures of the animal since, “drawing from a single photograph is generally useless.” (Laidman 1974, 175)



A study of a cow.
In the profile view.

Materials:
Pencil on A3 size paper

In a different set of circumstance, the creative artist may be required to **draw an insect**—to make a study or studies of a specified specimen in detail. “Insects are fascinating little creatures, but they can be hard to draw because they are so different from the animals that we are used to seeing. If your insects don't look perfect right away, don't give up. Remember to go slowly and be patient.” (Lee 2002, 5) Start with—sketching different parts of a provided specimen and see how they relate to each other as a whole to form a complete drawing.

Under normal circumstances, the artist is expected to be very observant, since the parts which form insects are different from those found with distinct still-life or nature objects.

That is to say, draw what is really there rather than what you think is likely to be. And where necessary, use a hand-lens. Do not start with parts that you suppose—to be difficult.

In the same manner, too much detail is less important. Buser (2006, 9) offers this rational explanation: “the more detail is depicted, some people assume, the better the work of art. Since art lies in the artist's skill ...” Most times, studies of insects can be sketched to show different parts as dominant in details. By doing so, the drawing will display a focal point or centre of interest.

In Lidwell et al.'s (2010) *visibility principle*; they remind us that “when it comes to design, the principle of visibility is perhaps the most important and most violated principle of design.” That is to say, it is disgraceful to find drawings especially of insects, done without proper observation. In general, “because drawings are sometimes part of a series of a larger scheme, they can appear unfinished but they can be complete in a sequence of drawings exploring a common theme.” Thus “it is not always relevant to talk in terms of finished drawing.” Micklewright (2005, 143) observes.

How to draw objective study

Objective study is a method used by creative artists to execute drawing artworks from a single specimen; in analytical representations. Baker (1984, 124) asserts, “Objective drawing and painting are the artist's means of acquiring a vocabulary of expression, design and composition ...”

Apart from that, nearly all objective study drawings are research-based compositions. *See drawing studies.*

Leonardo da Vinci used objective study to explain his art in various scientific ways.

Some of *Leonardo da Vinci's* works indicate very many precise painstaking studies and details.

According to Pedretti (2004) "Leonardo's youthful experiments on"—drawing "frogs and monkeys" was a statement to suggest that unlike scientists; objective study is the opportune time when artists can methodically cut up (a body, or a plant) in order to study its internal parts.

To make a drawing on the subject of objective study, the artist has got to first carry out an investigation about a targeted theme. That is to say, it is imported to understand all the specified learning aims and objectives in order to fulfil all the necessary requirements of a chosen task. Inasmuch as, objective study—drawings can be used in painting, mouldings, sculpture, printings as well as graphic design.

Finally, objective study is particularly done by observing natural objects like plants and animals. Thus, the artist is expected to put greater emphasis on providing evidence of *natural growth, sensitivity, depth, texture, composition, shades or shadows.*

Exercise

1. Make a study or studies of an insect using a hand lens of magnification. (Not less than x10)
2. Find a model to pose in one set of croquis and choose one drawing tool of your own choice from the provided list: a brush, a pencil or ink with a pen. Observe and sketch the model in numerous actions poses.
3. On a low table, make a study of a cassava plant freshly pulled out of the ground. It must clearly show the greatest parts of its roots. Leave a stem size of approximately 15cm long. On any side of your choice spread few pieces of freshly plucked cassava leaves on the ground close to its tubers. Lay a knife or a machete (panga) on the leaves and it should be visible. Observe and draw.

4. Make a study or studies of a male tethered goat.
5. Draw a landscape showing at least two noticeable sides of a building near a hedge or a fenced area in your school compound.
6. On a well laid mattress, pose a model—to lie horizontally. Place the hands on top of the other, underneath the head. Use a pillow to support the head and you may wrap the model in a standard single bed sheet or leave the model with cloths on and no cover. Observe and draw.
7. On a high stool, spread a clean spotless coloured fabric, showing loose folds of drapery on one side of a stool. On another side of your choice, allow a single leg of the stool to be seen. Then, place a five litre jerry can on top of the stool; lying on its belly side. The top part of a jerry can must face directly to the candidates, not facing up—its mouth must not face up towards the roof. Draw what you can see only.

CHAPTER FOUR

Painting

Painting is a method of executing artworks using colour pigments known as paints on distinctive enduring surfaces. By painting, artists can creatively decorate surfaces to make them appear like differing objects or images and sometimes both. Ssegantebuka (2003, 34) defines painting as “the art of using colour to express ideas, feelings or mood in pictorial forms.”

Elkins (1999, 193) uses a different explanation: “Painting is a fine art: not merely because it” allows painting artists to depict artistic images like “trees and faces and lovely things to see ...” using paint—owing to the fact that sometimes such painted objects are taken to be approaches of a freshman’s painting.

More so than anything else, the first known African paintings are believed to have been painted by the San people. Curtis (2006, 196) affirms, “Rock paintings were believed to be the first painted works of art mostly done by the cave people. They painted using their fingers and soft coloured clay on rock surfaces following examples of claw marks made by animals.”

Clearly, then, a well-known ideal source of paint material used on rocks came from coloured soils obtained from organic (living matter) and inorganic (not from natural growth). In other words, “red” paints were obtained from “iron oxide, black paints were executed from inorganic compounds such as manganese dioxide, as well as pine carbons.” (Curtis 2006, 18)



Scanty waters.
Acrylic painting

Size: 30cm × 50cm,
on a hard board.

Thus, the paints used by creative artists to produce painting artworks can also be obtained by mixing ground colour pigments and they may be added with various types of cohesive substances such as gum to bind them on a planned surface. In the same manner, fine powder colour can be used to make paintings after mixing it with water to be transformed into a proper consistence of paint (in a paste mixture). Feisner (2006, 26) adds, “The various paint pigments have different mixing properties and they require diverse types of binders to transform them into workable tools.”

Artists can creatively do painting by using local materials such as solid dyes from natural or synthetic substances. Such materials should be capable of causing colour (to appear) on a preferred surface for example *tea, squeezed plants, roots or leaves*. Almost always, “artificial pigments can be obtained by dry distillation (burning) of various substances such as charcoal, peat soil and fossils.” (Feisner 2006, 26)

Let us make our conclusion with Kyeyune’s (2003, 47) brief record of fact: “rock paintings found at Nyero and Kakoro in eastern Uganda, as well as Lolui island in the east of Lake Victoria” are of undisputed origin that belong to the past and “the significance of these paintings is yet to be interpreted.” In general, the art of painting is considered to be extant—it is the oldest and it is still surviving.

Uses of painting

As Jenkins (1980, 131) has remarked, “painting” is a “special value to a child. It is “a form of relaxation” and it is a “communication.” It can also be used as a means for releasing emotions. Indeed, through painting we can explain, interpret hidden meanings and information, words, or actions represented as colourful images (of animals, still-life and nature, symbols and signs, texts or words).

Here is a brief discussion about other benefits of painting:

- Painting attaches our daily life to the aesthetics of colours.
- Through painting artists attain imitated creative styles—to supplement with their attained skills of colour use.

- Painting can be used as a medium for sharpening a learner's logical reasoning.
- It can be used to discover the life and art of greatest painters as well as past events.
- We paint to review and to practice our theoretical knowledge of colours.
- During critiques, painting artists acquire shared knowledge about techniques and colours.

Painting tools

As creative artists, we can as well find some necessary tools for producing paintings with in our surrounding environments. Trowell (1951, 19) reminds us that sometimes the "equipment and materials of art are very expensive." Hence causing serious troubles to teach and to experiment further about other ideas of executing painting artworks.

As a consequence of that, let us take a look at Jenkins' (1980, 131) table checklist to review various local tools necessary for painting, and easy to acquire at minimum cost. They include:

Hands/feet	String
Tooth brush	Rope
Sponge	Rag tied on a stick (brush)
Straight wooden sticks (Roller)	Deodorant bottle/Roll-on
Used plastic tins for palettes	Animal hair (brushes)
Bamboo cups	Plant pods (palette)
Calabashes/Gourds	Straightened sisal
Feathers (for brushes)	Cotton balls
Plastic bottles for carrying paints	Drinking straws (blow runny paint)
Chewed sticks for paint brushes	Plant leaves (colouring dyes)

Finally, in Lund's (1998, 19) *Chumash Rock Paintings*: "The chumas are famous for their painting on cave walls ..." They "painted many things in nature" like "animals, fish and birds ... stars, lines and many shapes." They also made "paints from charcoal and coloured rocks." And "from burned wood ..." These people also "used soft rocks that were red or white" to paint.

Their process of making pigments is broken down in simple, manageable steps like pounding the rocks into powders and then, they "... added water, plant sap, or animal fat" to serve as binding agents. In addition, they also "used plant leaves or animal tails as paint brushes."

And they as well "painted with their fingers." From this we can understand that, individual creative artists can also be encouraged to find various exclusive painting tools, materials and equipment necessary for producing painting artworks locally from a variety of materials available.

Surfaces for painting

As Jenkins (1980, 142) has asserted, "By encouraging learners to experiment, they can find out how surfaces and tools interact with each other hence building an awareness about paints on objects." Clearly, then, painting accords to a large number of surface supports that may at times not be accessible by nearly all creative artists. As a result, learners should look forward to making explorations on various surfaces. Hence they will grasp various improvisation approaches necessary for executing their painting artworks.

On the other hand, the learner can as well do experiments by painting ordinary surfaces such as "used" or old items, meant to be thrown away. Jenkins (1980) suggests examples of painting surfaces like:

Cloth	Small napkin
Stones/ rocks	Metal
Hand kerchief/ Bandanna	Animal skin/ leather
Mat	Wood
Paper bag	Plastic containers
Newspapers	Carton box papers
CD/covers	Tiles or broken pottery
Glass	And card-boards et cetera

Ultimately, through tentative adaptations—by experimenting on various surfaces available, creative artists can as well discover, assimilate and then execute powerful master pieces of painting artworks. In due course, a favoured surface shall be picked out as an answer to the puzzle.

Liquids for painting

The types of liquids necessary for executing a painting artwork can also be obtained by squeezing fresh or dry fruits, leaves or plants and sap from plants as well as juices to extract colouring matter or pigment. See Watercolour painting. According to Jenkins (1980, 133) liquids for painting include:

Food dyes	Ink solutions
Tea/coffee	Crushed orchid flowers
Ash	Muddy cement
Clay	Mud water
Bleach	Fruit juice
Liquid shoe polish	Water mixed with powder colours

Generally, nearly all the above mentioned types of liquids can mix well with gum arabic to bind solutions of (water) colour. It is a natural gum obtained from trees and it is commonly used by printing and textile artists as a binder. As a creative artist, try different experiments like mixing ordinary liquid soap with wax together with a single pigment, then paint. Obtained results shall show a pleasing textural effects. The creative artist can furthermore execute painting artworks by using Jenkins (1980, 137) *Painting Variations*; For instance:

Detergent painting	Here, powder colours are mixed with a liquid detergent (<i>jik</i>). It is good to use on glass or aluminium foil.
String painting	Immerse a string into paint, then drag or swirl it between a folded paper. Pull it out and check the obtained results.
Bleach painting	The artwork is made by using undiluted bleach. The bleach can be used on coloured papers or fabric. Rinse the paper to regulate the bleach, also use nylon brushes.
Foot painting/ hand painting	Can suitably be done from outdoor, in this way; paint the feet with a brush, or dip the feet (or hands). After that, step out on a large sheet of papers or a clean fabric.
Straw painting	Through the mouth, paint or ink is sipped or pulled inside a straw in small amounts to be blown out on a surface, spread it or use the straw to mix it (by blowing) for the time of creating a painting artwork.

Chalk painting	Can be done with wet coloured chalk on dry paper and the vice versa.
Resist painting	A sketch is made using crayons and then a wash of watercolour or food colouring is painted over.
Spot painting	Blots of different colours of paints can be poured on a paper and then pressed down when a paper is folded to come up with a fraternised blend of colours.
Sponge painting	A loofah sponge is ideal for this method of painting. It is fibrous and home grown. During painting, apply a colouring matter on the gauzy fibers using a brush. Then, run it (loofah sponge) on any other obtained surface, or by stamping.

Painting and application of materials

Every medium of painting has its own shortcomings as well as prospects. In the words of Mayesky (2009, 269), "a set of paints can be carried easily if the containers are placed well in a tomato basket." He was referring to a particular manner of handling paints, transporting them from one place to another.

Thus, during working; a painting beginner should be nurtured with the various ways of how to deal with the entire process of executing a painting artwork. For instance, it is important for the learner to begin by learning how to prepare powder colours. If they are well prepared, they are easy to handle, clean and wash. In addition to that, powder paints dry quickly.

Powder paints can be prepared locally by adding one specified type of fermentation substance like *honey, sugar, or local brew (mwenge bigere)*. In small quantities not in excess of reasonable requirements, mix the fermentation substance with powder paint and then, put a cover and tie the container. Wait for the process of fermentation to take place. It may take two to three days for your (paint) pigment to be ready for use.

To make an effective smear of paints on a surface, the creative artist may use only the fingers (the thumb or the middle fingers) and probably chewed sticks. But in actual practice, many artists paint with a brush or a palette knife.

Webbo (1996, 40) observes that “... sometimes we find that one needs a commercial material to be able to produce a kind of material to replace the actual one that should have been used.” Thereby, if you can afford to buy paint brushes—go for types made with (“animal hair”) *nylon thread fibres*. They are good for painting with acrylic paints. Yet, “*bristled brushes*” are fine with “powder” and oil paints. Here is a table showing Webbo’s (1996, 40) improvisation of tools, particularly basic materials and equipment:

Commercial	Improvvised
Paint brushes	Sisal brush, quill feather, chewed twigs
Pens	Stick pen, bamboo pen, cocoa nut leaf stalk.
Sand paper	Broken bottles, leaves (<i>Ficus capreifolia</i>)
Chisel	Forged metal or a nail (6 inch).
Pallets	Bamboo tray and cups, calabashes, coconut shells, gourd.
Paper	Cement paper, maize or wheat meal packages, old newspapers and walls.
Paste	Maize meal paste, cassava, wheat, seed pod paste and plant paste.
Paint	Earth paint, plant dyes, charcoal, ash, ordinary ink, coloured chalk, soot.

The strategy here is to guide the learner to discovering improvised tools, materials and equipment necessary for painting. He or she must as well be able to know where to find them. According to Webbo (1996, 40), “improvisation in schools should be regarded as a means for the teacher to continue with lessons despite lack of commercial materials, tools and equipment and not only making the pupil put them to use ... but also learning how to produce them locally.”

Thereby, at the appropriate stage of mixing and application of ready paints—pigments can be caused to mix together on a clean surface of a *plastic plate, container cover* or in *plastic tins* nailed on a wooden board of an easy to carry size, as opposed to the costly standard palettes.

To paint on a surface of a canvas, the cloth must be properly stretched onto a wooden frame or any available suitable support to allow proper painting processes. In Gottsegen’s (2006, 41) *The painter’s handbook*; “Today artists chiefly use cotton, linen and a few synthetic fabrics. Canvas is a term

often applied to cotton materials.”

Clearly, then, as a creative artist consider making further painting experiments on other surfaces. Like *hard paper, bark cloth, wood, mats, used-sisal sacks, metal plates, furniture* and *plastics*.

Nonetheless, if you plan to work or make a painting artwork on any of the above mentioned surface supports; use gesso to prime the chosen ground. *Gesso* is a type of (primer) under coating material. It is (made) “mixed with a combination of chalk, powdered plaster and glue.” (Feisner. 2006, 27)

Gesso gives a false brilliance to colours during painting as well as preventing the absorption of subsequent layers of paint into a surface of the support and it keeps the artwork safe from developing rust in case the artist worked or painted the artwork on a metallic surface. Locally, the creative artist can use (boiled) cassava flour to prime the canvas, it is cheaper than gesso.

Apart from that, at the stage of transferring a sketch, start with a sizeable copy of a desired drawing. Ashwin (1982, 159) notes, “One of the traps in drawing for painting is to attempt to get the drawing to anticipate or emulate the qualities, which one hopes to achieve.” On the contrary, that may not always be the case because when it comes to painting there is no professional formula.

However, it is as well important for the learner to understand that during painting. By no means—will a painter be tolerated, if a painted artwork is done by using exact colours.

A good case in point could be using a pigment (of red as red, or green as green) without any vagueness, but exactly as we perceive them with our naked eyes. Such painting actions can only be endured if a task undertaken is aiming at achieving an experimental learning objective such as understanding the precise appearance of different colours on different surfaces.

To begin the process of executing a painting artwork, Elkins (1999, 95) offers this explanation: “If there is one subject that is treated in every one of the thousand-odd artist’s manuals, it is starting a painting along with knowing how to finish a painting.” Here we see that the approaches of executing a complete painting artwork are limitless.

Although it is sometimes necessary for learners to be taught how to avoid making a painting without putting logical judgement that colours appear vigorous if they are carefully matched or balanced consistently. Aliquot parts of (colours) paints should be evenly distributed throughout—not to concentrate on the most pleasurable details such as corner area or spaces on a painting artwork. It is a “naive painting style.” (Kyeyune. 2003, 104)

To some extent, such problems are caused by lack of experience. It forces the learner to hold colours—without moving them to and fro, in the course of executing a painting artwork. Trowell (1951, 25) affirms, “Many children find difficulty in mixing colour and this is also the aspect, which may lead to lack of success” in dispersing or distributing colours “smoothly on the paper” or any other chosen surface.

Ultimately, when all the intended outcomes of executing a painting are successfully carried out, always remember to thoroughly clean up the place. Wash and dry all the paintbrushes and keep their bristles facing up, all the time.

Painting techniques

Before a preferred method of painting is put to a befitting use; a sketch has got to be done. Ashwin (1982, 223) notes, “... when students were advised to sketch, they were able to attain the vigour and spontaneity of the sketch ... even at the major stages of painting.” Indeed, creative artists produce varying painting artworks from a sketch—in different approaches.

Here is a set out list of some conventional painting techniques:

a) Collage painting is a method of executing artworks with various soft coloured forms of materials such as *paper, photographs* and *fabric on a single surface*. A successful collage artwork must at least contain materials that are closely connected, like cloth on paper. Other examples of collage fascinations are *photography paper pieces, theatre tickets and newspapers*. Nonetheless, paint pigments can also be used in a mix and match approach to execute a collage artwork. *Pablo Picasso* used this technique to execute a large number of his painting artworks. However, the techniques of collage painting are limitless.

b) Watercolour painting is a method of creating artworks with pale diluted colours, not by adding white paint. Various water colouring materials can be locally acquired from earthy colour materials such as quarries or surface cuttings where different layers of rocks have been exposed. But then, such colours have to be processed by grinding and sieving.

Other types of watercolours necessary for painting can furthermore be obtained from plant leaves or flowers. Trowell (1951, 125) alleges, “Colour from leaves and berries can be prepared for use during painting by hammering them to a pulp between stones” or by using a pestle and mortar.

Painting artists like *Albrecht* and *John Marin* used watercolour techniques to produce painting artworks. In Blake's (1997) *Acrylic Watercolour Painting*, the techniques of watercolour painting are listed as “washes, wet-in-wet, dry brush, scrambling, opaque et cetera.”

Let us make a review of different methods used in watercolour painting from the table list provided below:

Dry brush	This technique creates watercolour paint markings which are very brittle, with hard edge creeps. The generated trails of a dry brush indicate breaking or shattering markings on a surface of a dry paper during painting. Dry brush is good for areas around the centre of interest. “When you're working in traditional watercolour, each new dry- brush application is likely to scrub off or stir up the soluble paint underneath” Blake (1997, 112) laments.
Washes and glazes	Crabtree et al. (1998, 180) explain wash and glazes solely in this way; “A wash is a large area of transparent colour, whereas a glaze is more localised.” This method of watercolour painting produces an impression of light gracefulness and elegance with a delicate translucent colour effect particularly if the artist used a grainy surface. Glazing only allows the previous colour to show through—over a previous layer of paint.



Mother.
A watercolour painting

Material:
Watercolour papers
Size: 14cm × 30cm

Wet in wet	The surface or paper is used when it is already wet. According to Blake (1997, 91) “wet-in-wet ... is sometimes called the wet paper method.” It is not so easy to use. What makes the wet method so difficult is that a brush-load of colour is supposed to be applied to a sopping wet surface. Sometimes watercolour generally runs off in some unpredictable direction.
Diluting and mixing watercolour paints	This is a watercolour method of painting where the artist applies a thick, heavy, opaque paint on a surface as it comes from the tube. And at the stage of creating pale colours, the paints are heavily diluted with water. The good point about this type of painting is the range of colour effects it produces from the separate paint consistencies.
Minimal palettes	This is a method of watercolour painting. Where by, the artist uses a small range of colours during painting. For instance, a watercolour painting can be created by using the basic three primary colours along with white and black. On the other hand, painting with minimal pallets is often enhanced by under drawing markings of a pen or ink.

- c) **Encaustic painting** is executed by mixing (paint) pigments with hot “beeswax not oil” Elkins (1999, 132). Encaustic is suitable for painting on wooden surfaces and hard paper. Painters who use encaustic to produce painting artworks; do that, by sculpting or modelling a mixture of paints with heated beeswax to hold together onto a surface. For the creative artist to achieve the desired learning outcomes, special tools as well as skills may be required to execute this experimental aspiration. For example, a palette knife, bee waxes as well as ground pigments. Thus, mix powder paints or acrylic paint with hot bee wax and where necessary add linseed oil so that the paint paste changes into a semi translucent—fresh pigment. Then, start to paint.
- d) **Mosaic painting** deal with a number of hard colourful materials, for example glass, wood, tiles, metal, stone and plastic. These can be arranged together to form various variegated patterns.

The process and techniques of artwork execution generally depends on the type of material the artist has chosen. Mosaic paintings are good for decorating walls, roofs and floors for houses.

- e) **Fresco painting** is a technique of applying water-based colour pigment to wet (lime) plaster/ mortar on a wall surface or a ceiling. When the colour pigments are combined with plaster, they diffuse into the wet paint plaster—not to peel when exposed to humidity and wetness. That is to say, the colours in fresco penetrate the plaster and they become fixed as it dries. Working with fresco requires the painter to work quickly and to be attentive to potential problems since mistakes are not easy to be undone. *Michelangelo, Giotto, Masaccio* used this method of painting in most of their work.
- f) **Fresco secco** is a technique of painting used on dry plaster. Firstly, the (paint) pigments are mixed in water before applying them on a dry wall. The fresco secco approach puts on display brilliant colours than fresco. In this method the process of working involves using “the plastered surface of a wall soaked with slaked lime ... Secco colours dry lighter than their tone at the time of application, producing the pale, mat, chalky quality of a distempered wall ...” (Encyclopaedia Britannica)
- g) **Pastel painting** works as a pure form of pigment; it can be applied onto a surface directly. Using pastels requires no medium or vehicle such as oil or water except if the painting artist has chosen to paint by using a mixed media technique—combining several media and various materials within a single painting artwork. Ultimately, pastel painting is capable of generating greater intensities of hues than most painting mediums.
- h) **Egg tempera painting** is a method of creating artworks with a water base paint mixed with an egg yolk (as a binder) and water. It is easy to prepare and it is usually fit for use on an already primed surfaces (to prevent paint absorption). A painting done with egg tempera has got to be protected from harmful and damaging insects once it loses its wetness.

Mill for a meal.
A pastel painting with trimmed corners.

Materials: Pastel on bark cloth.
Size: 20cm × 14cm



Trowell (1951, 27) shares a rational suggestion: "it is difficult for ordinary people to buy ... poison to keep away insects." Thus, "mix a small amount of D.D.T powder or gammexine with the paint" before you start to paint. In most cases, the outcome of such pigment is opaque. Generally, egg tempera painting dries very quickly on a slightly roughened surface such as metal or sisal sack. *Andrew Wyeth* painted with egg tempera on panels.

- i) **Oil painting** is pertinent to using ground colour pigments; it is often mixed with other solvents such as turpentine to obtain a thinner, faster drying paint, or it can be mixed with linseed oil for a praiseworthy drying. Elkins (1999, 1) explains, "to make oil paint, it is only necessary for the painting artist to make inquiries about powdered rock," then "mix it with linseed oil." The attained results are therefore spread in an approach commonly referred to as painting "with a brush" on a surface of the support. Colour consistency is the most important.

There is a considerable difference between oil and acrylic paints. From time to time, creative artists decide on using a single type or both of them (oil and acrylic paints) simultaneously on distinct surfaces. Gardner (1998, 84) asserts, "Artists find working with acrylic paint much like working with oil paint and apply it to the same surfaces as are used for oil painting." Let us see the benefits of using each one of them.

Advantages of using acrylic paints

Acrylic paint can be creatively used "to paint ... wooden or plastic objects such as toys, jewellery, picture frames, or screen posters." (Shivers 2010, 96)

Other important advantages of using acrylic paints include:

- Acrylic paint contains a substance of glue and this type of paint is easy to be watered down or diluted with water during painting. And when it gets dry, it becomes water-resistant. Thereby, a work of art painted with acrylics is well protected and preserved.
- If acrylic paints are mixed well, they are more permanent and they do not crack easily.

- Paintings done with acrylics dry well and it is possible for a painter to directly put additional layers of paint on top of the already existing colours.
- Acrylic paints can work as thinned colours; they do not possess a solvent type of smell. It is easy to extract acrylic paints straight from a tube or a tin. That is to say, it is pliable.
- Acrylic paints are easier to clean. The painter is only required to use water to clean a wet stain.
- And also, acrylic paints can be mixed with other thinning substances in order to achieve the best—desired performances.

On the other hand, during painting it is not easy to make pure mixes of blend by using acrylic paints. Nonetheless, if the artwork of a painting is big and it is likely to take more time to finish—add or mix paints with turpentine to lengthen the time for which it must dry.

Advantages of using oil paints

As Gardner (1998, 118) has remarked, "Tempera reigned as the most favoured medium to painters until the introduction of oil paint." As a result of this, oil paint is distinctly known as a conventional material typically used by nearly all artists.

Let us have a brief analysis of basic benefits the painter can get if he/she used oil paints:

- Oil paints cause durable shiny surfaces assisted by their pure colour reflections. Accordingly, oil paint is a good choice for recreating and creating new works of art.
- A painting done with oil paints can be left open for a long period of time—during public displays.
- Oil paints can easily generate smooth tonal variations by using a brush or any other smudging and/or spreading tools. In an easy manner, the artist can create series of blends and intonations using oil paints.
- Oil paints dry slowly during painting (or artwork) executions. Thus, it allows easy working processes. Such as adding and mixing colour straight on a canvas.

Many more significant benefits and drawbacks of using oil and acrylic paints will come by during working in your daily practices—particularly if you will gain necessary skills from the entire approaches of painting provided.

We can conclude with Gardner's (1998) creative statement: "Artists devise ways of applying paint with a brush or palate knife." That is to say, in a natural manner you will also discover more techniques of painting even by using various colouring substances, tools and materials.

Exercise

1. As a creative painter, make an imaginative composition of a painting from **one** theme here below:
 - My first day at school
 - Women emancipation
 - A day at school without shoes
 - Returning a borrowed book you are obsessed with.
 2. Choose **one** theme from the list provided and make a composition of a painting artwork appearing as a detailed study or studies:
 - A full body structure or parts of a human figure
 - A simple still life combining the natural with the man-made
 3. By using the knowledge and skills you have acquired in painting. Choose one theme from the provided list and paint a pictorial composition about:
 - Your homestead
 - Child labour
 - Child torture or Child neglect
 - Corruption
 - A fight for women's rights
- Use only one painting technique of your choice.
4. In a mixed media approach, produce one painting of from the provided list of themes:
 - Landscapes
 - Seascapes
 - Townscape

CHAPTER FIVE

Graphic design

The inner importance and meaning of graphic design is broad.

Graphic design is a functional visual language of art and design where artful images are arranged—alongside with texts to make information known (communicate) and to set things in order.

In the past, the early man unconsciously did graphic design by using depiction techniques of a kind like *etching, engraving, printing and decorating*—mostly with simple tools such as *bare hands, bones, stones, smears of animal fat, blood, soils and curved woody projections of sharp-pointed tree stems* as well as *plant parts such as leaves*.

Frank (2000) offers a rational explanation: "outdoor signs used above shops were the first form of advertising done by the Greeks and the Romans." In spite of that, "Egyptian merchants hired criers to direct customers and to walk through streets to announce the arrival of ships as well as their cargo."

This statement enlightens us about the origins and importance of graphic art; announcing using printed pictures, text scribbles or notifications and other public displays commonly referred to as advertisements in organised arrangements.

Today, graphic design has become better in terms of creativity, process, materials, purposes and applications.

Most importantly, computers were introduced and they are taken to be one of graphic arts greatest significance. Fiell & Charlotte (2007, 7) assert, "... now everyone with access to a personal computer thinks he or she is a design maestro, regardless of talent."

But then, a computer alone is not the most important design tool necessary for executing a successful graphic design. Acquiring special skills and knowledge of explaining the meaning of information, words, or actions for a specified task, orderliness and clarity—are some of the essential points necessary for nearly all hidden subjective interpretations of a graphic design.

Well as computers have dominated a big part in the graphic designer's creative processes; to a greater extent, they have only given rise to high-speed designs and production. According to William (2007), "before computers, layouts could take days and the final artwork was not as detailed or complete as designs created today."

Distinctly, then, many artists with good computer skills and creativity have turned out to be efficient in most graphic design engagement techniques and applications—used during processes of integrating images and texts. After all, today, nearly all graphic design processes necessitate touching on the digital. (Fiell et al. 2007; 7)

In their book *Contemporary Graphic Design*: Fiell & Charlotte (2007, 7) explain that "in some ways the digital ascendancy has eroded the professional graphic designer's status...." But then, computers have not knocked out the creativity of graphic designers. Actually, it is the graphic designer who commands each design application used in personal computers. Hence designers are expected to make a sketch as the computer waits for input.

Most importantly, a sketch guides the first stage of a graphic design. And this may involve discussing ideas, which led to the reason of selecting a particular design. *Other uses of a sketch include; enhancing a concept, helping to compose the basic layout of a design, processing/researching solutions of a design visually, its also a client communication and it can be used for very many design endorsements.* In other words, learners must understand that a computer is only meant to reproduce ideas from a graphic designer's sketch.

However, not much can be unearthed within the time a creative graphic designer spends in school. Since learning about graphic design is very extensive. In Kyeyune's (2003; 40) view, "throughout 1935 to 1936 apart from ordinary school lessons in drawing, little attempt was made to give instructions in graphic arts and there is no society to encourage its development." Here we see that in spite of the fact that graphic design is a vast branch of art and design studies, not many of us are mindful of it. Probably because graphic arts is not well explained in schools.

Moreover, "today it is not unusual for graphic designers to go on to have post careers as art directors and production designers." (Fiell & Charlotte 2007, 7)

That is to say, a large number of proficient people work as graphic designers because of its limitless line of duties. Here is a table showing occupations of people who work as graphic designers:

Graphic design careers		
Interior design	Film/Television	Digital printing
Web design	Product design	Cartoon making
Animations	Print making	Interface designing
Illustration	Architecture	Exhibition/Display
Poster design	Typography	Pre-Press
Book design/ Publishing	Fabric decoration/ Fashion	Information Graphics

Uses of graphic design

Graphic design is held accountable for plenty of things—in our daily lives. It serves to those who read and those who are unable to read or write, hear or talk in the following ways:

- Graphic design enables us to make intelligent use of symbols—alone, or together with typography.
- It provides a utility support for suitable use of useful vocabulary in the most convenient way.
- It is an important tool in all ways of advertising and visual communications.
- Graphic designs bring orderliness and arrangement of our social tendencies.
- Besides, graphic design regards FUNCTION as the most important aspect of a working design.

Apart from that, a complete graphic design encompass various visual elements and principles of design that are worthy of attention. Smith (2005, 487) asserts, "... graphic design principles guide designers who are laying out the various elements in an advertisement, brochure, or magazine page based on sensitivity to such visual concepts as unity, direction, dominance and contrast." Thus, other examples of elements of design used by graphic designers include *line, shape, texture and colour*. Yet, *movement, balance, emphasis* are among the few principles of design commonly used by graphic designers. Read more from *Chapter Two*.

Information graphics

The study of *information graphics* deals with representations of graphs, icons, illustrations or images, maps and symbols—portrayed as abstract visual information in simplified visual data.

In Lidwell et al.'s (2010, 132) *Icons Representation*; they are used to "... reduce performance load ... For example, a door lock can be symbolised with an image of a padlock even though the padlock looks nothing like the actual." In other words, distinct images are routinely represented with simple icons basing on their purposes—information they are created for and they are also created in different ways for very many kinds of visual displays to show quantitative and statistical data on graphs and maps.

In your home area look at information boards, graphs and maps to be able to understand the different ways of how to display data, facts and statistics for precise, quick, effective analysis.

A large number of information graphics are created in accordance with the universal visual language. That is to say, icons of information graphics are liable to possess strong colours such as red, blue or black against white. "Warm, strong colours such as red are better spot colour choices for visual signals such as headlines and standing headlines. Body text in colour will slow the reader down in processing the information and could discourage readability." (Rolnicki et al. 2001, 280)

How to plan a design process

As you think about what to do with your inspirational ideas for a graphic design project. Start alongside of a design brief.

Never take a design situation for granted—that you know what to expect about an existing problem. Willard & Marietta (1961) allege, "Genuine creative thinking in any field is done on an abstract level. The reasons being familiar things are not necessarily obvious." Here we see that graphic designers have got to plan for the time of starting a design process.

Begin by *planning the working process*. A designer is expected to focus attention to the most desired results. Write down an estimation of the design stipulations (specification) in outlines.

Thus, invest time in making inquiries about the problem. A creative artist may also need to make feasible investigations about the different ways of dealing with each of the stated events. This stage includes asking questions from specialists.

Draw a mind map to state an outline of general problems needed to be solved along with a list of possible available answers. Jenkins (1980, 30) notes, "at every age or stage most people go through the stage of manipulation when presented with a new material."

Hence, if a design necessitates an artwork or a sketch, get back into the studio and draw possible artwork solutions on paper. Your first idea may not necessarily be the best, so try out different design concepts and then combine all ideas created—into one corresponding appearance fit for your obtained research.

After that, *single out a more suitable solution* in which your final idea will later on be developed. And be sure that it can satisfy some of the specifications included for the research or task.

That is to say, at this stage preferred drawings should at least contain every necessary detail of the expected final design. Also here, a budget can be included—when necessary; to assist and to provide some clear justifications of the worthiness of a proposed project or design.

Then, go ahead and *construct a typical example of a preliminary version or a model and make tests*. These may include procedures prejudged to establish the quality, performance, or reliability of the project.

Remember, very few designs are perfect, but if you want to acquire more knowledge about the success of your design ask your self-questions like; how well will the design function? Will the design work in a reliable way? Or, can the design be used without harm? And, can it be understood?

Lastly, make a written account of the process in form of a report. It is necessary for it provides evidence and a detailed description of the design and materials used to execute the project. Also, it explains the designer's ability to analyse, plan, create, evaluate, produce, communicate and deliver.

Nonetheless, the reasons of working with a *design brief* differ. Once in a while, the approach or series of steps and research needed to execute a design are never the same.

Phillips (2004, 9) reminds us that “there are many design projects that could be classified as routine or on going that would not require a formal design brief.” Thereby, a design brief may be as simple as drafting a short description, which will assist a user group and for explaining the purpose of the product you have created.

Features of a graphic design

In general, graphic designers compose visual artworks in very many ways. As an example, the design created may sometimes contain “images, texts ... to naturalise specific meanings of connotations” Barnard (2005, 38) notes. As a result of that, on a basic visual or communication design you are more likely to find the following mysterious fascinations:

(a) the **image** (illustration)

(b) **typography** (relies on)

(c) a **layout**—to communicate or present a message

Fiell & Charlotte (2007) say, to get a message across “today's graphic designers have to be ever-more aware of the fast-moving currents characterised with short attention spans.” Readers today, pay less attention as a result of the tedious repetitions of informing messages found on streets, walls, hallways and notice boards “... which leads to a natural empathy—caused by technology.” Doubtless, then, the necessary messages that we use to officially announce visual utterances on most graphic designs calls for simplicity, clearness or clarity and it is vital to make every part of a graphic design visible, readable and understandable.

Typography

A large number of visual communications and designs possess letters or type meant to function in specified ways. White (2002, 103) explains “typography” with this brief statement; “The root words that make up typography are typo (type) and graphy (drawing). So it means drawing with type.” Accordingly, *typography is considered to be the art of composing or setting type in a functional arrangement.* This may also include printing and appearance of type. On the other hand, the word typography is associated with meanings of words like *characters, letters, type, style* and *fonts*—whenever type is set to appear on a visual design.

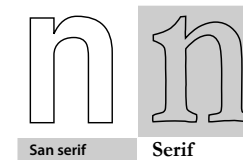
It is important to think about meaning and function in typography. Spiekermann et al. (1993, 54) inform us that “ever since, people have been writing things down. They have had to consider their audiences before they actually put a pen on paper.”

The type used on a design is therefore expected to be applicable to the matter at hand. For instance, targeted audiences include people of different age groups, sex, religion, lifestyle, culture and customs. As a graphic designer, it is essential to use—easy to read type, particularly when the message is written for very young children.

Fortunately, creative graphic designers today have a wide range of type to choose from. We can understand that from Galbreath's (2008, 36) assertions that “by choosing type faces and arranging them on the pages of your book: are the essential steps in creating an inviting and appropriate atmosphere ...” that conveys positive visual messages.

A careful look at fonts, type or letters unveils two types of fonts—*serif* and *sans serif*.

The serif fonts appear with detailed little extensions at the extremities of their corner ends and *san serifs* are regarded as fonts with an even (flat and smooth) stroke.



San serifs are good to use on headlines and for making bold statements because of their clean and simple appearances. Typically, the word *sans* comes from a French word *without*. (Buser 2005, 282)

Let us conclude with White's (2002, 103) view that “typography involves far more than working with abstract black shapes. In practice, typographic decisions ... should be nine out of ten times about manipulation of space around the letter forms.” This is a revelation that must be fulfilled by designers—even when they are creating layouts. Type has got to be legible.

How to use typography on a visual design

Nearly all creative artists with the ability to communicate through writing—use typography to convey their messages in various outstanding visual ways.

That is to say, typography deals with a large number of humanity signals which are recommended by our cultures, civilisation, language and nationalities. However, in Galbreath's (2008, 37) *typography and alignment*, he relies on "justified, centred, flush left and flush right" to achieve visual alignment necessary for arranging type.

Here is Galbreath's (2008, 37) manifestations of text alignment:

Flush right	Justified
Is not frequently used. But, it can be used for captions, minimal or insignificant notes and it can create an attractive relationship with different design elements on a page.	Is good for novels, it is the most familiar and efficient way to set main headlines. When the length of a text line is too short, the hyphenation and spacing will break in uneven way.
Centred	Flush left
It is good for (greetings card) small pages, headings, chapters and messages because it is active. Important words must be put on their own lines.	This is a modern way of presenting text, it is asymmetrical. It allows a good flow of words. It works well on narrow columns. The rough edges of a text must not form recognisable shapes

On the other hand, aligning of text does not only refer to *justified, centred, flush left* and *flush right* as indicated above. As a creative artist look for more or create your own typography alignments, colour, style and font formats "on chapters, headings, titles pages and cover typography." (Galbreath 2008, 37)

Let us make a quick review on how Brady (1989, 12-) uses creative "analysis of typography significance" to discuss the various outstanding ways used to communicate a message:

- a) Obtain knowledge or information concerning the audience for which the typography is going to be used.
- b) Never use decorative and flamboyant typefaces in texts; they are almost not clear enough to read. Yet, positioning them into a sentence is a very difficult task.
- c) Even if you want to achieve a common goal by using two typeface families, restrain from using those that are too identical. Besides, as a creative designer you can as well draw your own typefaces for any design.

- d) Some typefaces cannot be set in complete caps. That is to say, it is equally advisable to use a typeface that is reliably trusted by its qualities. For instance, Calligraphy typeface is good for shorter words or sentences such as, headlines in long texts. It is also good for paragraphs.
- e) Identify and specify the number of typefaces you wish to use for a design. If it is one, make sure that the one you have chosen can compromise with variety in terms of sizes.
- f) Find a clear or obvious type that will convey a reader's role so that the reader does not go beyond limits of seeing and reading. That is to say, choose type, which calls mind to your message. It should be prominent and visible on a design.
- g) If a designer chooses a typeface with a large x-height, it may appear large and to a greater extent deserted. Thereby, keep enough white spaces within bounds of a layout. Space applies to the approaches in which visual designs such as logos and monograms are created.
- h) Be aware of every typeface weight during the stage of design. Therefore, make printouts of the document where there are uncertainties.
- i) Keep away from composing large-scale structures of texts in italic or bold, they are not easy to read. Remember, some typefaces are used in customary ways.
- j) On headlines and sub titles, compare and make a decision on what to make point of (outstanding). For example, size or weights—as you compose a layout. And feel free to use more than size to create differentiation.
- k) Where possible, think carefully and put your considerations on counting characters to reduce the number of pages, in addition to costs if you are producing a booklet, pamphlet, leaflet, flyer, handbill, catalogue, prospectus and fact sheets.
- l) If you want to use a bold typeface in a distinctive design, be observant and careful before you act. Owing to the fact that a typeface chosen must at least retain the beauty of its companions.

- m) In conclusion, on any outstanding graphic design containing text—typefaces must be composed after spreading out distance or size on which the design will be set.

Calligraphy

The study of typography and graphic design is extremely large. As creative graphic designers, it is important to note that calligraphy is oftentimes hand written.

On the other hand, nearly all designers of calligraphy refer to this type of writing as *beautiful writing*. Swanson (2000, 144) concurs, "... calligraphy is more than simply a stylish fashion" of beautiful writing. Nonetheless, it is highly decorative and it contains text written with meticulous joins, links and connections.

Certainly, learners should be advised not to confuse (italics) slanted letters with calligraphy.

Almost always, calligraphy writing is commonly used on *stylish official documents, like certificates, manuscripts and greetings cards*. Such documents; written with calligraphy text—can only be read very near our eyes in order to translate their meanings. Hence, calligraphy message has got to be briefly stated in lowercase with full punctuation marks.

To achieve the whole idea about writing or scrawling calligraphy, a creative graphic designer is required to have a *flat-nibbled pen, or a soft flat brush, ruled paper and water-based ink*.

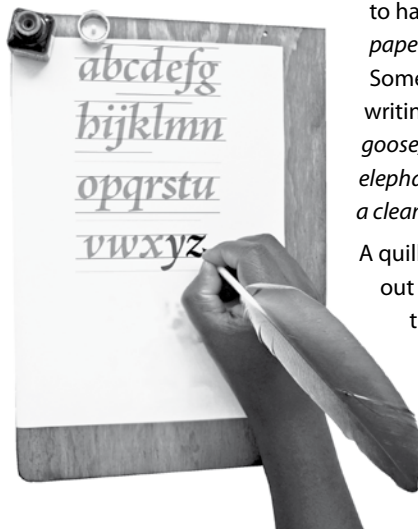
Some other basic tools used for calligraphy writing are; *flat nib or a sharpened quill (from a goose, raven, crow and a swan), bamboo sticks or elephant grass, quill ink or any water based ink and a clean piece of paper*.

A quill or a feather can be prepared by scraping out its thin membrane from inside. Then, cook the feather for some time with hot sand to dry out the natural fats.

Sharpen the calamus (the hollow lower part of the shaft of a feather) end part on a feather to make a nib. Other calligraphy writers use a reed for drawing letters.

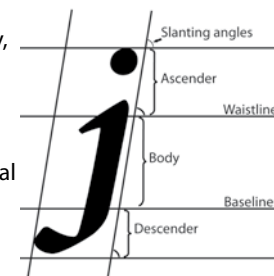
A hand making scribbles of lowercase calligraphy letters on a paper.

Materials: White paper, a feather and black ink.



In the opinion of Ashwin (1982, 171), "the reeds should be stored in a warm dry place." Accordingly, a reed meant for making a calligraphy pen should be stored for at least two months to dry.

However, in today's world of computers, calligraphy already exists as a font used by personal computers. Applications such as *Font lab studio* and very many others allow creative designers to explore the gallery of calligraphy fonts and to create or design fonts.



How to construct block letters

The procedure of constructing block letters necessitates drawing long straight lines, which result into a grid of squares.

Here is a possible approach in which block letters can be constructed.

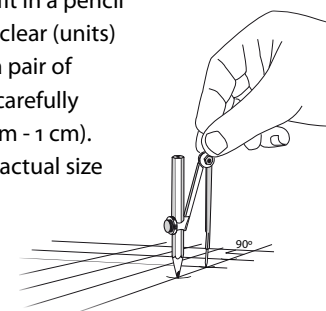
Open a fresh page in your sketchbook or find a *plain sheet of paper—at least size A3, a ruler, a pen or pencil and a pair of compasses*. Then, write down all the letters of alphabets from A to Z, in capital letters on one corner of the same paper (page).

Next, draw two lines to form a right angle measuring 90° with a horizontal line intersecting through a vertical straight line on one corner of the paper.

Pick a pair of compasses, on its pencil holder fit in a pencil and tie it well. Then, pick a straight ruler with clear (units) markings. Point the two parts; the needle of a pair of compasses and the pencil nib on a ruler and carefully measure any two units (for example, from 0 cm - 1 cm). The obtained estimations shall represent the actual size of each square. Get back to the sketchbook; put the set pair of compasses on the exact corner where the two lines meet. (Vertical and horizontal lines, already drawn at 90 degrees).

Move the pair of compasses step by step along the space on a single straight vertical and/or each horizontal line. The mark created on each line with a pencil shall appear like a curvature or enclosing brackets, which separate words from surrounding text—by twisting and turning the pencil. Then, on each generated mark (indicated as a bracket) draw lines on them to form a preferred square grid in equal sizes of squares.

The parts of a calligraphy letter or type



A hand constructing a square grid at 90° Angle

Materials: A pair of compasses, a paper, a ruler and a pencil

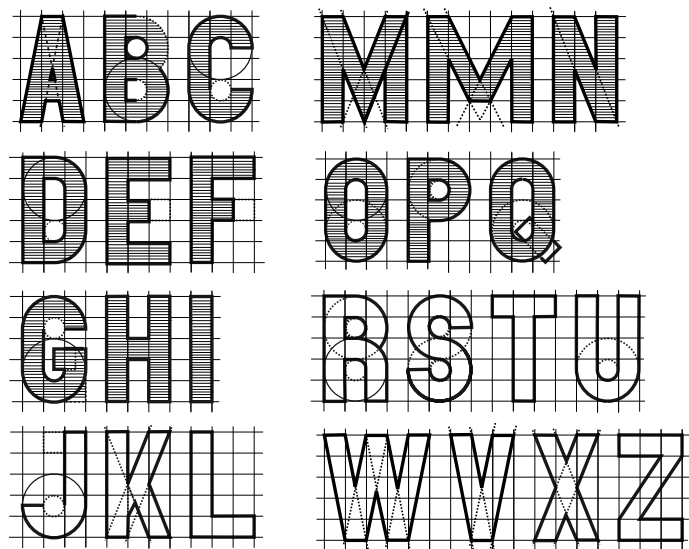
That is to say, the attained squares must be accurate and precise. Wrong lines (square grid) will lead to futile letter constructions.

We can use the categorisation set out in the table below to make a quick review of the number of squares needed to construct each letter of alphabet on a square grid.

Number of squares	Categories of letters
3×5	A, B, C, D, E, F, G, H, I, J, K, L, N, O, P, Q, R, S, T, U, V, X, Y, Z
4×5 or 5×5	M and W
1×5	I

However, after acquiring enough skills of drawing each block letter, the learner may also be encouraged to experiment further by doubling the number of squares to draw block letters in different ways.

In Ryan's (2001, 1) introduction about *Letter Perfect*: "As a basic building material, the printed letter is comprised of assembled shapes and forms ..." From this we can understand that the learner can also make block letters of alphabet and numbers with the help of general shapes. For that reason, observe each letter carefully before you draw to establish exactly the kind of shape or shapes needed.



Block letters of alphabet constructed by using a square grid

How shapes influence letter construction

During the process of constructing block letters, the series of steps taken sometimes necessitate drawing general shapes such as squares, rectangles, triangles and circles. For instance, circles can be used to derive corners and curves need for letters that indicate round corners.

As is evident, squares are mainly used for setting up a 'square grid' in which desired block letters can be constructed. By analysis, basic shapes can quickly be obtained from a well-constructed square grid in right arithmetical (square) values of 3×5 or 1×5 and 5×5.

Here is a table discussing ways in which general shapes can cause transformations, which reveal actual block letters:

General shapes	Types of block letters
Triangles	Block letters that lean on such a shape have got a 'V' component. They are: A, M, W, K, X, Y.
Circles	Not very many letters can be obtained by using this shape. A circle is mostly used to draw arcs or curves as well as corner parts of: S, C, D, J, G, O, Q, R, U, P.
Square	It is the major grid creator. This general shape does not represent a specific letter apart from providing the necessary assistance of constructing accurate block letters.
Rectangle	By counting from a square grid, a rectangle comes out of 3×5 squares. This shape commands a wider influence on letters such as E, F, I, J, K, L, M, N, P, S, T, R, W, X, Y, Z. Nearly all the letters listed here are supported by four straight sides and four full right angles in a vertical way.

After learning about general shapes and how they act to form block letters with the guidance provided by a square grid. We can now make a brief reassessment of wide and narrow types of letters using the table here below:

Wide letters	M and W
Narrow letters	J and I

Lowercase

The lowercase alphabets are constructed in a smaller form as compared to upper cases. In Swanson's (2000, 105) typography of *lower and uppercase*: "Words are perceived by their specific word-shape outline, which is unique for lowercase ... one researcher found that more reading errors were made in reading lowercase words than words set in all caps, indicating that all caps words are indeed read letter by letter, while lowercase words are not."

It is absolutely important for the learner to first of all look and judge the different ways—lowercase letters can fit on a well composed design or sentences before putting them to any final use.

Let us use the table below to make a clear analysis of the stylistic representation of lowercase (type) and how they appear with straight and round strokes:

Round and/or with a stroke	a,c,e,o,s
Round, straight strokes above and below	b,d,g,p,q
Straight, round and open strokes	h,m,n,u
Upright, straight with a single stroke	f,i,j,l,r,t
Straight with slanting or oblique strokes	k,v,w,x,y,z

Use a sketch book and draw each letter carefully. Pay attention to the extremely useful strokes (above and below on specific letters) be mindful of their individual shapes as well as the different ways each letter can cause an impact on a word or sentences. You can make your own grid of squares.

Layouts

This is an aspect of design that deals with arrangements of text or pictures on a set out page. Layouts are characterised by constant changes, they can be *vertical, horizontal or radial*.

A reasonable conclusion of a functional layout can be reached after considering expected outcomes of the final design, in addition to how the absolute layout shall be displayed. The effectiveness of a layout can be determined by the feasibility of its implementation to users along with their ability to follow a logical path of identifying the most important in a design created.

Lidwell et al. (2010, 198) assert. "In fact, complex information requires the simplest presentation possible, so that the focus is on the information rather than the way it is presented." That is to say, a layout page persistently goes through a process of arranging text, images or both for an optimal balance. This course of action is matched with various elements and principles of design. A careful look at newspaper layouts suggests a surprising display of well laid out text, usually accompanied by illustrations, both in different sizes and colours on different page displays. This causes ordinary readers to wonder how individual parts were delightfully co-ordinated to fit proportionally on each page without influences of misguided judgement.

Let us assume that the type of layout you plan is meant for a poster; vary the words or text accordingly and probably put emphasis to the most important—decide on what should stand out most. In Lidwell et al.'s (2010, 86) view, "the strongest exposure effects are seen with photographs, meaningful words, names and shapes and the smallest effects are seen with icons, people and auditory stimuli."



Layout A



Layout B



Layout C

- A: Symmetrical
- B: Asymmetrical
- C: Radial

We can conclude with Dabner et al.'s (2009, 42) enlightenment: "Your aim is both to present information in a logical, coherent way and to make the important elements stand out ... this helps the reader to absorb information in a visually pleasing way, which enhances the communication of the content" on a design of a layout.

Types of layouts

Layouts are different. Thereby, they exist in various complex orientations. Here is a general review of the various types of layouts:

- a) **Symmetrical layouts** are made up of parts that are exactly similar or facing each other. Graham (2005, 56) alleges, "Symmetrically balanced layouts are those with visual elements mirrored from side or from top to bottom." Generally, symmetrical layouts are habitually used in novels—on pages.
- b) **Radial layouts** are mainly shaped like a wheel or they often appear in circular form. They are commonly used for presenting radial graph visualisations. Although radial layouts are not easy to read, designers prefer them for logo designs. In other words, they are not clear enough to be effortlessly read. Look for the five-ring Olympic symbol.
- c) **Asymmetrical layouts** display parts or aspects of a design—not in an equally arranged manner. As Graham (2005, 58) argues, "creating such a layout is more challenging ... since each individual element used in a design must be considered." By careful analysis, asymmetrical layouts do not have an axial symmetry because they are spontaneous; they display an optimal balance that is delicate and difficult to analyse.

How elements and principles of design can be used on layout designs

The various ways in which creative designers put to use elements and principles of design on layouts naturally differ. According to Arntson (2011, 127), a "layout is a balancing act that creates unity among the diverse elements on a page ... unity can also be established by finding similar shapes, angles, values and typestyles." Comprehensively, then, on layout designs, a creative artist can effectively use elements

of design such as *colour, shape, texture* and *lines* to generate and/or organise design ideas in early stages.

Here is a review of elements of design and how they can be used on layouts:

Shape	Layout designers use <i>shape</i> to ascertain the orientation of a page. Some pages are used in a vertical (portrait format) or horizontal (landscape format).
Line	Is probably one of the most important elements of design commonly used on layouts. Line enhances the visual quality of style or type. It also produces an effect of the kind like; a reasonable spectacle of a well-planned layout
Texture	Can be formed with text or the main body of words. Otherwise, we can assume texture on a layout by analysing spaces between sentences and weight of text against headlines. Sometimes texture is established by dots and how they form images on distinct layouts. (See dpi)
Colour	It is used to enhance mood on layouts. Lidwell et al. (2010, 48) assert, colour "is used to attract attention, it groups elements, it indicates meaning and it enhances aesthetics." Here we see that even with a small amount of colour on a layout, a page can be visually enhanced.

Among others, layouts function well with principles of design, which apply to every single—specified arrangements or format. Besides a significant number of principles of design are used on layouts. Some of these include: *proportion, emphasis, rhythm and balance*.

Let us make a short review of the possible ways in which principles of design can be used on layouts:

Emphasis	It can be creatively used to call the reader's attention and interest by arranging the most important design aspects to appear prominent (stand out) on layouts and by using colour on text, making words bold as well as using vibrant colours on illustrations.
Rhythm	According to Michael (2006, 191), "artists use rhythm to give movement to the manner in which our eyes move over a work of art and to control the pace at which our gaze travels." In essence, rhythm brings about movement caused by abstract association of elements of design like lines and/or colours on a layout.

Proportion	It can be used to work out a balance of parts on a layout. That is to say, the importance of proportion on layouts is closely related with balance.
Balance	Allows stability and proper correlation of parts on a layout. That is to say, it makes a layout to appear in proper proportions and for a required design. Michael (2006, 191) asserts, "When the eye is attracted equally to the various imaginary axes of a composition, the design is considered to be balanced."

In spite of the fact that this list seems to be inadequate, individual demands of a layout design dictate the full extent of limits and choices of principles and elements of design needed during the process of arranging layouts.

Illustration

This is the pictorial part of a design. Illustrations can be produced as drawings, paintings, photographs as well as words or texts.

Some artists specialise in drawing illustrations alone. They make drawings in imaginative realism showing stories in a single artwork; using lines and tones or by painting in various techniques. To understand the art of storytelling—where artists use illustrations to compose and tell stories, look for *Norman Rockwell's* paintings.

In a spontaneous manner, nearly all artworks and designs done for advertising necessitate lively illustrations, effective use of colours and concise use of texts, on well organised layouts. Lidwell et al. (2010, 184) encourages us to "use the picture superiority effect to improve the recognition and recall of key information. Use pictures and words together and ensure that they reinforce the same information for optical effect. Pictures and words that conflict create interference and dramatically inhibit recall. Consider the inclusion of meaningful pictures in advertising campaigns when possible, especially when the goal is to build company product and brand awareness." Here we see that illustrations are necessary for remembering and they also help us to interpret messages as well as awakening our reactions.

Ashwin (1982) notes, "the illustrator must be able to read perceptively, to listen closely to verbal instructions and

generate a response which will enable him to make his personal contribution to what is provided by a client or outside source. Most importantly, this require showing careful consideration of both text, the verbal content of the brief and context, the situation in which the drawing is to be used, whether it is a magazine or newspaper."

This statement shows that, making an Illustration requires creative artists to make sense of written words in a design and the type of audience it is intended for. Thus, be mindful of the *culture, geographical location, social status, religion* and *age* for the readership or audience.

Learners who carry on school tasks are to a large extent advised to use, or paint illustrations with few colours; not more than three. In series of steps regulated by painting techniques—commonly referred to as flat colours (block or spot colour). A flat colour makes provision for printing with one type of ink.

That is to say, using poster colour to paint a design is a medium preferred by nearly all art and design schools, which engage in executing design tasks involving painting on a surface like a paper. Poster colours are different from other transparent watercolours, as they do not rely on the apparent brightness of the paper for their tints. Otherwise, poster colour can only be tinted by mixing or adding more white paint to lighten the base colour, or add black to darken it. The ideal reason of encouraging—use of (spot) flat colours is that; it is cheap and less complicated to print. As a learner, stay away from using *markers* and *pens* for the *time* of painting your graphic design or artwork. Do enough practice by painting with a brush and water colours in order to improve your skills of painting and mixing colours. Poster colours are very easy to mix in small amounts of water and you will have both high quality and high quantity, which is enough for a decent smear to paint a fairly large size area of a design. *Markers* and *pens* can only be endorsed for writing—in some hard to reach areas of a design as well as enhancing decorative treatments. Whenever *markers* and *pens* are used for painting a design; they tend to show differing varieties of regrettable tonalities of non-uniform colours. Nonetheless, markers and pens do not provide subjective judgement to examiners who aim at preparing learners with adequate skills of mixing and applying different kinds of paints.

Types of illustrations

There are very many types of illustrations or pictures well adapted for specified purposes or to be used in various designs. The most common types of illustrations are those that we see with a title or a brief explanation appended to explain them, other illustrations work on their own. "Pictures are remembered better than words ... it is said that a picture is worth a thousand words and it turns out that in most cases this is true" (Lidwell et al. 2010, 184). Most importantly, illustrators compose illustrations for companion graphic designs—which function in different ways such as:

- a) **Pictorial with text** illustrations show a single word (into) the actual design. Sometimes such illustrations are not easy to read/interpret because they are usually created to depict a definite image of a representative design. That is to say, a word or its meaning is designed to appear as the actual illustration or the illustration is represented as a word.
- b) **Textual illustrations** are speciously made to appear like a decorative pattern, repeated with a text or a word. Some designers use textual illustrations as a watermark text. It is typically used on (paper) bank notes when un-authorized usage is suspected. Hence, they are made in different ways for various purposes.
- c) **Silhouettes** are illustrations, which appear in shapes alone without details. They are typically shaded with one solid colour (usually black). Creative artists or designers generally use silhouette illustrations to make logo designs.
- d) **Cartoons** are illustrations of fine art images sketched or painted in a humorously exaggerated way. In every case, cartoons are made for entertaining—in depictions of humans or animals, cars as well as everything else found in our normal surroundings.

Cartoon illustrations are commonly found in newspapers, comic books and magazines. In a different way; also on television broadcasts. Read further about *gags, animations and comics*. They are topics for further enquiry.



Textual illustration



Pictorial with text illustration



A cartoon

- e) **Pictorial illustrations** can be found in newspaper or magazines, which contain many pictures. They can be photographic or realistic hand drawings—considering beauty and correctness. For the most part, such pictorial illustration are drawn or painted for use in classrooms during teaching. Like all other illustrations, pictorial illustrations can also be used on commercial posters.

How to make an illustration

Not only artists or designers make illustrations. In some way each one of us has done an illustration to clarify a statement or explain a situation in a comprehensible way—without conscious reasoning.

Prust (2010) notes, "Illustrations add another dimension to the layout; they can increase an understanding of the product, as well as interest in the product." They are important artworks of a design. For, they make a design attractive and clear.

To create an illustration, start by making ready a fresh page inside a sketchbook and by using a sharpened pencil or pen, draw a translation of a pictorial representation in outlines basing on the set out views and narration of a chosen task. For example, if the task you are carrying on is about a fashion show, the illustration must indicate some distinctive attributes of fashion. This may as well include certain symbolic meanings—to colours chosen for the final design. Or if the task has mentioned that is a "birthday" then, the colours chosen must at least describe fun. Where possible look out for ideas from some of the already done sketches in your sketchbook to supplement with those you already have. Other sources can be newspapers, books and magazines. Make several sketches.

Illustrations can be done as painting artworks, collage and weaving. They can also be combined with text. Make sufficient consultations from friends about which illustration would be better than another.

Some illustrations are meant to be done in collaborative projects to achieve particular learning aims. That being the case, ask for advice or comments from a decision maker at hand, or art director about where to choose from and why.

Basing on the opinions provided, make possible changes before adding colours. Avoid proximity of strong colours—near the illustration. In other words, leave some empty (white) spaces. Empty gaps or spaces are absolutely necessary for they result into breathing space.

According to Larned's (1925, 99) *importance of white areas*; "The illustrative feature will profit by white space. In many instances, the picture without a background is vastly preferable to one in which every inch of space is cluttered." White areas provide the eyes with breathing spaces. Thus, even as it may be essential to use strong colours in a design, knowing how to use them—has a profound effect on the success of a destined illustration or design.

How to explain a visual/identification symbol

It is not so easy to assign a particular meaning to each and every visual or identification symbol, except if a designer started by trying to examine some hidden facts concerning particular details found in each one of them.

Hidden facts are almost certainly used as the guiding aspects which stir up actual meanings of an existing visual or identification symbol. For instance, we all see letters as individual characters, but characters are concrete symbols. They hide meanings and functions in abstract symbols. But it's not until graphic designers make a clear translation of those meanings that observers and readers will manage to interpret them.

Equally, as we have previously stated visual or identification symbols MUST be brief, simple and easy to interpret.

In Lidwell et al.'s (2010, 288) *Stickiness*, "simplicity can be expressed simply and succinctly, without sacrificing depth." That is to say, visual designs and identification symbols are easy to understand when they are depicted with "clarity" or "straightforwardness." On the other hand, it is as well fundamental for a designer to make efforts of testing

the obtained design in small, or in suitable large sizes on surfaces that cause delight and satisfaction to a prototype.

On the contrary, visual adaptations such as trademarks, word messages; are ordinarily associated with one single word logo. White (2002, 242) states that a logo "comes from a Greek term." It is "widely used to indicate all corporate trademarks ... or a combination of marks (symbols)." For this reason, do not be surprised to find a badge, an emblem, coat of arms, monogram marked out as a *logo*.

Certainly, visual adaptations of identification symbols, which are easy to understand, support a rapid mutual comprehension for users. Moreover, throughout the course of designing visual and identification symbols, it is sometimes necessary to integrate some *details of deception* to avoid forgeries. Thus, will put control to un-authorized reproductions.

In conclusion, the meanings of words stated in the tables indicated below are only relevant and limited to academic or educational objectives. Altogether, some explanations may reveal exact meanings as proclaimed by the following books: The Penguin, *Dictionary of Art and Artists* (1997), as well as *Macmillan Essentials Dictionary for Learners of English* (2000).

Monogram	It is a decorative design created by using the first letter of one's name, institution or company—in an interwoven way. Monograms are easy to make if a designer is excellent with drawing letters or writing calligraphy. - Make a list of monograms you know.
Emblem	It is a symbolic object—designed for well-judged aims or aspirations. Emblems serve specified groups of people, associations, a nation, a family and organisations as visual representations. - Look out for examples of Emblem items and list them.
Sticker	It is almost identical to a label because it functions by sticking it onto a surface; of a car body, medicine containers and foodstuff packages. In our case, a sticker is a piece of (plastic) paper used for decorating surfaces. It is commonly used to show visual information, pictures and words. Today stickers are used for advertising; on billboards and signposts.

Certificates	Are numerous. Our focus shall be set on documents awarded for certified achievement and by the virtues of <i>marriage, birth, sports and ending an academic course or training</i> . Thus, a certificate is an official document used, or issued by authorities to provide clearance as well as evidence that particular facts are true.
Cassette/ CD slipcase	Is a small piece of paper used inside—under a CD pack to cover and classify compact disks, or a cassette tape and to reveal its contents and name. Cassette slips routinely show <i>a cover image, titles and lists of files, documents or album's title tracks</i> . For instance, a music CD slipcase puts on display lists of songs as well as images of the implying musician or contents.
Notice sign	It incorporates a wide range of meanings. Some notices are found on pages of newspapers or magazines, even on public message-boards. In our analysis, a notice sign is a displayed sheet or placard used for showing important information and message to the public or concerned people. Notices are also used for public warnings. For example NO SMOKING, NO WAY THROUGH and DANGER et cetera.
Road sign	This is a word commonly used to explain <i>traffic signs</i> . Road signs provide useful information to pedestrians, drivers and riders by displaying clear functional visual symbols. They are sometimes designed from <i>a single letter, a single image or a brief text</i> . Once in a while, they display itemised images, in brilliant colours—to work as symbols in replacement of long sentences or words. And they are specially designed to suit various international standards like; <i>upright positioning and placement at specified road side areas</i> .
Brand	A brand can be a supplier's name given to a seller (retailer) to sell its products or services. For example, <i>Bata (for Bata shoe company) and Shell (Petroleum company)</i> . Steele (2010; 848) uses a perplexing explanation that “a logo is the point of entry to the brand.” As an example <i>Coca-cola and Pepsi-cola</i> are seen as logos but they represent brand names for soft drinks. Occasionally, a brand is used as the identifying mark to promote a range of products belonging to the same area. - Read further about a brand in order to compare label, trademark and logo .



An image showing a typical arrangement of a billboard.

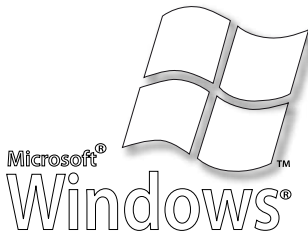
Coat of arms	It has some similarities with an emblem. Chorzempa (1987, 6) offers a rational explanation: “The most important component of a coat of arms is the shield. Almost every shape has been used, both in heraldry and in combat ... the surface of the shield is called the field ... Men alone used a shield in their heraldry achievements; because it was used in a warfare in which women did not participate ... women used lozenges.” This tells us that coat of arms are commonly found with a shield and other armorial bearings described or regulated as symbols for a person, family, corporation, country, place of worship.
Billboard	It is a huge display used for outdoor advertising. Billboards typically display three aspects: (i) <i>the name of a product</i> , (ii) <i>an illustration</i> and (iii) <i>a slogan or catchword</i> . Billboards are meant to remind and to inform the <i>public, consumers or buyers</i> . Korza & Magie (1989, 69) concur, “Billboards are useful to remind the public but they are not effective for first time information.” Thus making most of the design aspects found on common bill boards to appear straight forward—for easy interpretation, in well suited displays, in public places, spaces, or a spot/location near main roads, for the reason that readers of billboards are by and large commuters, motorists and travellers. - Read more from outdoor signs. Or compare a billboard with a sign post and state their differences.



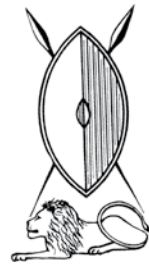
Logo



Monogram



Trade Marks



Coat of arms



Label



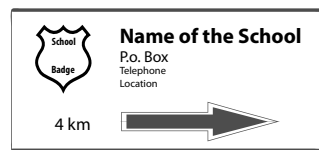
Road sign



Notice sign



Signposts



<p>Trade Mark(s)</p>	<p>It can be a registered brand name, symbol, words or message that stand for a particular company commonly used on its products. A trademark is recognised by a conventional mark to indicate that it is legally protected. Examples of such a mark are represented with ® to mean registered, (TM) or ™ standing for Trade Mark. - Try to single them out from a few design items near you.</p>
<p>Banner</p>	<p>In our set of circumstances, a banner is a wide piece of cloth suspended between two poles to convey a printed message; using few words and attractive colours. In another way, banners also appear on distinct visual designs and identification symbols such as <i>badges, emblems, newspapers</i> and <i>web sites</i>. - Read more about banners before you go ahead with any assignment.</p>
<p>Logo</p>	<p>According to Gilmurray (2010, 11), "A logo is your brand name ..." Not the other way around; 'A logo is only a brand if it's on a cow.' Hence, the word logo has numerous meanings. It is can be designed from a name, ambitions, ideas, numbers or letters as a distinguishing symbol representing an entire word. For example, Cel-Tel (the word comes from two statements <i>Cell phone</i> and <i>Telecommunication</i>) - Make a list of logos that you know.</p>
<p>Labels</p>	<p>Carry a wide range of meanings. Labels can be made to work like stickers or tags used on the sides of packages and other items to show information, instructions and contents belonging to individual products. Also, a label can be used to display a brand name, trade name, trademark, product make and a logo on displayed shop items. Make your own analysis about labels and list some of the examples you know.</p>
<p>Stamp</p>	<p>They are very many types of stamps designed for different purposes. In this discussion, emphasis shall be put on small pieces of papers, which are mainly bought to be stack on envelopes in order to pay for the costs of posting a letter or parcel. As a creative artist make sure that the final results of your stylistic representation of a stamp is closely connected to the demands set by the task. - Mention or list in detail the types of stamps that you know.</p>

Signpost	<p>It is a display used to guide road users. Occasionally, signposts are set out to show information such as; the <i>location and name of a place</i>. They are found on road-sides, crossroads, paths, or streets to lead users to specified destinations with clear <i>text</i>, or illustrations. Some signposts display additional contact information like the address, phone and email.</p> <ul style="list-style-type: none"> - Does your school have a signpost? - Compare a signpost with a road sign and state their differences.
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We can make our conclusion with Smith's (1993, 58) *Basic graphic design* to summarise visual and identification symbols; "The graphic requirements ... may not need many images. The design is possibly intended to clarify and organise with a concern for continued reader interest ..." All this must be carefully understood by learners before embarking on any new graphic design artwork, task or assignment.

How to design a card

There are so many types of cards; some cards are made with decorative borders in small sizes and/or sometimes in larger sizes. However, nearly all standard cards display a single side or double sides containing meaningful messages, illustrations and information intended for various set out aims.

Thereby, cards are different and they are created for very many purposes. For example business or visiting cards, greetings cards and Christmas cards. We can take a double page success card as our example. Such a card will display two sides just like book covers.

Success cards show messages and many of them are designed to display relevant or connected colours as well as illustrations; basing on functions and purposes they are meant to serve.

Accordingly, inside a *success or a greeting card*, messages are usually evocative. That is to say, the message written in a card is expected to bring strong memories or feelings to the beneficiary or receiver. And outside on the cover of a card, the message is usually (or supposed to be) brief and precise, sincere and well-expressed.

Even though illustrations are routinely found on the front part of a card, the ultimate methods of executing a

successful design is up to the inventiveness or creativity of the designer. Above all, some creative designers use approaches of collage art to produce cards.

In general, read and understand all instructions stated for a specified card task or theme. The most important thing for the designer is to pay attention to the title (theme) of the card. For, it will guide you to determine a suitable illustration, colours and text. Then make decisions for the most appropriate orientation. A card can be designed in vertical or longitudinal orientations.

At an appropriate stage of incorporating text Galbreath (2008, 37) suggests, "the formal character of centred text also makes it appropriate for wedding invitations, ... and the type of verse that appears inside greeting cards." Here we see that the appropriate way of presenting messages in a card, is by placing it in the middle. At this stage a designer is expected to assess the suitability of calligraphy writing for a card in plan.

In a subsequent way, compare the executed design with other types of cards, which may be reasonably similar to the one you are making. Then, do necessary changes.

As you work to execute a card, take the sketch to various concerned people for more advice, opinions; exchange views about your design plan. It does not matter even if they do not have rational ideas about the card. The discussions or critiques can help the learner to see errors, thus minimise misinterpretations.

Considering that everything is properly done, finish and make the card ready for display.

How to design a poster

Posters are sometimes referred to as billboards. To a bigger extent, posters are habitually used for outdoor advertising. Posters can be produced by ways of—*photography, lithography, silk screen printing, block printing* as well as *digital printing on large-format printers*.

The main purpose of a poster is to visually communicate printed or written message.

As a consequence of that, posters are typically displayed in public places. They are expected to be striking and noticeable. A poster is considered to be among the most suitable means of making announcements and advertisements intended to inform the general public.

Michaels (2010) points out some “five characteristics of a good poster” using the following design expectations:

Does the job quickly	The poster must be attractive enough to bring in your targeted customers.
Gets reader's attention	The poster must be interesting with enough formation that pertains to suited subjects.
It is convincing	The message is short, with strong statements to back up what it claims.
Simplicity	The most effective posters are surprisingly simple and straight forward.
Effective use of colour	The poster must contains a colour scheme, which can attract more viewers.

Subsequently, a poster can be designed to carry “... a single image and three words of texts ... to be powerful enough to encourage members of the public to kill themselves” Barnard (2005, 3) laments.

Distinctively, posters can as well work like transportation signs. Although, by asserting the opposite—*transportation signs* are in general designed to appear like small posters for the reason that, they are displayed inside passenger trains, buses and taxicabs. Sometimes they serve as small stickers containing longer or detailed messages. Reason being, travellers or passengers have more time to read the messages (they bear) during the course of a journey. Ultimately, learners should be warned about the dangers of making small and horizontal posters.

Such posters do not allow fast drivers or concerned pedestrian to have a proper or satisfactory glance—to read and interpret a message. That is to say, it is strenuous for targeted readers to peruse or read a horizontal poster glued on a utility pole by walking around. Thus is the apparent reason as to why the majority of posters are designed to be displayed in a vertical way; to fit well on advertising boards, walls, walkway and trees in public places— along visible street spots.

If the purpose intended for designing a poster lies on an event such as a concert, include the *date, ticket prices, a venue* as well as *illustrations or images*. Thereby, a creative artist may choose to greatly pronounce the name of the most famous person—who will steal a march on events to come.

We can conclude poster designing with Lidwell et al.'s (2010, 198) “readability” principle. They remind us to “express complex ... in the simplest way possible by following guide lines, which can enhance and verify readability level and approximates of the intended audience.”

How to design a badge

Badges are creatively composed in very many well-judged design plans. Designers who create badges start by acquiring and developing a clear enlightenment of purposes or functions of the expected design. Some badges are made for *schools, army or police* and *organised societies, businesses and associations*.

Sometimes designers confuse badges with emblems because they are not easy to distinguish. As a creative artist, it is essential for you to understand that before you begin to sketch. Exchange cognate views with a person concerned. It can be a teacher, friends, or the owner of a badge; to clarify and/or review the purpose of the design as well as its appearance.

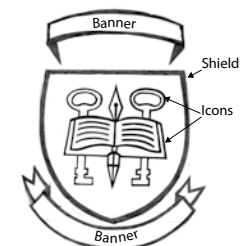
At this stage Mead (2008, 30-31) suggests, “investigate the symbolism of your school ... badge. Inspect closely and thoroughly the hidden messages in a range of logos or symbolic colours of clothing” for instance uniforms. They will guide you on how to identify icons, which shall appear in your design of a badge as well as necessary colours.

Certainly if a badge is designed to promote the identity of a school or an institution like those mentioned in our previous analysis. Put some obligatory attention to symbolic colours which tie-up with the matter at hand.

Most schools share instructional mandates and activities. For example, nearly all schools provide knowledge and skills through education to improve the intellectual capabilities of the learner. Thus, all this and more can be used to formulate some desired icons for a badge.

Lidwell et al. (2010, 132) remind us that “iconic representations reduce performance load ... when representations are to be used ...” That is to say; your planned badge should display a summary of some desired ambitions that are relevant to the stated subject matter.

A specimen of a school badge



By understanding the definition and process of making a badge, the same series of actions can be adopted to design emblems, trademarks and logos, "... if you favour simple elements and icons that are rich in meaning." (Lidwell et al. 2010, 190)

On the other hand, even though some school badges are designed to display icons that represent common shields, banners, keys and books. Such ideas are conceptual. Essential ideas and proposals for a possible course of action are based on individuals' creative decisions.

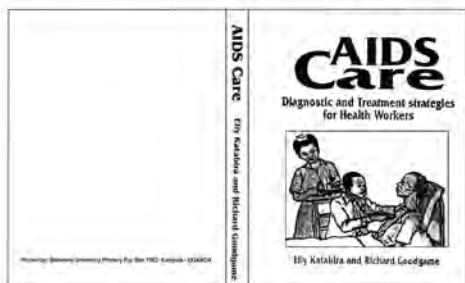
How to design a book cover

A book cover is a thick protective outer page of a book.

Galbreath (2008, 42) is more enlightening: "If your book is for sale, the cover is an essential marketing device that will function like a logo and advertisement. A book cover must look great—inside a book store and on the shelf. It also has to look good when it's a tiny digital image on Amazon and other online sites." For that reason a book cover is the main aspects of admiration for any book. Nevertheless, without a cover there is nothing we can know about what the book may contain.

Consequently, on the **front** part of a book cover, it is reasonable to find the *title, illustration and names of authors*. In the opinion of Bjornard et al. (2008, 56), "the title of a book does not have to be huge." In spite of that, "it must stand out." Designers achieve this by "creating variations of colours and contrast" on the cover of a book.

The middle part of a book cover is commonly referred to as the **spine**. Binding makes page hinges to get fixed on a spine by ways of stapling, gluing, tying or fastening et cetera. Nonetheless, not all books have spines. Books without spines include, newspaper pull outs and tabloids.



An example of a book cover layout

The main purpose of a *spine* is to fascinate a user of the book. The spine can be used to display a title, name of the author, editor, the publisher and/or the publisher's logo. They are all necessary to serve the user of the book when it is put on a display shelf.

At the **back** part of the book cover—it is the page area where we sometimes find a written summary about subject matter fulfilments; *explaining the biographical matter about the author of the book or quotes from people and other sources praising the book*.

In instances where the *author's portrait* is required, designers usually put it at the back page of the book cover. As a learner, place a great deal of emphasis on the requirements set by the task.

Some book covers are occasionally protected with **book jackets** (*dust jacket or a sheath*).

Here is a set out table providing a concise and clear summary of a book cover:

	Back	Spine	Front	
Flaps for a sheath	1. Publisher's logo and name	1. Title	1. Title	Flaps for a sheath
	2. Subject matter fulfilments	2. Author 3. Publisher's logo	2. Author and/or edition 3. Illustration	
As a creative artist you can use your own ways to put the illustration. For instance, it can be created to stretch out and fill up the whole cover or put it at the front part alone.				

A book cover and a dust jacket—both, may usually contain resembling designs, although book jackets have extra separate sections commonly known as *flap overlaps*. Flap overlaps are loose extensions of a book jacket; they hold it up well by wrapping the surface of an actual book cover to keep it safe from easy wear and tear.

To make a book jacket Harden (1996, 34) remarks, "measure round the book from cover to cover, including the spine using your ruler and pencil mark this width on the inside of the jacket paper, allowing an extra margin of 2 inches (5cm) on either side. Trim the jacket to the right size." Here we see that the learner will as well gain the skills of creating covers necessary for his or her own school books. Such a cover may not necessarily have a design which matches with the book cover.

The ultimate goal of designing a book cover is to attract or to capture attention and to awaken our interest of finding the book up and read it from a shelf.

Bjornard et al. (2008, 56) discern this point: “the cover is the first thing; a potential reader will see ... book covers help to sell books and make them memorable.” Hence is the reason as to why book covers should be highly appreciated.

How to make a repeat pattern

A repeat pattern is a design created with the help of a motif. The word repeat pattern can be defined separately in this way. Repeat to mean *reproduce* and pattern to explain *decorative design*.

Repeat patterns give rise to sets of designs created from a motif; repeating in a delightful manner on appealing surfaces such as *fabrics, curtains, wall papers, carpets, table cloth*. In Linderman's (1984, 188) view, “a repeated pattern is often involved with other qualities, such as colour, line, shape, positive and negative spaces, lights against darks. In nature we see patterns everywhere—a branch, a group of flowers, the cluster of leaves.”

Clearly, then, creative artists who wish to come up with fascinating repeat patterns—start by creating motifs—identified from anything just for a *source of inspiration*. As we have already mentioned, nature boasts with a greater abundance of essential ideas which can be sketched to turn them into motifs necessary for executing repeat patterns. For instance plants, insects and animals can be sketched as a *study or studies* to form a design for a repeat pattern.

Accordingly, the obtained sketch can later be adjusted in order to reach a desired standard of performance suitable for creating a motif. Almost always, nearly all sturdy ideas composed for a preferred motif—appear as abstract and sometimes silhouettes.

Thus, do not fear to purposefully exaggerate your ideas at the stage of developing a sketch. Make sure that the motif you have created holds a meaning that relates to the prevailing subject matter. That is to say, at the lowest estimate a repeat pattern meant for a hospital wall paper should show images and colours that symbolise healing and well-being.

Remember that a successful repeat pattern appears well with correctly balanced negative spaces and sufficient

positive shapes as well as repetition of textures. Eventually, if a design of a motif is well composed, it will repeat well at the stage of printing particularly if it contains registration marks or corner crop marks.

Torbet (1980, 312) asserts, “... registration marks must be planned in advance for all printing procedures. In planning the repeat pattern, the way in which each repeat unit will join ...” We can conclude from this that, it is important for the creative artist to add registration marks on mandatory parts, which are capable of working successfully for a design of a motif created. Thereby, the repeat pattern shall attain sufficient alignments during printing.

How to compose a wrapper

There are very many different types of wrappers. Common wrappers are those that we use for packaging shop items sold in retail and wholesale shops. Wrappers can be designed in different ways, sizes or shapes; to protect and dress various kinds of products. For example, they can be made to look like boxes, envelopes as well as bags showing decorative designs of products they carry.

And they are usually made out of different types of materials, impressive and identifiable colours. The materials used include plastics papers, metal tins, recycled paper and cloth. According to Eiseman (2003) “graphic designers who develop packaging for consumer products, use the brightest intensities of complementary colours.” To cheerfully attract the unsuspecting buyers.

Most wrappers are ornately—made using well decorated papers presenting intricate shapes, complex patterns and symbolic illustrations, colours and phrases. Unfortunately, it is typical for a wrapper (paper or plastic, or packed in a box) to be used once.

According to Natarajan et al. (2009, 3) “in the most familiar form, a package is a simple box on the grocer's shelf or the wrapper on a candy bar.” Here we see that unlike gift wrappers, packaging wrappers consist of sides decorated with a label, sometimes a brand name or a trademark, an illustration and text with information explaining the content inside, on an existing package.

Ultimately, for any creative artists attempting a task regarding wrappers, stick to basic information and details stated or required by a task given.

For instance, in many situations packaging designs end up as three dimensional designs. Thus, a design created to serve as a wrapper is not likely to appear like the one meant for a package.

Natarajan et al. (2009, 2-3) add, "Packaging has also been described as complex, dynamic, scientific and artistic ... It is constantly changing with regard to new materials, methods and machinery resulting in better quality products which open up new markets ... At the user level, the needed value for the added function is different relating to the opinion about waste accumulation, energy and use of scarce resources." We can conclude from this that, by designing a wrappers we are literally making a package.

Computer aided printing

The main features of computer aided printing are hardware and software. By software we mean computer programs or applications used throughout operations. Well as, by mentioning hardware we are referring to tools, equipment and machinery. The most important thing about computer-aided printing is high speed, ability to track the work process and beautiful final designs.

Hastings (1986, 3) offers a rational explanation: "Before using the advanced computer aided design applications ... you must at least be familiar with the basic ... operating procedures such as clicking, dragging and selecting and know what is meant by dialogue boxes, windows, icons, menus and so on." Undoubtedly, then, a creative graphic designer who is planning to work with computer aided printing is at a minimum expected to have necessary computer knowledge. Kenly & Beach (2004, 74) assert, "images on paper consist of patterns of cyan, magenta, yellow and black dots: CMYK for printing.

This is how CMYK and RGB appear:

C	Cyan	<i>Blue</i>	R	Red
M	Magenta	<i>Pink</i>	G	Green
Y	Yellow	<i>Yellow</i>	B	Blue
K	Black	<i>Black</i>	RGB colours deal with light like; display monitors, photo films and ink-jets	

Colorants and toners create different colours by blocking, or subtracting, different portions of the white light reflected

by the paper that they are deposited on." Regardless of the high speed and the good quality brought about by computer aided printing. The process allows the operation of printing direct from a computer to a digital printer or a plate-making machine.

Black is regarded as the most important colour of CMYK used by commercial printers—in the printing industry. To the same extent, many office documents are usually printed by using a desktop printer. While, "the two most common types of printers today include laser printers and ink-jet printers ... A laser jet type of printers forms images with toner powder (ink powder) and ink-jet printers form images with liquid ink" (Morley & Parker 2009; 173)

Clearly then, computer aided printing is supported by technology and it is highly industrial. As you continue to read about printing, you will discover very many new and advanced methods as a result of new technology. Make further consultations from people involved with computer aided printing to learn more.

Methods of printing

A wide range of printing methods and techniques have existed before. For instance, letterpress and offset printing are among the many methods which belong to the very distant past—of the common methods of printing. Nonetheless, today printing can be done straight away from a personal computer or a mobile phone to an all-large format digital laser jet printer.

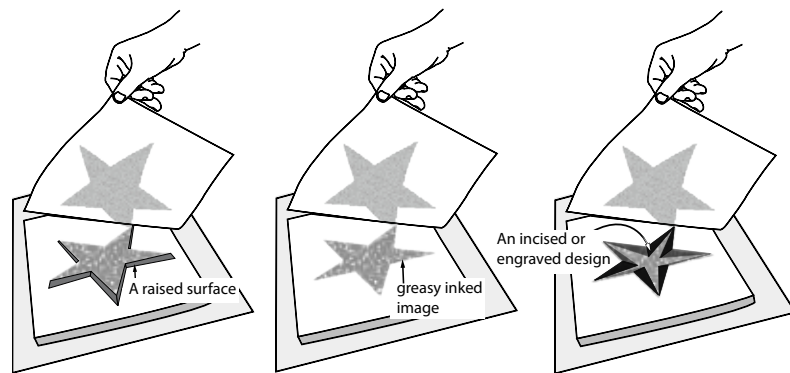
Let us briefly examine the three basic methods used during printing:

- a) **Relief printing** is a method of printing done on a raised surface—and then, it is transferred on a paper, fabrics, plastics or any other impervious materials. Relief printing can be done in the same way as woodcuts, or wood engraving, relief etching and linocut or lino block. More than two colours can be used in relief printing as long as a neutral colour band is left until a later time to set down first. To a greater extent, the process of relief printing uses a similar principle as an inked block of a stamp.

b) Intaglio printing uses an incised or etched surface. The actions and process of printing involves pulling ink out of the narrow (cut) engraved holes. According to Board (2002, 342) "... images are engraved or etched below the surface. Ink is filled up in the recessed portions. The top surface is wiped clean. Ink from the recessed portions is transferred on paper." Here we see that the surface of a plate is wiped clean leaving ink in the sunken area. During intaglio printing, images are transferred to another surface with heavy pressure machines. It can be considered as a direct opposite of relief printing.

c) Planographic printing uses a chemical process as a mechanism for producing prints on a flat surface in dislikes of water and oil—repels to resist each other. Board (2002, 383) explains that "... planography conveys the meaning that the printing areas lay in the same plane ... It uses similar principles just as "1. Lithography principle, 2. Offset principal." Hence the images are printed from a flat surface on same level surfaces as the areas without images.

d) Stencil printing is also known as serigraphy or silkscreen printing. Jenkins (2010, 280) argues, "In the world of visual art, this technique is called pochoir" (in French *pochoir* means "stencil"). A stencil material necessary for making prints can easily be obtained from a strong piece of paper or any other thin material fit to be glued, stretched straight on a flat surface. By using a squeegee, ink is pressed to pass through the open holes of a stencil (negative parts) against blocked (positive) areas to form a design.



Relief printing

Planographic printing

Intaglio printing

Commercial printing

As stated by Galbreath (2008, 116-125), "budget, quality and content influence a designers personal skill set, access to materials and equipment and how much to invest." All these and more are for the most part essential during commercial printing.

Let us use a supplemental review from Galbreath's (2008, 118) *Types of printing* to discuss some possible ways of achieving commercial printing by using a table checklist here below:

Photocopy	This is one of the fastest and cheapest way of duplicating text and images on the surface of a paper.
Ink jet/colour laser	It is not cost effective for larger editions but it can provide full colour images by hit of a print button.
Offset lithography	It is standard for commercial printing, it is also ideal for large quantity prints. Here, printing-plates are required for transferring each colour during printing.
Screen print/serigraph or silk screen printing	It can be used to print very thin texts and details on surfaces like paper, fabrics, glass, metal and plastics. This method of printing is too physical. Apart from that, it cannot be used to print books.
Digital/Print On Demand (POD)	During printing, digital files are interpreted electronically—quickly with minimal prep time. This method of printing makes short-run jobs less expensive than offset printing.
Letterpress	It is excellent for printing fine details and small texts. Also, It works with wood and metal type. Even when files are digital, they can be easily converted into a film and burned onto polymer plates to be printed.

We can also find more about printing from Jenkins' (1980, 147-150) *Art for the fun of it*: to learn more about basic printing actions necessary for creative print making "... from simple to the complex."

Sticks or wood	By cutting designs on the surface of a wood or sticks; ink can be smeared on them to make prints by rolling, twisting, sliding and then, by ways of stamping, a print can be made on a provide surface.
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Soap and wax	Just like an eraser (rubber), designs can be cut or carved using a stick or a knife on the surface of soap. Add Ink and then print.
Rubber and cork	Because of their soft tissues, designs can be easily cut on them. Certainly, most of the available ink materials fit well on a rubber or cork surfaces for the time of making prints.
Vegetables and fruits	Carrots, cucumber, onions, green pepper, mushrooms, oranges and potatoes; cut the fruit and immerse the clean and/or smooth side—indicating a design into ink. Then print.
Printing with a sponge	Cut a sponge into different geometric shapes of your choice; immerse the shapes in paint or ink. Carefully, make prints by stamping on a clean paper surface. Read more about a <i>Loofah sponge</i> in <i>Painting Techniques</i> .
Cardboard paper	Shapes of designs can be cut from a cardboard to be glued on another cardboard surface to appear like a raised shape of an image or picture. By using a brush, paint can be smeared on the image. Place a paper on top. Lift it off carefully after some time to see the executed print.
Leaves	They are among found objects. They can be glued on a cardboard and by using a brush apply paint or ink on one side of the surface and then print. You can consider natural objects like seaweed, feathers or shells in a similar way to make more printing experiments.
Mono printing	This method of printing produces one print. Although, it can accommodate lots of colours. An image with varied colours is put below a clean glass panel, by using a small brush and oil paints; you can paint again the same image on the top side of the glass. Then, place a clean paper or cloth on the executed artwork—remove to check your attained results.
Others	A creatively adorned rolling pin, carbon papers, fingers/hands, wires, a squashed paper et cetera. All these and more can be coated with ink to achieve some basic knowledge of creating an artistic print.

In Jenkins' (1980; 146) view, "having the children walk the potato (or whatever tool) across a paper and back again, in orderly even steps" gives a good learning experience.

We can conclude from this that after this exploration, the creative artist shall have enough and necessary knowledge for future decision making about possible way of making a print.

Advertisement

Advertisement can simply be defined as *announcing*. Thus, it can be done for *social, commercial, political and very many other notable reasons*. Announcing or advertisement helps to inform the public and it also gives publicity to products or services using different attention catching means like a television, radio and notices on message-boards, local magazines and newspapers. Generally, most advertisements use humour as an emotional appeal to catch attentions of targeted audiences.

Useful ways of advertising

In the words of Katz (2010, 51), "There are various ways of categorizing the media. We can contrast the print media of magazines, newspapers and outdoor billboards with electronic media—radio, Internet and TV." Some advertisers use exhibitions to draw people's attention and to communicate—send messages about new products, services, or events.

Here are some creative ways in which advertising can be done effectively:

- a. **Text messaging** is a method of advertising, which is made available by mobile phone service providers. Advertisements are transmitted through text messages, faxing and by email to phone users by using an out of voice service.
- b. **Radio** is a good approach of announcing products to buyers. Since, radio listeners have a possibility of doing other things as they listen. In addition, radio listeners are easy to select because of the many choices of radio programs and radio-stations.
- c. **Telephone directories** ordinarily contain adverts in page sub divisions known as *yellow pages*. Some of the adverts found on these pages are displayed in small or full-page layouts—to make known the name, address and telephone number of local businesses, individuals as well as organisations.

d. Outdoor signs are the major visual communications or designs used for making outdoor advertisements. The benefits of outdoor signs are; they are mainly large, colourful, made in simple and precise layouts. Distinct, outdoor signs used for advertising include:

- **Transport signs:** *Read from posters.*
- **Window displays** are mainly used by shops, which sell clothes, shoes, bookstores and electronic gadgets. Sometimes, big shops hire display firms to design their window displays.
- **Points of sale displays** are used to advertise and promote new products by using signs, banners, posters and other items inside a shop. The product or advertisement can be permanent or temporary, usually put in particular places—clear to see. Point of sale displays draw customers' attention to a (new) product on sale, or special offers. Sometimes it is used to promote special events like Christmas.

e. Novelties cost little money and they can be produced in very large quantities for aggressive advertising. They are items like calendars, bandanas, matchboxes and key rings that carry a visual symbol in form of an advertiser's name and a message. Novelties are usually given away—free of charge. Otherwise, users are not aware that they are acting as advertising points for brand owners. For example, by displaying a calendar showing your preferred sports team in your room.

f. Magazines have very many advantages over newspapers during advertising. They serve in the same ways as a calendar owing to the fact that we read them in a leisurely manner and they are often kept for weeks or months before throwing them away. For that matter, intellectual chances of reading a particular magazine is given to several individual members of a designated group of people, family, company or organisation. Magazines offer better printing and colour reproductions than newspapers for advertising.

As a graphic designer, you deserve to know that some magazines appeal to mass audiences and others to a small majority of readers.

Examples of magazine consumers include teenagers, family, sports, business and farmers.

Exercise

1. Formulate fraternity groups with specified numbers of people and discuss a plan of making a corporate design system or identity for a new company, or an organisation of your own choice. It can be a school, hospital, or a society for religious people. The following manufactured articles or products, advertisements and promotional materials **MUST** appear exactly alike. A logo, the illustration, typography and colours used on items like packages, book cover design, newspaper or a magazine front, a letterhead, an envelope, a business card, a CD, an advertisement (poster, signpost, banner, billboard), a wrapping paper, office curtains and a web site structure of the proposed institution, company or organisation. Your final design must be done with a computer apart from a sketch. As a summary, write a project brief of the corporate design for a company or organisation you have chosen and explain how each item will function.
2. Go to *Chapter Fourteen* and read from **Tasks for revision**

CHAPTER SIX

Collage

The word collage comes from a “French word *coller* meaning to glue or paste.” (Jenkins 1980, 108)

According to Annette (1982), “collage is an arrangement of several different shapes, cut or torn from various materials, which form a pleasing combination of shapes, textures and colours when glued onto a sheet of paper to make a permanent picture.” Obviously, then, collage art is made up of various collections of things.

Nevertheless, working to produce a collage artwork is governed by serious creativity supported by “pasting” and “assembling.” It is the “maximum diversity of source material, to produce a coherent artist synthesis.” (Ashwin 1982, 63) By analysis, collage art is well made with arrangements of thrown away objects, which work as basic materials of its different forms.

We can also see this from Kyeyune's (2003, 215) *Art in Uganda in the 20th Century* denoting this excellent statement:

“Ssengendo produced a richly colourful imitation style from a collection of things lying about in an untidy mass and that their portrayal was made easy by a clear physical display of shapes in distinct tones and texture, with ridges of fibre and feathers.” Here we see that a collage artwork can be constructed and defined by analysing shapes, colours and textures of different things.

Walther (2000, 46) reminds us that “it was not until Picasso discovered the technique of collage, or 'papier colle,' that he started thinking about sculpture ... Sticking papers onto a picture, ... a step beyond the strict two dimensional character of painting. And when he begun to use other materials such as card board, tins, wood, string and wire his pictures changed more and more ... ”

Distinctly, then, learners should be made aware that collage art is interdisciplinary, it combines other disciplines of art and design like sculpture, painting, pottery and drawing. We can conclude with Janis et al.'s (1967, 145) reasonable explanation: “Collage brought the world into art and then art moved into the world ...”

Thereby, creative artists should be encouraged to use nature as the main source of useful materials. And it can as well be a source of inspiration from whence designs of collage artwork can be made.

The table below examines the different parts of plants, which can assist to provide remarkable basic materials necessary for creating collage art:

In our environment there are plenty of plants, which can provide necessary glue for use on collage and other crafted artworks. Trowell (1951, 26) suggests, “if you know any tree which gives out a sticky transparent juice, you should try to use it as a glue medium.” Here we see that it is important for the learner to have the right kind of glue for the different materials available to make a collage artwork.

As an example, *boiled cassava paste*; made by mixing hot water with cassava flour forms a thick paste necessary for fastening like glue. During stove preparations, keep the substance moderately solid for better bonding results.

Here below is a proposed list of supplementary craft glues and colouring dyes, which are obtainable from plants. Some of them can be used to carry out experiments for scarce art materials:

In their book *Forest Climbing plants of West Africa*; Bongers et al. (2005, 171-172) suggested some of these climber species—of plants, which can be used for crafting purposes:

Alchornea cordifolia; the leaves of this plant can procreate an *indigo colouring* material.

Cryptolepis sanguinolenta; from its roots and the bark. We can extract a *yellow colouring* material for dyeing fabric.

Lonchocarpus cyanescens (Lonchocarpus); the seeds and leaves of this plant can produce an *indigo colouring*.

Morinda morindoides (Rubiaceae); the roots and the bark produce a *yellow colouring*.

Oncinotis pontyi; extract liquids from its stem, add lemon juice then boil. Strong glue will be attained. Fit for repairing broken pots.

Rhigiocarya racemifera (Menispermaceae); produces *glue* from its fruits.

Uvaia; a *yellow colouring dye* can be squeezed from the roots and the bark of this plant.

Canarium schweinfurthii (*Mpafu tree*); the bark of the tree (on the stem) when opened and left for some time it will produce a white citron scented gum.

Other types of craft glue can be purchased. These may include; sticker glue, wallpaper paste, glue stick, royal icing, glitter glue, tacky glue, white glue, powdered glue and wood glue.

Surfaces for producing collage can be worn out posters, fabrics, card board, particle board, styrofoam trays, sackcloth/canvas, wood, cardboard cartons, egg trays, furniture.

Assorted objects can be buttons, wine corks, old jewellery, cotton balls, rice (cereals), plastic bottles, macaroni, old photo films, cassettes/CD, wrapping papers, magazine pages, bits of coloured or hand-made papers, parts of the artist's artwork, photographs et cetera.

Found objects include thrown away items such as: pieces of wood, sticks, seeds, feathers, sand, clay, leaves, seed pods, wires, snail shells, pebbles, weeds, egg shells, coloured stones, bottle tops, drinking straws, tooth-picks, match sticks, sisal, raffia, grass, used bags, tins, shoes, old playing cards, keys, lace and shredded paper; are good for making paper machê when mixed with starch and thin flour paste.

In the opinion of Trowell (1951, 7), "equipment and materials for teaching art can be very expensive. Yet, with a little care and trouble, art can be taught at a very little cost." Undeniably, the cheapest way of executing a collage artwork without spending money, is by using found objects. Thus, it will give more possibility for the learner to interact with their surrounding environment and it is another benefit of achieving recycling.

We can end with Ashiwn's (1982) remarks, "collage is capable of a certain amount of visual shock where different sources" of materials and ideas often continue to declare their origin with in the artist's inspirations and inventiveness.

Uses of collage

Collage art is sometimes not easy to understand by some creative visual designers, it can be intimidating or disturbing. As Rothamel (2000, 9) points out, "collage ... can be just as formidable as watercolour, oil painting or sculpture." Certainly, this also indicates that collage art serves satisfactorily well in the various art disciplines. Jenkins (1980, 108) prefers a different justification: "On why do collage? Answered ... it imposes a sense of order on random materials." From this we can understand that, the learner who does collage art shall be able to arrange neatly and also manage working with various obtainable materials.

Here is how collage art can be useful:

- Artists use collage to make beautiful paintings, photomontage, weaving as well as—in music.

- Collage is the most creative way to do art by recycling.
- Collage is undoubtedly the cheapest way to produce very expensive artworks.
- Collage is a branch of study that can be easily absorbed or integrated into other art and design fields.
- Collage art is an open power to every learners creative potential. It is limitless.

Characteristics of collage art

Collage art can be made in two or three dimensional forms. The qualities and characteristics of collage art differ accordingly.

Here below is a viewpoint of an itemised list of collage characteristics:

- Combined with painting** is a characteristic of collage—in which (paint) pigments can be reasonably merged with other colourful collections of chosen collage art materials. Digolo & Mazrui (1988, 35) offers a rational opinion; "collage is often combined with painting and drawing."
- Texture** is almost always generated by the materials used in the course of executing a collage artwork. It can be realised by touching or seeing. Jenkins (1986, 110) affirms, "Fingers are the best paste applicators" and they give "the most sensory experience." Certainly, by ways of touching different materials, the learner should be encouraged "to study the variations in texture and colour" for the time of choosing collage materials—of a specified artwork.
- Multimedia** in collage art is explained with an aesthetic frame of reference. That is to say, a single artwork is produced in more than one medium. Digolo & Mazrui's (1988, 29) say, "when two or more techniques are used, the method is called multimedia or mixed media." Thus, this characteristic of collage art appeals to creative artists with knowledge and skills of integrating subject matter with various materials of a kind like found objects to create collage artworks.

A collage artwork

Materials: Dry leaves attached with glue and/or threaded on the surface of a bark cloth



d. Superimposing of a collage results from placing and laying different materials of two/three dimensions to make a collage artwork onto a prevailing surface.

This characteristic of collage art has got an impact on *Montage* and *Photomontage*. According to Digolo & Mazrui's (1988, 35), "in all ... the materials and pictures being used are often juxtaposed and superimposed to create interesting effects."

e. Three dimensional is common with collage art done in fields of sculpture. Some artists refer to three-dimensional collage as *assemblage*. Mayesky (2009, 300) explains, "Assemblage refers to placing a number of three-dimensional objects, natural or man-made, in juxtaposition to create a unified composition ... Assemblage makes use of three-dimensional space, resembling a still life arrangement as objects are first selected, then arranged..." This is a practice that we very often find with collage art.

Ultimately, if the process of achieving a successful aim or purpose of a planned artwork of a collage shows little prospects or chances for success. Seek advice from books and other collage sources or established masters of collage art around you.

How to make a simple collage

In Spring's (2008, 88) famous book of contemporary African art; *Angaza Afrika: African art now*, Jorge Diaz an artist from Mozambique used collage and acrylic on paper to compose

his artwork titled *Old works in new project*. The artwork unveils "... images from popular culture and the natural world, giving a spiritual dimension to everyday materials and situations." Accordingly, Jorge Diaz's collage artwork puts creativity forward for consideration as a *theme* to its *subject matter*. Thoughtfully, start to develop a sketch for the intended idea of a collage artwork. And make ready all necessary materials that meet with the required purpose, such as photographs or out of date coloured magazines, post cards, a brush and water based glue et cetera.



A collage portrait

Materials:
Long narrow (cut) slits of banana fibers, wood glue, on a plywood board surface.



Cartoons.

A collage artwork, it was carefully made with selected torn pieces of papers (cartoons) from news papers

Materials: Porridge (glue), on manila paper.
Size: 30cm x 42cm

You can also use banana fibres. They provide a full range of colours necessary for creating a collage artwork. Assuming that the final product of the artwork created was planned; to be constructed with a technique of **photomontage** (or decoupage).

In decoupage the creative artist is expected to use essential photographic images, vintage motifs, product labels, floral designs or patterns, magazines and newspapers to decorate surfaces like cups, box, lamp shades, furniture and papier-mache.

Pluck out pages and cut them into shapes that can be combined for predetermined needs—put special importance to elements of design such as *textures and colours* basing on some defined appeals of a task, or a sketch. If a certain detail is not suitable or correct, tear or deduct it off until when you get pleased with the rightful tearing and placement.

Then, obtain glue and mix it with small amounts of D.D.T powder to preserve and protect the artwork from pastes or destroying insects. By using a small stick pick glue and smudge it under each *paper-tear* properly. If you get a fold in the attained paste up, that may indicate the (paper) material used contains some air bubbles. Therefore, use less glue. Blot any other existing air bubbles by pushing them away with a straight stick in a horizontal way before glue dries. "Keep a damp sponge of cloth nearby for leaning fingers." (Jenkins. 1986, 110)

Apart from that, excess glue can be cleaned with a dampened paper.

Finish and preserve the collage artwork by varnishing it. Varnish is widely used finish decoupage, but you can also use *lacquered sap*. It is obtained from a lacquer-tree and it is used for varnishing wood or other materials.

If lacquer dries well—on a surface, it forms a hard protective coating necessary for finishing and embellishment of such types of collage artworks.

At the final stage, find a safe place to keep and dry the collage artwork. Depending on the nature of material used, the collage artwork can also be sealed or laminated, if necessary.

Exercise

1. Make a pictorial composition of a collage artwork using found objects to educate your community about **one** theme from the provided list below:
 - The need for planting trees
 - Global warming awareness
 - Pollution of the environment
 - The importance of recycling
 - Sickness and disease through HIV-AIDS pandemic.

CHAPTER SEVEN

Mosaic

A mosaic is a type of artwork that can be made by arranging small coloured pieces of *hard materials* like glass, stone and tiles to create a beautiful decorative pattern.

The *History of mosaic art* (2008) tells us that “mosaic history goes back some 4,000 years or more, with the use of terracotta cones pushed point-first into a background to give decorations.” From this we can understand that any hard surface can provide a base for a mosaic artwork so long as it is firm, free from moisture and grease or liquids.

According to Tinkler (1911) “by the eighth century (*Before Christ*), there were pebble pavements with different unstructured decorations of coloured stones used for creating patterns by the Greeks.” These mosaic artworks were used for various purposes like making elaborate decorations in worship places especially churches, surfacing roads, house floor, walls, decorative utensils and furniture. Other creative artists who do mosaic use recycled materials from broken coloured pieces of terracotta carefully selected from earthenware of a kind like glass, pottery as well as tiles.

Mosaic artworks are created in different ways, some display shapes of precise geometric patterns, while other are arranged almost randomly to display or show scenes of people and animals. In other words, there is no right or wrong choice for making mosaics artworks.

A further look at mosaic practices from Kyeyune's (2003, 129) explanation about *Todd's theories in practice* offers “Todd's best-known work in Uganda is a mosaic mural *exchange and barter*. In this work we discover that Todd was unambiguous in the way he considered and incorporated artefacts of the past in his design ... exchange and Barter was a public art project carried out in mosaic and terrazzo on a new building in the centre of Kampala to enliven urban scenes and give a visual interest to a blank wall.

The theme of this 84-foot decoration is a pictorial history of money, showing money and barter tokens, currencies in current use and those that have been used throughout history in many parts of the world ... Todd's exploration of these motifs is simple and direct.

He breaks them down to their basic shapes and exploits their decorative value by arranging them in contrasting colours in compartments of squares and rectangles, a technique that creates a vivid visual impact. The perfection of line, the balanced colour arrangement as well as the proportion of motifs in relation to the overall ...”

Here we see that, by helping learners to familiarise with available well known collage artworks, discuss the material, technique used to execute the art work and talking about the artist who made the collage. All this will add to the possibility of increasing the learners' creativity and search for new ideas.

Materials and tools

The types of materials and tools used to create mosaic artworks are numerous. Dierk (1997) says, “Despite the apparent complexity of the finished designs, the tools and techniques for making a mosaic are simple.” The most important thing is the medium in which a designer or artist has chosen to execute the final design.

Here below is a brief list of what might be required:

Found objects	Pieces of unwanted broken ceramics or glass, metal, bones, sticks, stones, tiles, bottle tops, grains, papyrus, cardboard papers.
Everything else	Cement or grout, cutters, wood blocks, wax, buttons, bricks, cassava paste, soil/clay, glue, coconut shells, tweezers, a twig brush, cloth, table tops, used photo frames, nails and keys.

Kennedy & Pompilio (2005, 10) remind us to “be aware of weathering and ageing on the tesserae you choose and know what adhesive will be necessary to secure it ...” For the reason that mosaic artworks stay permanently in one place for very long time. As a consequence of this, the artist is required to always find durable materials.

Characteristics of mosaics

As Digolo & Mazrui (1988, 33) assert, “Another characteristic is that a mosaic uses one material at a time and places emphasis on colour.” Thereby, mosaic artworks are for the most part created by using a single material like stone or broken tiles in different colours and sizes. And, apart from that, some types of materials are put to use after painting them.

Let us try to make a brief analysis of basic characteristics of mosaic art:

- a) **Mono-media** is another characteristic of mosaics. Whereby, the executed artwork is usually made by using a single (hard) material like glass, small bricks, stones, tiles—alone.
- b) **Tesserae** are principle materials used for the time of constructing a mosaic artwork. Such materials exist in types of small bricks, stones, wood, shells, tiles and glass. Tesserae are generally meant to be of various sizes, colour and shapes.
- c) **Interstices** are small spaces caused by tesserae during the process of constructing a mosaic artwork. King (2006, 107, 250) asserts, “the tesserae are positive and the spaces (or interstices) in between are the negative ... The space or joint between tesserae” in which grout or any other joining material is filled up to build a mosaic artwork.
- d) **Colour** pronounces the purpose of a design on mosaics, for it plays a significant part of revealing artful arrangements of well-composed tesserae to become visually recognised as images or patterns. “Sometimes the prettiest colour combinations are found while rummaging through glass and china scraps.” As well as “... leftovers from previous projects.” (Kennedy & Pompilio 2005, 79)

Setting up a mosaic artwork can be done in different ways. That is to say, artworks of mosaics are almost always done by using a *direct* or an *indirect* method.

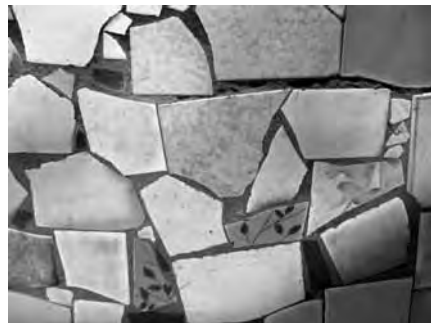
Here is how it can be done;

The **direct method** of making a mosaic artwork is done by setting a surface of the support and then a single material of tesserae like stone, tile, or glass is carefully arranged directly on the surface top—grout is added at or soon after this stage. Kennedy & Pompilio (2005, 16) say, “In the direct method tesserae is placed directly on the mosaic surface. They can be placed in drying concrete, or glue on a prepared surface ... the method allows you to easily make adjustments to the mosaic as you work.” However, the outcomes of a direct method are not always flat or even thus making it suitable for wall mosaics (vertical) than floor (horizontal) mosaics.

And in an **indirect method** of producing mosaic artworks there is a great possibility of attaining smooth and even surfaces, as well as having the capacity to execute very huge collage projects. The Indirect method involves working or making mosaic in an inverted (upside down) way on a clean flat surface of the support. Kennedy & Pompilio (2005, 17) note, "In the indirect method of creating a mosaic, an adhesive sheet is placed over a pattern, then tesserae are carefully assembled on the surface and then concrete or grout is poured over the tesserae." When the artwork is turned to the actual (front) side, it will appear smooth and flat.

In a subsequent way, the *Uganda Advanced Certificate of Education, Regulations and Syllabuses, 2009 – 2012* (Uganda National Examinations Board, 2008, (e), 226) offers this excellent mosaic expectation: "Learners who carry on tasks with inherent features of *mosaics and collage* ... are expected to have their finished artworks suitably mounted or framed. And the artwork must show potential evidence of ability to relate design to the medium." For instance, if the mosaic artwork was created with tiles on a wall surface framing may be created by arranging larger sizes of tiles in a contrasting colour or tone.

In Pat Torlen (2001, 4) et al.'s *introduction*, "traditional mosaic and ceramic tiles are still used to make beautiful art pieces but with the addition of different materials such as broken china, glass nuggets, art glass and jewels, mirror, stones, fossils, shells and other found objects." As creative artists, we may as well experiment with other found objects like buttons, beads, as well as small ornamental items of jewellery to produce mosaic artworks.



A small section of a floor surface, showing randomly arranged recycled tiles. The same approach can be used to construct a mosaic artwork.

How to produce a simple mosaic

Making mosaic artworks can be such a complicated task since most of the necessary materials are bulky. However, there are some basic approaches, which can be used to creatively execute a mosaic artwork. Let us say, if the creative artist uses grout or any other adhesive substance to arrange stones, or seeds of different colour and sizes—beside each other on a prescribed surface of the support. The obtained results shall be a simple mosaic artwork.

Here is a simple technique:

Find a source of inspiration and make a sketch of a desired mosaic artwork. Or, use an already done sketch. Remove the bulk of unwanted details to make it fit well with the desired task—to stay less complicated.

Then, identify necessary tesserae; you can use small pieces of stones with varied colours and sizes.

In general, a mosaic artwork has got to be done on a hard surface like *a fired pottery/vase, a platter, a table top, picture frame trays, candle holders, relief sculptures and on wall or ceiling surfaces*.

Nevertheless, everything about a satisfactory mosaic design comes from the creative mind of the artist, followed by having the necessary skills of interpreting some of the pointed out demands of a provided task.

If the tesserae used are tiles, but not stones. Break them into small pieces and put them in categories of itemised *colours, sizes or textures* accordingly.

Steadily, lay well each tesserae piece on the surface of the support—following directions provided by a sketch. Leave small gaps or crevices in between each tessera for adding grout or a provided adhesive. Dierk, 1997, 25 says, "Grout fills the crevices between tesserae, adding considerable strength and durability to the construction. Grout joints also bring a linear quality to the design ..." When a grouting stage is completely done, use a dampened sponge to clean off excess grout. And when the artwork is ready or successfully done, take it and keep it in a safe place to dry.

A mosaic artwork

Materials: A plate made out of paper, glue, peanuts arranged with cereal grains on a plastic surface of the support.



Exercise

1. Citing years of neglect, failure to meet standards and misuse of public funds by local leaders. The people in your area have decided to raise their voices by asking you to make a pictorial design of a mosaic artwork that will be displayed inside the town hall, to enable them convey an awareness message educating the community about one of these important issues:

- A good nutrition is a health body
- Coffee, tea and sugarcane are our cash crops
- Pollution of the environment
- The burdens of corruption
- Coping with disability.

CHAPTER EIGHT

Ornaments

Ornaments are elegant decorations used for embellishing our bodies. They can also be used on surfaces of useful objects to make them appear more attractive—with their extra ostentatious details.

Chandra (1979, 7) offers a rational explanation: "The study of ... ornamentation and of jewellery ... does not only disclose man's curious fascination for the unusual, the rare, the shining, the colourful metal, stones and other materials." For all that, learning about ornaments also helps us "to understand the beliefs, the customs, the economic condition, the set-up of the society and its contacts with foreign." From this we can understand the apparent reasons as to why we draw irresistible attention and interest to ornaments. They reveal objective reality to elegant fashions and they serve us in different ways for various purposes. For the most part, ornaments display a good sense of style—according to traditions and widely accepted customs of our societies.

African tribal groups of people use ornaments in very many ways. Craats (2004, 10) notes, "Maasai women ... wear brass ornaments that coil around their shaved heads. Head-dresses can be very elaborate. Only married women can wear long blue beaded necklaces and beaded flaps on their earlobes." Surprisingly, some creative artists find perfect sources of inspiration for elegant fashions from ethnic groups of people like the Masai who make ornaments to be worn by different classes of people.

In Tod's (2004, 288) *A Companion to Roman Britain*; "... jewellery was frequently considered to be a female form of ornament, while men wore 'functional' items such as brooches, amulets and finger-rings that doubled as signet rings." Depending on our systems of knowledge and beliefs, both women and men wear jewellery and ornaments for various known for functions like displaying social status and for beauty.

However, it is customary for various tribal groups of people to wear or produce ornaments—find sources of inspiration from local materials and found objects.

All this and more can easily be acquired from the physical environment thus helping to turn useful ideas into artworks. Sources of inspiration necessary for making ornaments include *bones, animal teeth seashells, ivory, horns, leather, wood or sticks, stone, coloured soils, metal, sisal, reeds, bamboo, plants* and *carved stone*.

According to Silvester (2009, 3), "... the Surma and Mursi" in the Omo valley "... share a taste for body painting and extravagant decorations borrowed from nature ... done mainly with materials from the plant world,—all kinds of trophies, including buffalo horns, warthog tusks, monkey skins and more" are used as principal materials of executing creative ornamental artworks. They also use "flowers, vegetables, herbs, shrubs and weeds."

Certainly, ornamentation is still a predominant practice for the most wanted people around the world. In Uganda, "Langi women were tattooed on the back and front while men were tattooed on the back only and both sexes normally used oil or ghee as skin lotion ... " (Otiso 2006, 75) All these habits of embellishments and adornment aim for beauty, mutual respect and other society affiliations.

And in several African societies, people do hair art in forms of body ornamentation and it is executed in relation to the type of emphasis placed on privileges societies and tribes avail to a particular person or a group of people in their distinct tribal communities.

Also, in an incidental manner, ornaments are likened to *jewels* that we use as *precious metals or objects* for adoration. According to Chandra (1979, 7), "ornamentation ... include other examples of embellishment such as, necklaces, rings, bracelets, earrings, wine cups, accessories of worship used in churches or shrines, body decorations, clothing ornamentation and dressing for local cultural shows or entertainment and rituals." Here we see that, the two words ornaments and jewellery give the impression that they are interconnected and indistinguishable. For instance, *Mac OS X software*; Dictionary (2009) indicates jewellery as "personal ornaments—which contain jewels and precious metal." It also explains ornaments as "adornment decorations added to embellish." In simple terms **jewellery** deals with precious metals while **ornaments** are adornments that may sometimes be without practical purposes.

A pendant of a necklace

Materials:
Bark-cloth,
thread and
plastic beads



To avoid uncertainties, take your creative actions or processes with one word/meaning that you think is most significant for a desired interpretation.

Uses of ornaments

A lot of aesthetic and creative purposes have been mentioned in the previous basic explanations about ornaments.

Here is another review about uses of ornaments:

- The rich especially among the royals use ornaments as *status* symbols.
- Ornaments are used as articles of faith. For example, *crucifixion antiquities, medallions* or a spiritual cross. North (1986, 21) explains, "We know that many religions have used Gold as part of their ornaments." Certainly, such embellishments serve as enhancements of doctrinal atmospheres for some religious worshipers.
- Ornaments are equally used by military or private people as *clasps, pins* and *medals* to *decorate* and to *commemorate their actions and services*.
- Both ornaments and jewellery have numerous significance to wearers (*of bling-bling*) who *perform* on social occasion; playing music, dancing and for some theatrical roles.
- Also, ornaments and jewellery are used to *reveal marital status* of particular people, especially among the married.
- Ornaments can be bought or owned in exchange of money and for wealth displays. North (1986, 20) says, "before it functioned as money ... it must have served other purposes ..." He was referring to the other ways in which "jewellery" and "ornamentation" were used before the current medium of exchange such as coins and banknotes.

Also architecture uses ornamentation as decorations. For instance, on buildings used for public worships (a church or a mosque). The walls are sometimes decorated with ornamental doctrinal designs, which may at times indicate scripts from a Koran and faith-based geometric designs on windows and columns.



An example of a spiritual medallion routinely worn as a pendant

Equally, in places of worship, we find various kinds of ornaments used as accessories of worship such as a goblet, chalice or wine cups, the altar table and sacred vessels. These are also referred to as antique ornaments for aesthetic decorations and adornment.

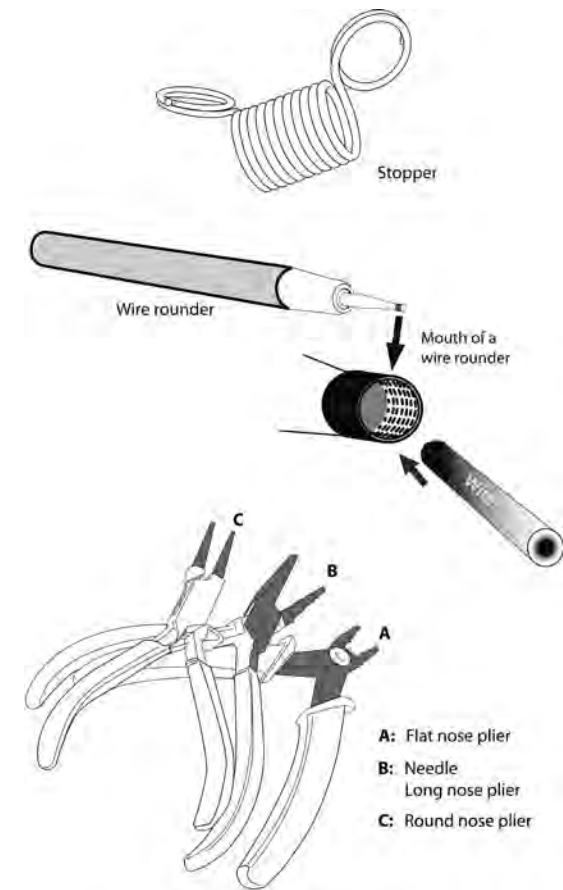
The uses of ornaments and jewellery are endless to the extent that everyone will always find a sincere reason of owning them and make beneficial uses from them. Apart from that, jewellery and ornaments can be produced from extremely plenty of materials. And certainly, the process of making ornaments involves using different tools, materials and equipment.

Materials and tools for making ornaments

As Njoroge-Kamau (1988, 158) has remarked, “Any beautiful bits of scrap paper, sisal or cotton string, soft copper wire, beads, soft seeds, bottle tops, bones, horns, strong glue or paste, scissors, hammer, nails, knives, razor blades” can beneficially be used as tools and materials necessary for producing ornaments and jewellery.

Let us learn more about some well-defined tools and materials, which may be necessary for making ornaments and jewellery:

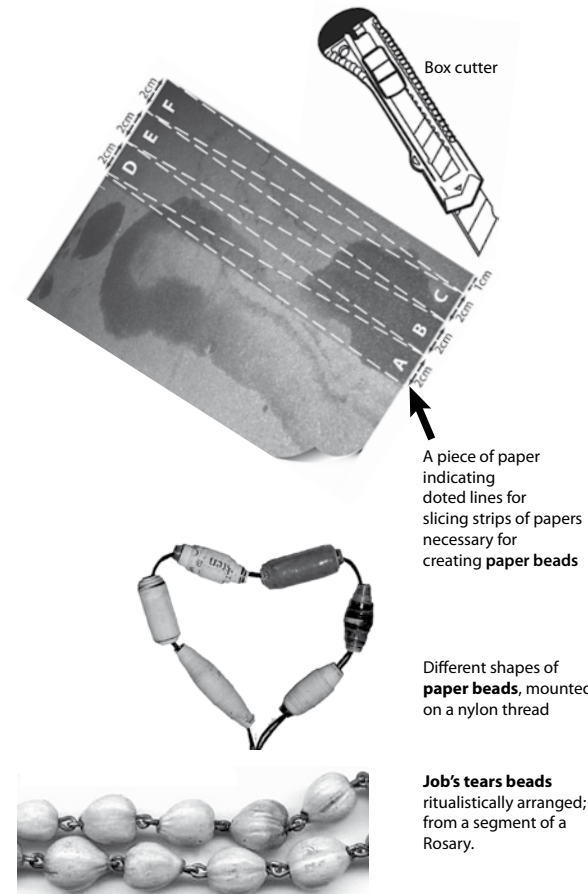
- a. **Closing pliers** is used for finishing by locking a jewellery artwork. It has also got a smooth side for protecting wires from becoming dented during the course of making closing loops. Sometimes jewellers use *closing clippers* to make link rings or loops.
- b. A **wire rounder** is a tool used to eliminate sharp points on jewellery. It makes rough edges of cut wire ends soft and smooth, by inserting a wire through its cup end. And then, a wire is carefully rotated backwards and forwards—for a smooth round finish.
- c. **Round nose pliers** can be easily confused with **chain-nose** pliers by reason of their concise similarities. One at a time; a round nose pliers has got smooth round jaws used for bending and they can be used to form loops on a wire. And, *chain nose pliers* have got flat jaws used for gentle narrowing of wire points. It is also used to keep a firm hold at a stage of bending wires.



- d. **Flat nose pliers** use a smooth side to hold beads. It can also open jump rings as well as assisting to make wires straight. A creative jeweller can accurately use flat nose pliers to bend wires by using its flat top.
- e. **Stoppers** as it sounds—are accessory tools used for stopping beads from slipping out of a necklace thread during constructions. Types of stoppers and their abundant uses are numerous. Another simple way of making a stopper is by tying knots. Surely, all this is sometimes determined by the nature of materials used to support a necklace for the time of construction. For instance, a string does not behave in the same way as a wire—for the time of operating as a stopper.

- f. Needle/long nose pliers** uses its longer and narrow flat tip to give a quick reach into tight places. Its long arms give a better control during the whole process of working.
- g. Beading awls** are the only tools with an acquaintance of “undo” during jewellery making. But it can also be used for making holes in leather. Beading awls are designed to manage annoying knots that are fastened tightly or closed firmly. By improvisation you can use a sharp nail; firmly fix it on a supporting stick-handle, a beading awl shall be cheaply made.
- h. Cutters/box cutters** exist in various types and sizes. Their functions are associated to a razor blade or a *pair of scissors*. They can be used to cut some soft types of strings or wires, papers for paper beads et cetera. A good cutter must be sharp for a pleasant trim and to avoid tattering or making irregular smooth less edge on a thread meant for jewellery, or a paper intended for bead making. Other creative jewellers use kitchen knives to cut for the time of constructing jewellery artworks.
- i. Strings** can be easily attained from well prepared raffia or sisal. Sometimes nylon thread is used in the same way for purposes like fastening and it is also used for holding jewellery throughout construction. Njoroge-Kamau (1988, 153) asserts, “bottle tops and seeds need only a hole to be drilled in them and a string passed through ... to make a simple necklace.” But then, if a string or thread used for making a necklace shows tattered bits on its ends. Use a lit match stick and carefully burn them (tattered bits) for a pleasant finish.
- j. A beading board** has got the same function as a beading mat. Such a board can be made locally from a wooden board. Beading boards that we buy from shops are designed to have grooves, which assist in the process of shaping a necklace and they also provide necessary measurements or size. Using a beading board allows a jeweller to plan a necklace. It contains units indicating chain length or bracelet sizes. Other uses of a beading board include sorting, aligning and organising beads.

- k. Tweezers** are many. That is to say, there are very many kinds of tweezers. Even so, jewellers use tweezers to pick and to hold small items during the process of making a jewellery artwork. Items that can be picked by tweezers include small pieces and parts of chains, beads and strings. A simple tweezers can be made by bending a small firm metal plate into a befitting ‘V’ shape.
- l. Beads** exist in different colours, sizes and materials. Some types are made from plastics or they are artificial and others are natural—extracted as seeds or from fruits. Nonetheless, beads can be made from papers, plastics, wood, stones, cowries shells and bones.



A piece of paper indicating dotted lines for slicing strips of papers necessary for creating **paper beads**

Different shapes of **paper beads**, mounted on a nylon thread

Job's tears beads ritually arranged; from a segment of a Rosary.

Certainly, before using natural beads or seeds, it is important to treat (preserve) them, prevent decay and harm on skin. Some types of seeds are safe to use as beads when they are dry and they are easy to find from forests. Examples of such seeds obtained from plants for making jewellery and ornaments include:

- | |
|---|
| 1. <i>Job's tears</i> are commonly used in botanical jewellery |
| 2. <i>Ormosia coccinea</i> seeds; they are bright red with a large black blotch. |
| 3. <i>Coconut tagua</i> seeds grow like a brown, rough-skinned miniature coconut. |

Ultimately, here is a table showing basic materials, which can be twisted into integral shapes necessary for creating jewellery artworks:

Bones	Pen caps	Sandal/slipper
Cable wires	Bamboo	Cowries shells
Tin tops	Buttons	Hollow sticks
Bottle tops	Used car tyres	Plastic cork
Leather from old shoes and bags	Scrap papers (paper beads)	Plastic water pipes

In a creative and sustainable way, clay is another comprehensible material, which can be used to mold beads. This can be done by using the inner surfaces of your hands or between the thumb and an index finger to press clay into shapes of beads. The method is tricky, because it is not easy to quickly obtain similar or matching beads—with precise sizes. But it's worth a try.

Sources of inspiration for designing jewellery artworks

Artists produce very many functional jewellery designs from their surrounding environment.

In general, creative designers use sources of inspiration from nature to execute a wide range of things that we see or use as beautiful jewellery and/or ornaments. In Silvester's (2009, 8-9) *Art and the body*; "snail shells strung on plant fibers make a superb necklace. Shells, nuts, gourds, flowers, woven grass are used as decorations." Here we see that the list of things the learner can use as sources of inspiration for designing jewellery and ornaments are inexhaustible.



As a creative artist, check for other sources of inspiration from the already done sketches inside your book. Equally, some drawings can still be used as a starting point for composing suitable jewellery and ornaments.

Here is another checklist of creative ideas which can be converted into delightful jewellery and/or ornaments:

Snail shells	Insects	Alphabets
Visual aids	Logos	Story telling
Birds or feathers	Wood/sticks	Bones
Flower, leaf and plant shapes	Religion and worship	Entertainment/Music
Patterns from animal and reptile skins	Tourism, museums and prehistoric sites	Shapes, textures of seeds and fruits

In the meantime, learners should be given prior knowledge about possible outcomes of making jewellery and ornaments meant to serve as artworks with an underlying aim of *scaring or frightening*. Examples of scaring themes include snakes, tigers or lions et cetera. Even though creative artists can find inspirational ideas from them, such themes should be avoided. Here is why.

'Beautiful' as such themes may seem to be—to you! Scaring and frightening themes do not entice sincere users than if jewellery or an ornament was creatively executed from a domestic or tamed animal kept for companionship as a source of inspiration. Examples include pets; fish, birds, a dog and all kinds of animals that we treat with care and affection.

Silvester (2009, 6) argues that during his visit at Omo valley in Ethiopia, "the Mursi were the most warlike among all the tribes there.

The aggressive conduct of these warriors and their regalia, made from warthog tusks, horns and other animal trophies, made a major contribution to their reputation.”

That is to say, art and the modesty of ornaments as well as jewellery should be highly regarded as matters of public interest and importance.

None the less, distinct African tribal people associate 'scare' with events of worships and rituals. In particular witch craft or sorcery.

Techniques of decorating jewellery

African jewellers make jewellery artworks by using very many outstanding techniques, dictated by the materials available.

Miller (2005, 14) says, “A good technique is the foundation of superior jewellery design and manufacture.” That is to say, nearly all creative jewellery artists will enjoy the delight of discovering good approaches of working with a justified technique of executing planned jewellery.

Occasionally, it is not reasonable to decorate jewellery accessories made from natural seeds, shells and beads. They are naturally endowed with indisputable artistic patterns, which may naturally appeal to end users and their common desires.

Here is a look at some of the generally accepted “ways in which jewellery can be decorated” basing on Gale & Little's (2000) writings:

Fabrication	Mainly applies to shaping metal. For the time of decoration, actions or steps may include <i>hammering or stamping to flatten links, filling and sawing or piercing.</i>
Spraying or painting	The two attributes; spraying or painting present an appealing sense on the surface of jewellery. They help to prevent harm on human skin. And, they also protect a jewellery artwork from quick surface degeneration caused by rust.
Plaiting	This technique uses a woven-wire approach. Where by, a chosen flexible jewellery material—wire or thread can be bound intricately together just like strand. An entirely plaited wire meant to decorate jewellery will bear some general resemblance to sisal ropes.

Incising	This can be done by carving or cutting long lasting marks/markings or grooves into a jewellery surface by using a sharp knife or any other tool.
Ornamentation	Decorates jewellery by adding elaboration of other ornate designs. The material used for artwork execution is usually determined by the process and the final design.
File or filing	Decorates jewellery by roughening or smoothing a surface. Filing is mainly done on metallic jewellery and sometimes on wood.
Coils	Are made by using wounds of wires or thread, to form decorative curls, spirals and twirls. Accordingly, the executed coils can be used to decorate other surfaces of a jewellery artwork.
Casting and soldering	The two methods can be used to decorate—operating simultaneously. They both deal with high fire temperatures that form molten. By using a shape of mouldable materials, decorations and joins can be made.
Drilling	Ideal decorations can be added on jewellery by drilling fully composed patterns of holes using a nail or any other piercing tool. Suitable and appealing ideas of designs depend on materials used as well as purpose/functions of impending jewellery.

Finishing jewellery

Creative jewellers finish their artworks of jewellery by using a large number of techniques. For the most part, methods of finishing are determined by varying factors like the type of materials used to execute a final artwork. “It is often the finishing touches that make a handmade item so special.” (Owen 1991, 7)

Finally, as a creative jewellery artist, always make your own tools—necessary for full time use, particularly finishing the executed jewellery artwork. For example, a broken piece of glass can be used for smoothing or polishing plastic, woodwork or other surfaces.

How to make a simple necklace

For the most part, a necklace contains connected series of beads or metal links. Each link appears like a ring twisted back on itself into the next. Such links may also be created from a simple to a more complex form by using other found objects.

Function and meaning are among the most important things, the creative artist has to be aware of to construct a necklace. Miller (2005, 59) asserts, "... It's fun to wear a particularly stunning piece of handmade jewellery to a social function and proudly proclaim. I made it."

Let us see how;

The process of executing a necklace starts with a sketch. The sketch can be obtained from any motivating idea or a source of inspiration of your own choice.

As a creative artist, you will need a string. It can be from a nylon thread or a soft wire for making "... your own chain links to form a long necklace with bead dangles suspended from a pendant ..." (Miller 2005, 88)

Then, obtain beads and start with; sorting them according to size and colours. Keep or put the selected beads aside in one single container. "Job's Tears" beads botanically known as *Coix lacryma-jobi* are prevalent in bushes or gardens. Look for them, if possible. They can serve as the nearest alternative after paper beads. Also, by ways of experimentation, bottle tops can be used for the same if they are shaped well.

Some beads consume a lot of time to make them ready for such useful purposes. For instance, paper beads are routinely made after cutting a paper into small neat pieces similar to ribbons.

The ribbon shaped paper can then be gently folded in a cylindrically way to form different shapes colours and sizes of beads. On the paper's final tip, or the top most end of a paper bead, (after folding it) add a small smear of glue to lock or tie the bead.

In another way, if you have chosen to make the necklace by using *job's tears beads*—they grow as seeds on a grass type of plant and they are shaped like a teardrop.

Sort the beads and take them to dry. After that, pierce then and push a wire or a thread—through each seed accordingly.

At an appropriate stage of mounting your preferred beads on a string, the process of working can be done in sequential ways. As an example, you can start with smaller beads. It is feasible to have larger beads or seeds somewhere in the centre of a necklace to be able to make a proportionally balanced pattern of a necklace.

Fill up the string or wire with beads. If all necessary parts of a necklace are properly constructed, check whether the attained necklace has some distinctive attribute of elements and principles of design. Such as *balance, composition, line, focal point, rhythm and colour combinations*.

Add a lock on the string to finish the necklace and make it ready for display.

Exercise

1. Construct a design set of jewellery to be used on an annual celebration of a very important marriage ritual in your culture. In a creative way, use found objects as materials for this task. Give the attained jewellery a name, but the purpose or function must be self-evident.
2. The schools in your district will hold a National gala for games, sports, music, dance and drama competitions. As a creative artist, you are required to design a trophy for the winning school or team by using skills and techniques obtained in procedures for decorating jewellery. Keep the design as simple as possible

CHAPTER NINE

Weaving

Weaving is the art of using groups of threads, or any other materials such as sticks, grass, thin metal (wires) to make necessary binds for constructing useful objects like textiles; woven from threads. Mats and baskets—these can be made by using grass. Washbun (2011, 136) informs us that “... basketry and mats are often classified as textile arts.”

Through weaving creative artists produce fabrics and other functional objects such as baskets, furniture and architecture. Almost all of the above mentioned can be made with twines of smooth muscle fibers such as sets of yarn, reeds, grasses, prepared bamboo, palm leaves, drinking straws and pine needle (leaves).

According to Lamb (2002) the author of *Topics of weaving*; “Weavers use threads spun from natural fibers like cotton, silk, wool and synthetic fibers such as nylon and orlon. In spite of that, thin narrow strips from any flexible material can be woven. People learned to weave thousands of years ago using natural grasses, leafstalks, palm leaves and thin strips of wood or sticks and strong tendril plants.”

From this we can understand the back stories of weaving and some feasible ways of producing functional woven objects from various natural and manmade materials.

Somjee (1993, 79) laments, “A number of strings can be joined into a rope. Sisal is woven into straps for bags and for tying animals. Sisal in Kenya is used to make mats, cushions, mattresses and baskets.” In another way, strings of sisal, yarn or any other obtainable weaving materials are sometimes enhanced with colouring dyes as a way of decorating the vast range of woven products.

In several parts of Africa especially Uganda, weaving has also been done for architectural purposes like constructing surrounding homestead barriers or fences and it has also been used for building shelter walls with materials like reeds or canes and wooden sticks (wattle-and-daub), tied with well-made strings obtained from tree barks, to support loads and packs of wet clay or mud. On the roof of a house/ hut, grass is firmly thatched to cover and protect occupants from bad weather such as rain.

Sometimes reeds, grass or straw, palm leaves, sliced bamboo, twigs or tree branches are carefully woven to cover the roof.

In the same way, Stairs (2002) reminds us that “in Uganda weaving “does not stop at cloth and house hold implements. He was referring to shopkeepers and street vendors who he found sitting on an “*akatebe ak'ekibbo*, or basket stool.” Evidently, then, it is not only textiles that can be created through weaving, also furniture and other useful house hold items can be made in similar ways.

Well as skills and practices of weaving hand craft are considered as a common practice for African people, duties and responsibilities of weaving are shared accordingly. For instance, “some groups of people in Kenya like the Iteso and Giriama. It is the men who make baskets, whereas among others like the Kikuyu, Kamba and Taita, it is the women who make baskets.” (Somjee 1993, 82)

Lugira (1970, 72) offers a rational explanation: “basketry was the foundation of home making ...” Where by, functional “defence” items such as “fences and portable shields” were creatively made from them. In the tribal cultures of the Masai, women do weaving for building and to thatch huts, “granaries with reed work, traps and heavy field baskets—made by men in similar ways.”

Certainly, there is a big range of art and craft products that can be creatively woven using native indigenous knowledge from various tribal people of Africa—for practical purposes which may be different from one another.

In the words of Mutungi (personal interview, 2009); “... many of the creatively woven functional objects, handiwork and artworks made by African people are—on a rationale of indigenous knowledge ... thus, we have to hold it in high esteem by advancing it to some conforming standardisation.” That is to say, not so many design professional and art teachers have demonstrated satisfaction or approval in teaching indigenous knowledge of weaving. Hence leaving a curious learner to source from informal knowledge of semi-skilled and unskilled people.

Different types of coiled baskets offering evidence of indigenous knowledge

A: Woven with grass straw and dyed sisal.

B: A tightly sewn basket—for storing food; made with natural straw and banana fibers.

C: Woven with dyed raffia and soft splits of cane.



Uses of weaving

As Somjee (1993, 79) has remarked, “The large size *kidasi* ... is used for carrying maize, vegetables and flour. And the small sizes are used to keep and to carry little personal belongings of women.” In view of all these, let us learn more about uses of weaving:

- Weaving can be used to organise large groups of people for social activities in schools.
- By carrying out weaving, we hold back from some habits of frustrations and boredom.
- Weaving is a source of income. Fabrics, mats, nets, trays, baskets and hats can be woven for sale.
- Most importantly, fabrics woven cover or shield our bodies from bad weather. As a result, we attain a health living.
- Weaving is a significance of fashion; it is the origin of utility bags and textiles. Generally, such woven items are also made to depict popular trends.
- Woven fences are used for protection and to prevent escape, it also provides wall supports for home shelters.
- It is a well-liked hobby.

Functional handiwork of weaving

There are very many functional items that are skilfully made by interlacing soft fibres as materials—to make a weave. “Their shapes are influenced by their functions and the materials that are available to the community” Somjee (1993, 85) adds.

Here are some notable examples of woven handiwork:

Mat or *Kiwempe/omukeeka* from Ganda language (in Uganda) and “mkeka” by Swahili people from Kenya. Mats are skilfully woven for different special purposes. Some common types of mats are customary made by using dried dyed palm leaves. Other materials include:

Papyrus	Bamboo	Sisal	Small sticks
Wood	Reeds or rushes	Animal skin	Tree bark
Banana fibers	Slits of cotton fabrics	Drinking straws	Straw and grass

In spite of that, mats have a wide range of utility purposes. For example;

- Protecting a table or floor surface
- Wiping dirty feet in front of a doorway
- It can also be used to display ostentation used for decorating home interiors.
- Mats are good for resting, lying and sitting.

A considerable number of mats are craftily woven by tying, threading and plaiting in accordance with traditional common weaving methods. Most mats, such as those locally made with palm leaves are woven in various series of steps. Maiti (2004, 125) adds, “... plaits are made separately and then sewn into the required shape in such a way that the joint does not show.” This type of weaving is different from weaving done on wooden frames to make carpets and tapestry as well as textiles.

Baskets are many, they exist for different purposes, sizes and they are woven with different materials. Some are made for storing and carrying food, gifts as well as taking them for shopping. As an example there is a type of basket commonly known as *kiondo*. Somjee (1993, 86) asserts, “Traditionally, the *kiondo* was made from roots and barks of tress. Later, it was made from sisal and plastic strings.”

Here we see that through trials and by making experiments with basic local weaving materials the learner shall seriously be motivated to produce baskets from various found objects and natural fibers such as:

Raffia	Cane	Rush	Sticks
Palm leaves	Reeds	Papyrus	Leather
Millet fibers	Banana fibres	Birch bark	Thin wires
Cattail/reed mace	Water hyacinth	Midribs of banana leaf	Willow shrubs
Drinking straws	Dried stalks of grass	Corn/maize husks	Well prepared bamboo

And in a thorough manner, the techniques of weaving baskets differ because of the vast array of materials available for making them. Here is how Maiti (2004, 124-127) categorised some techniques of weaving baskets:

Plaited work	
Check twine	Twilled twine
Wrapped twine	Twine (Plain)
Hexagonal work twine	Wickerwork
Coiled work	
Simple over sewn coil	Furcate coil
Bee-kep coil	Figure of eight
Lazy squaw	Crosse figure of eight or knot stitch

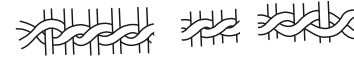
According to Maiti (2004, 127) "plaiting wickerwork and coiling techniques ... include different patterns." The wicker work method is well-known for producing strong baskets necessary for carrying heavy loads.

Dry sticks and well preserved tree barks can also be used to enhance or decorate woven baskets, to appear with a visual sensation of colours. As an alternative, colouring dyes can be boiled with palm leaves, grass and bark to richly decorated baskets.

Furniture can as well be woven in very many ways using various methods and materials. Here are some types of materials necessary for weaving furniture:

Fabric (cut slits)	Sisal
Canes or sticks	Sea-grass

Water hyacinth	Abaca (<i>Musa textilis</i>)
Banana fibre	Sticks or branchlet
Synthetic rattan	Palm rattan
Metal wire	Plastic wire
Raffia	Drinking straw
Car tyre strands—cut into lengthy strip belt sizes	Wicker twigs (also makes baskets)



Plain twined weaving



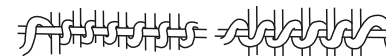
Lattice twined weaving (Bird cage)



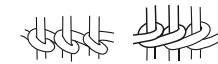
Three-strand twine



Three-strand braid



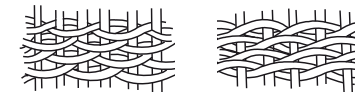
Wrapped twined weaving



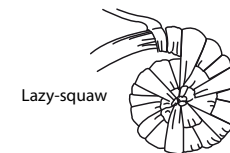
Wrapped work



Hexagonal work



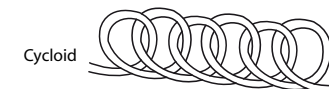
Twill and diagonal twined weaving



Lazy-squaw



Crossed figured of eight



Cycloid

Different kinds of weaving techniques.

These can be used to make strong furniture and baskets

Usually, each obtained material is prepared in a different way before it turns into a final product. For instance, after acquiring some already used drinking straws, they can be prepared or washed by soaking them in a container filled with a mix of water and a detergent of soap. This makes them clean and free from transmissible diseases. However, nearly all woven furniture such as tables and chairs necessitate a frame. It can be made out of wood or metal.

Somjee (1993, 67) discerns this point: "In Kenya, many different types of materials and techniques are used for making furniture ... Today, beds, tables and chairs are made of wood by carpenters, metal craftsmen and basket weavers who have turned into professional furniture makers ... Thus, we have wooden, metal, cane and woven furniture made of branches, tough grasses, barks and vines." Learners must be aware that weaving is a fundamental skill for creative artists since it produces very many useful things for our everyday life.

Textiles are as well woven by using various materials of soft thread fibres—in different techniques. Sometimes, the methods of producing a textile by weaving are pre-determined by the weaver's creativity, tools, materials and equipment. For example, if the weaver takes a process that requires readymade thread. Then, the various stages of spinning yarn shall be skipped. As is evident, passing two thread pieces or yarns to cross each other at right angles does textile weaving. Yarns that move across the width of a fabric are commonly known as wefts and yarns, which run from end to end; are *warps*.

There are so many types of natural materials from which weavers can acquire yarn for example cotton (plant) and wool (animals). Yet again, the two kinds of materials can as well be woven together to form a single fabric.

As Somjee (1993, 41) has explained about a *Burji* cotton spinner who he found in Marsabit District of Kenya: "This skilled spinner is examining the strength and fineness of the cotton thread. He drops the spindle with one hand and rolls the thread with the other. The cotton that he is using is home grown. The thread will be woven into fabric which will be used to make shawls, short trousers, sheets and the

baddo; a traditional garment of men in the district."

That is to say, cotton is an indigenous raw material, it is home grown and it can be processed locally into yarn for weaving textiles.

This also makes it abundant and cheap for use during textile productions; by using simple tools and techniques.

Here is a brief list of other basic materials which can be processed to make textiles:

Papyrus	Flax	Hemp	Kelp
Moss	Jute	Rice roots	Coconut fiber
Sisal	Cocoanuts	Ramie	Sea weed
Tree bark	Straw braids	Silk	Wood pulp
Lime grass	Banana fiber	Paper	Polythene
Kelp (sea weed)	Cotton rug yarn	Pawpaw leaves	Pineapple leaves

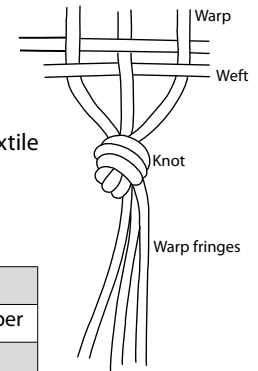
It is unfortunate that nearly all materials necessary for weaving fabrics require a longer preparation process. As a learner, make experiments with any familiar material from the table list provided. Digolo et al. (1988, 80) prefer a rational explanation: "It is often thought that materials and tools for hand-weaving are expensive and complicated. This is not the case ..."

Weaving tools

The list of tools, equipment and materials used for constructing a weave are many and they vary accordingly. It is because of this that there is a big range of end products produced by weaving. In general, some basic tools necessary for weaving can be easy to obtain or easy to produce locally. For example, to make a woven basket you may only need bare hands, piles of grass, a knife and a needle. The needle can be shaped from a bicycle spoke (*the one which supports a rim and the tyre*).

Here is a quick review of some basic materials and tools, which can be used for constructing a weave:

- a. **Needles** exist in various sizes; they are also made in different shapes and materials. For instance, a needle used for crochet making cannot be used for knitting purposes. Needle are used in very many ways like; to decorate by *sewing, knitting, lace making, stitching, darning* as well as *thatching and crocheting*.



- b. **Yarn** is for fabrics as *straw* and *palm leaves* can be for basketry and mats. Yarn or thread makes textiles and it can also do surface decoration in the following ways: *sewing or needlework, needle craft, tatting, crewel work, tapestry, embroidery.*
- c. **Dowels** are used for holding yarn as well as fastening thread on various weaving equipment. Some dowels are made from wood, plastic and metal. They work like hangers or nails to support the process of constructing a weave.
- d. **A beater** is used for pushing weft yarn into a fitting position of the weave during construction. Some types of looms use beaters to carry or transport weft thread—just like a *shuttle*. In circumstances of scarcity, a personal comb can be substituted for a beater, but this may only work well on smaller weaves.
- e. **A drop spindle** looks like a—typical toy, but it is a very important tool used by a weaver to spine yarn. A drop spindle can be made locally in this way; push a used (old) CD straight through well-made round stick of 1 feet/approximately 30cm size. At the underside of a stick, put a hook nail. A hook is used to prevent yarn from unwinding.
- f. **A shuttle** is for the most part used on some specific types of looms to hold warp yarn as it crosses (to fill) through weft yarn at right angles. Shuttles exist in different designs for specific looms. They are fitted to run through narrow spaces of delicate warp sheets of yarn. Some shuttles are hand-held and others are not. In some situations, shuttles are used like a beater.

Nearly all weaving tools and materials listed above have been carefully matched with local materials to form a co-ordinated set that can assist learners to acquire a positive standpoint about local materials. Digolo & Mazrui (1988, 63) argue, “shop-bought materials and tools ... can be expensive. It is advisable, therefore, to explore local materials and improvised tools.” Essentially, creative artists who carry on weaving tasks should focus attention on local materials and found objects. They are less expensive for nearly all actions and processes of basic weaving.

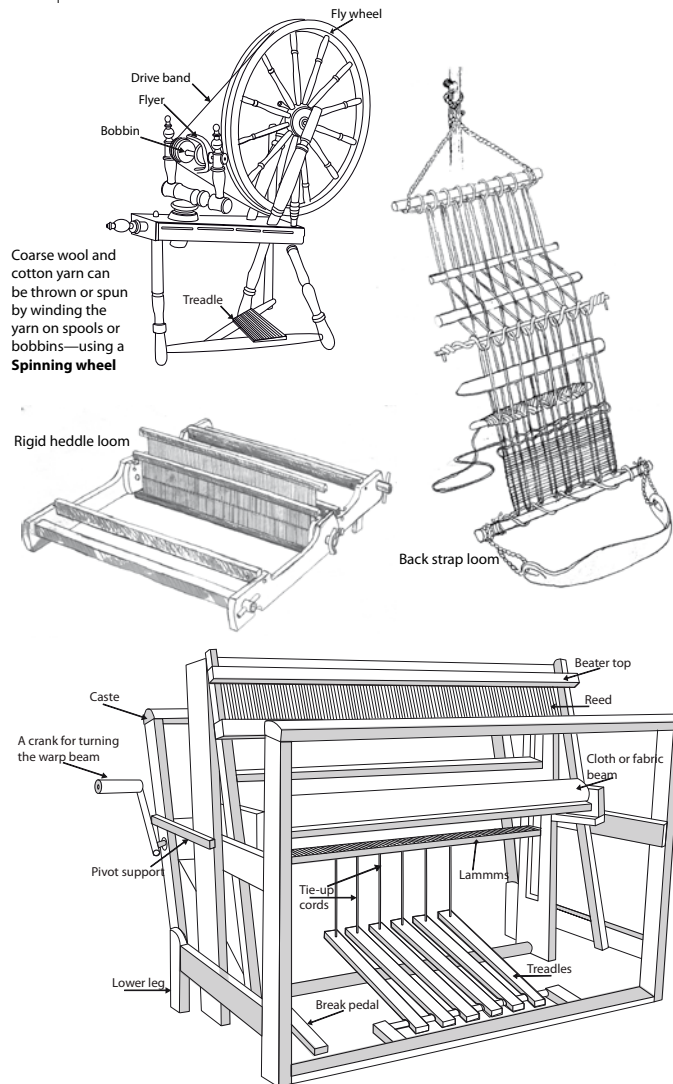
Weaving equipment

In this section will briefly discuss a few types of looms. They are necessary equipment used for weaving fabrics. The purpose of a loom is to hold warp yarn in position. Yarn has got to be straight and flat for a convenient process of weaving. And there are so many kinds of looms; they vary in size and design but their uses are nearly the same.

Here is a brief analysis of basic weaving equipment:

- a. **Foot-treadle/floor loom** is fundamentally used with a foot or feet as well as hands. Tod (1977, xi) notes, “... with a floor loom the weaving action requires both hands and feet. The feet takes over half the work and the hands are free to manage the shuttle ... Floor looms are also larger and stronger and they provide more stability and permit the use of stronger” beats of threads, “it makes it firm and the textile becomes durable. Hence, foot pedals on a foot-treadle/floor loom are used for raising and lowering warp threads during weaving.
- b. **A rigid heddle loom** makes small or light weave works such as scarfs and dish towels. Rigid heddle looms exist in very many types. They can be used for a wide range of small projects. A creative weaver who uses a rigid heddle loom will have countless chances of quickly advancing to bigger tasks or projects meant to be done on other sophisticated looms. A rigid heddle loom is quick and easy to set up. Learners in schools must be encouraged to use them.
- c. **A back strap loom** is portable and very simple to make. The procedure of using a back strap loom requires a weaver to fasten one of its two sides around the waist. The other end gets tied to a pole, door post or a tree. During weaving, the pressure applied can be modified by only bending backwards little by little.
- d. **A serrated cardboard loom** is simple to make by using a hard paper. The top and bottom sides have got to be notched. The long narrow cuts slits hold warp yarn running around up and down. This type of loom produces small trial weaves by reason of the paper's rigidity. Card board looms are capable of weaving specimen and intricate examples of a weave.

- e. **A frame loom** is easy to construct. It can be made by using four wooden sticks attached on each other at right angles. There are two types of frame looms; some type have nails on all the four side and other have them on only two opposite panels—in equal spaces and straight lines. The nails are used to hold warp yarn, which may be wound to run up and down. Frame looms are mainly used to weave smaller fabrics and in most cases carpets. See *ghiordes knots*.



Coarse wool and cotton yarn can be thrown or spun by winding the yarn on spools or bobbins—using a **Spinning wheel**

Rigid heddle loom

Back strap loom

A "typical floor loom" adopted from Cartwright's (2007, 9) *Weave*, hand made style.

- f. **A ground loom** is easy to make by using sticks or dowels hammered into the ground to support stretched out warp threads. The weaver uses weft threads at right angles, horizontally by hands. Using a ground loom necessitates a weaver to sit and bend forward since the loom is usually fastened and/or set-up down on the ground.

Ground looms can be used to weave a pile, *straps* and *bands*, as well as *flat-woven carpets* or *rugs*.

Certainly, types of looms are many and they are different in all ways. It is the same with spinning. This process is performed with various tools and machinery. That is to say, some looms run by applying extra mechanical power such as electricity and they have several extra parts, each with a definite function intended to perform a specified task.

Digolo et al. (1990, 61) observe that "... machine made fabrics are woven or knitted and patterned using different types of weaves ..." As a result, read further about looms and other machinery necessary for weaving from the provided list of references.

Methods of weaving

In the words of Jenkins (1980, 184), "... interweaving of threads offers the satisfaction of producing patterns in texture and colour." Thereby, the learner of weaving is supposed to understand that weaving offers very many creative opportunities.

Here is a review of some ideal methods weaving:

A plain weave is sometimes referred to as a *tabby weave* or a *taffeta weave*. Tod (1977, 110) notes, "A plain weave depends on the way warp is set in the reed. Three kinds of surfaces can be made in plain weaving; balanced warp and weft-face cloth." That is to say, different patterns and textures of a plain weave can easily be attained, if a weaver uses contrasting colours of warp yarn in alternating sequences.

The other method of weaving is known as **twill weave**. It uses one weft yarn passing under one and over two or more bundles of thread. This method of weaving can be used to construct tapestry, baskets, fabrics and trays.

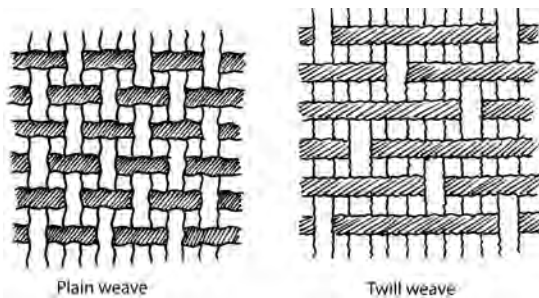
Tod (1977, 172) laments, "Cloth made in the twill weave is not only attractive but very durable and this fact makes it an indispensable textile for both our clothes" and other woven utility items produced to serve as functional rather than attractive contrives.

On a **warp-faced weave** Tod (1977, 110) asserts, "... the warp threads are usually set so closely together that the weft is entirely covered and does not show at all except at the selvages where it reverses to make each next row." Accordingly, a warp-faced weave shows patterns created as a result of lifting at (least every third) warp yarn and let fall patterning yarn threads. In this method of weaving, warp threads cover up the weft.

And then, the **weft-faced** weave manifests itself as the opposite or reverse of the warp-faced weave for the reason that only the weft is noticeable and it totally covers the warp. Tod (1977, 110) observes, "... only the weft shows and the warp is set so far apart that the weft packs down between the warp threads. The warp can be plain and interesting since it does not show ... A design should be planned in a series of interesting horizontal weft stripes."

The **balanced weave** is easy to understand and use after analysing the approach of making a *paper weave*. It uses equal numbers of warp and weft threads. Tod (1977, 116) remarks, "the weave may have a warp of one colour, ... in which case the weft may be plain because the warp stripes will lend colour and life to the rug ..." This makes a balanced weave resemble a *plain weave*.

We can conclude with Jenkins (1980, 185) creative advise; "... a beginner will better understand the principle of weaving if he or she starts with just two contrasting colours and does a tabby weave, which is simple with alternating yarn over-and-under."

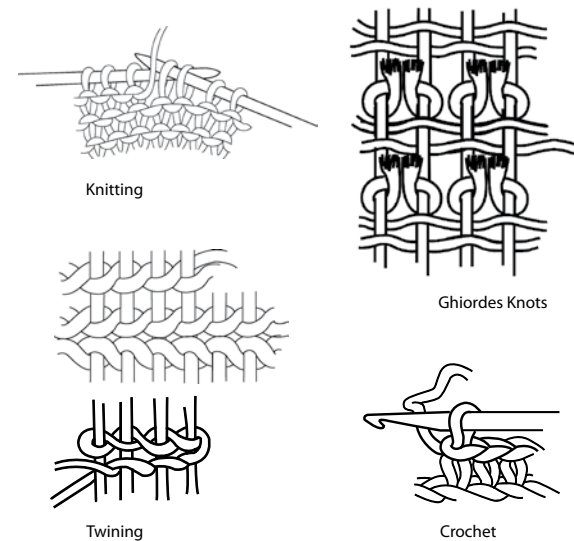


The non-woven interlacing techniques of weaving

As Jirousek (1995) reminds us, "non-woven interlacing techniques include; *knitting, crochet, netting* and *laces*."

Let us make a review of Eldershaw's (2002), concise analysis of the non-woven interlacing techniques:

Lace	It can be produced by pulling thread from a woven fabric. Almost all laces are typically made from cotton or silk; by looping, twisting, or knitting thread in varying patterns. A lace can be knitted with any weight of yarn and they are used for stylish fabric appearances.
Netting	This is a non-woven interlacing technique of weaving nets. Other examples include fish nets, mosquito nets and fabrics. Netting produces open-mesh fabrics. Two strands can be tied into uniform knots and spaces. Spacing knots will bring about change in dimensions or shapes of a finished net. Netting can be done by using very many techniques such as knotted and knot-less as well as rectangular and hexagonal weaving.
Knitting	This method uses two or three long straight needles. Knitting can be done in very many outstanding methods—like using only one set of yarns. On every advancing row, a new thread noose is pulled into and out of a prevailing loop. The active stitches are kept on a needle up to when another loop occurs to pass through them. Knitting is a technique used to weave sweaters, crafts, socks and other useful wears.



Twining	Can construct a weave with two or more strands of strong strings of yarn twisted together. It can be used to construct <i>trimmings for bags, hats</i> and mainly <i>shoe laces</i> . Twining can also be used to produce artistic door rugs and baskets.
Ghiordes knots	Are commonly used by carpet weavers. They are made on a pile of warp yarn; usually with the help of a wooden frame. Ghiordes knots are in general cut in small sizes from coloured yarn or any other material to be carefully fixed between two adjacent warps.
Crochet	“Crochet” comes from a French word <i>hook</i> . This technique can be used to produce fabrics and other functional handicraft items using yarn or thread with a hooked needle. The technique is based on the principle of using a developing thread and following one another chain stitches.

How to produce a simple weave using a cardboard box

Weaving with a cardboard box can arouse curiosities of inquisitive weavers—interested in carrying out small projects. The basic materials are thread or strings of natural fiber such as *sisal*, a pencil, a *cardboard paper* and a *cutter* or a *pair of scissors*.

Start by creating equally spaced markings of 1cm at the top and bottom sides of a cardboard box. Step by step, in equal dimensions or sizes.

Cut open each marked area and create gaps in which weft yarn shall be fitted during weaving. The attained cuts may be triangular or just straight from a single cut.

Pick yarn and then roll or tie it well on one corner of the first narrow opening. Go ahead and fit it up and down in each cut-slit on both ends of a cardboard. Fill the cardboard with weft yarn.

After that, use a needle or a similar object to fit in warp yarn. Carefully, start to weave by rotating warp yarn through the weft, side by side using a needle in a continuous way.

If the attained weave becomes gradually small during weaving it is likely that the edges of a weave have been pulled too tightly by warp. If so, try to loosen up yarn for the weave to get back into a pleasant shape—fit for a planned purpose.

Different sets of coloured yarn can as well be added on the same card board. Fasten or cut off all loose ends of thread to finish the weave.

How to make a paper weave

The technique of making a paper weave is simple and it is one of the most outstanding ways in which learners can be easily inspired into some self-evident aspects of making other crafts by weaving. “The finished paper weaving can form the basis of weave patterns.” (Digolo et al. 1990, 83)

To start a paper weave, find any two clean papers with different colours. They can be those you have already ripped up from *magazines, paper wrappers, or bond white paper*. Where possible, paint the paper to cause change for your desired colours.

Make sure that the obtained types of papers are smooth and straight. *Cut one paper and break it into equal narrow paper shreds or slits*. These shall be used as weft.

The second paper should also be cut in equal measurements as it was done for the first paper, but *do not break the cuts*. These thoroughly cut slits of coloured paper shall be used as warp.

Start to weave by fitting narrow paper shreds into the weft sheet of paper.

Weave up and down through the warp until when the weft paper reaches at the edge of the last cut, on the warp paper. This process of weaving actually involves sliding a paper through another paper in a reverse inclination. That is to say, the next warp paper strip should be carefully pushed smoothly through the slits in contrasting turns. At the final stage, the weft shall reveal a structural display similar to a checker board with regular patterns of squares in alternating colours.

Go ahead; continue to work until, when weft papers have filled up the other remaining spaces. Cut away any irregular or unwanted parts to make it ready for a display. Generally, such woven papers can be used as decorating patterns on other crafts or artworks. For example *collage, wall hangings and greeting cards*.

A paper weave.

A single weft paper (white) passes over and under alternate warp paper (decorated)



Exercise

1. By using found materials and objects from the surroundings of your school construct one set of woven table mats to be used on a serving table for guests. The executed functional weave must be made by choosing only **one** basic technique from the provided list:
Plain weave or Twill weave.
2. Construct a multi coloured weave using one of these techniques: *Crotchet or Ghiordes knots*. Suggest a theme or purpose for the type of weave you have created.
3. The community leaders in your area have discovered that recycling plastics during weaving is another way of shifting the burden to the next generation. Find a new material from plants and produce a sizable mat, which will be used in the area medical centre by visitors and caretakers of the sick.
4. The environmentally concerned clubs of students at your school have become fully aware that plastic drinking straws from soft-drink bottles are carelessly disposed or thrown away and now the school is looking for a basket to carry gifts for a visiting local leader responsible for Community Culture and the Environment.
Construct a decorated basket for the stated objective.
5. Our easy addiction to plastic or polythene bags is destroying the environment. Design and produce a new type of shopping bag to replace polythene bags. Use one technique of non-woven interlaces that will serve the intended purpose.
6. Young mothers in your community have lost their babies because they do not know how to keep them warm. Produce a woven baby shawl to be used as a blanket for solving the problem.
Choose one weaving equipment for that purpose
 - A back strap loom
 - A rigid heddle loom

CHAPTER TEN

Fabric decoration

Fabric decoration is the art of embellishing cloth or fabric for pleasant appearances.

Digolo & Mazrui (1990, 61) define “fabric design/decoration” as “the patterning of an essentially plain fabric to render it more appealing or to serve a particular purpose.” Hence, the learner of fabric decoration should not only be given the fundamental skills of depicting creative and artistic enhancements—on the surface of a fabric—for various intended aims. They can also learn about altering fabrics by sewing, it is also an approach typically used to decorate fabrics. Other methods include dyeing, bleaching, starching, waxing, printing and sewing.

In Uganda, the antiquities or ancient past of fabrics starts from tribal people such as Baganda, Banyoro and Basoga who used bark cloth for clothing, interior decorations, protection from bad weather by covering their naked bodies and very many other purposes.

According to Nakazibwe (2005, 4), “less attention has been paid to ... bark-cloth, a fabric ... that predates the technology of weaving.” Here we see that, well as there are still several tribes actively making bark cloth as part of their traditional costume not many have gone ahead to decorate it.

In Uganda, “It has been speculated that the direct trade relations between the Swahili-Arabs and the Baganda resulted in the cross-cultural transfer of ideas and skills in fabric decoration, which later translated into the patterning of bark-cloth, initially exclusively, for royal usage.” (Nakazibwe 2005, 396)

This presents the value of promoting cross-cultural understanding by the people who used bark cloth. It also led to the discovery of more ways of decorating fabrics, which we wear today for distinctive purposes.

Literally, some sources suggest that decorated bark cloth existed in other parts of Africa. *Art from Africa* (2008) an on line source is more enlightening: “The *Mbuti Pygmies* of Ituri forest in the Democratic Republic of Congo, similarly made bark cloth by beating tree barks, which they later decorated with organic pigments.”

On the other hand, people from different parts of the world especially Africa wear decorated fabrics for very many outstanding reasons. Otiso (2006, 80) asserts, “dress is one of the most important means of expressing individual, ethnic, religious, class, gender, age and professional identity.” We can conclude from this that, acquiring skills of decorating fabrics is not the only way of making it extremely useful.

Uses of decorated fabrics

Getting creative is always helpful for artists who wish to unearth the most essential uses of decorated fabrics. We can understand that from Otiso's (2006, 76) explanation about the different ways dress is used in Uganda; “It is commonly worn on special occasions such as weddings, marriage betrothals, funerals ceremonies, national formal events, church functions and audiences with dignitaries.” Yet again, in some parts of the world decorated fabrics are gender specific.

Here is a review of some basic uses of fabric decoration:

- Fabric decoration brings about *beauty and appreciation* to a wearer.
- Fabric decoration distinguishes us by roles in society. For example, a school uniform is different from one worn by a sports person.
- Fabrics are decorated for sell—in exchange for money, to earn a living. Most fabrics are exported or imported.
- Some people do fabric decoration as a *hobby*. By printing, tailoring, or creating striking fashions and design.
- Politicians or popular group supporters use decorated fabrics such as T-shirts to *show their affiliations*. Moreover, when President Barack Obama of United States was getting inaugurated in January 2009 people in Africa wore bandanas and other traditional *kangas* (a cloth routinely wrapped around; mostly worn by women—from a waist and up in the chest/bust to cover the body). The decorative wears displayed Obama's portrait with congratulatory messages.

A woman wearing a *kanga/lesu* fabric displaying a portrait of President Barack Obama of United States.



- In Ghana, the Ashanti people use a decorated fabric known as *kente* cloth for *ceremonies and rituals*. The kente fabric is beautifully decorated with various complex designs or patterns carrying meanings that embrace historic events of famous person as well as proverbs. Digolo & Mazrui's (1988, 80) affirm, “The kente cloth was designed and woven exclusively for the Ashanti kings and their households.”

Types of clothing materials

There is a big list of fabric and textile materials—from which fabric decorators sort to work out any planned design. According to Lang et al. (1989, 10), “the biggest consideration when selecting fabric for decorating projects is that you love it. Not like it, but love it. Never, never pick a fabric just because it's there. Ignore advice from friends or family.” Surely, clothing materials exist in different forms for various purposes.

Fiber and fabric

The types of fibers which provide a favourable surface for decorating textiles are diverse in numbers.

Fabrics.net (2010) explains, “some materials of fabrics are *hard, soft, manufactured or natural*” with each type reacting in a specified way for the time of adding decoration.

Here is how fabrics.net (2010) states its justifications:

Natural fibers	Are acquired from both animals and plants they include; cotton, animal hair/fur, wool and silk. Other natural fibers are executed from coconut seeds, sisal, bast fibre stems, fruit or seed husks, leaves, tree bark, roots and wood pulp.
Synthetic fibers	Include nylon, acrylic or polyester. Sometimes synthetic fibers are mixed with natural fibers to make fabrics. For example, on its own, cotton can be prone to wrinkling. So it's often blended with polyester to maintain a neat appearance.

Characteristic of fabrics

Natural fiber fabrics such as cotton and linen are largely desired during fabric decoration. These fabrics have distinctive qualities of withstanding wear, pressure, or damage caused by hard-wearing. Also, they are easy to sew and to put in shape than synthetics.

To simplify the discussion, let us review the essential characteristics of fabrics made adequate by fabrics.net (2010):

Natural fabrics	Characteristics
Silk	Is a material acquired from fiber produced by a silkworm. Fabrics created are generally worn by women. Most silk fabrics can be hand washed and they dry very quickly. It is not good to iron silk with a high setting. For, it will change colour or fade.
Cotton	It is a type of fabric made from cotton plant seed pods as a botanical raw material. Cotton fabrics dry easily and they can endure high temperatures. Sometimes cotton fabrics are combined with other fibers like polyester, linen and wool.
Ramie	Is a vegetable fiber known for its length and toughness. It has very many beneficial uses such as: It is resistant to bacteria and it is natural white in colour. Ramie can easily soak up, it is stronger than <i>cotton</i> and <i>flax</i> and it dries quickly. However, it is often mistaken for linen.
Wool	Is a type of clothing material made from fine soft curly/wavy hair of a sheep, or similar animals. Wool makes yarn used for producing textile fiber. Woollen fabrics have a soft feel and a very little shine. Wool fabrics do not hold creases or wrinkles. However, woollen fabric is usually heavier.
Linen	Is a textile fiber acquired from a stalk of a flax plant. Linen can be used to perform very many unspecified fabric actions other than the many vegetable fiber fabrics. It is elegant, beautiful and durable. Linen can also be boiled without its fibers getting damaged.
Hemp	This is a cannabis plant, commonly grown for its stem fibers. Its fibers can be used to make ropes, stout fabrics, fiber board and paper. Hemp fabrics look like linen. They remain undamaged by water better than any other textile products. When creased, It can easily form wrinkles and its fibers will break.

Apart from that, manufactured fabrics are as well referred to as *man-made*. Such fabrics are created from various fiber materials like metal, plastic and other chemicals. Some examples of manufactured fabrics include *nylon*, *polyester*, *rayon*, *spandex*, *acrylic*, *acetate* and *lastex*.

Here is a refined analysis of characteristics of manufactured fabrics proposed by fabrics.net (2010):

Man-made fabrics	Characteristics
Nylon	Is made from synthetic fibers that are not biodegradable. It is commonly used to make fine knitted fabrics and items like hosiery (socks), nets for bridal veils and for carpeting.
Polyester	Is a type of material obtained from polyester fibers. The types of fabrics it produces are easy to wash and it is also good for making bed-sheets, sofa fabrics, curtains, apparel and home textiles.
Acetate	It has got a minor difficulty to wrinkling. Thus it has a good drape. It is flexible and soft. However, acetate fibers are not strong. But they are good for making dress linings, underwear, shirts and sometimes on furnishings.
Rayon	Is made from regenerated cellulose (viscose). This fabric is frequently used in cheaply constructed garments that do not stay long for heavy wear. It has got an extremely good draping. Rayon can be used on gowns and other flowing garments.

As you continue to learn about fabrics. You will also discover many types innovated by man from natural and artificial products. For example the *morphotex fabric*, it was “named after the South American morpho butterfly, an insect characterised by its deep, jewel-like hues of blue.” (Quinn, 2010, 112)

It is a (man)-made type of fabric with smooth texture and fascinating colours, which glare illusions of blue, purple, green and red when light falls on it. But it does not contain dyes or pigments. Remarkably, morphotex fabrics can be easily recycled.

Materials and tools used for fabric decoration

The lists of materials, equipment and tools used for decorating fabrics are many and nearly all are determined by the task at hand. Digolo et al. (1990, 63) assert, “it is possible that people used bits of stalk, wood to print designs on fabrics ... from simple techniques, mainly as a result of need to speed up the printing process.”

Let us have a review of some essential tools, equipment and material, which may be necessary for decorating a fabric:

Printing blocks	Dyes and inks	Fixatives
Wax	Scissors	Brushes
Needles	Iron box	Tracing paper
Textile/fabric	Printing paste	Cleaning rug
Paper-stencils	Thread	Clean containers
Pegs/pins	Printing screens	Squeegee
Pens or pencils	Razor blades	Paints or pigments

Ssegantebuka (2003, 24) in more enlightening; he suggests printing by using improvised materials like:

Yams (stems and tubers)	Dry leaves
Cassava (leaves and tubers)	And any other textured material
Banana stalks, leaf stalk and a banana flower	Sweet potatoes (leaves and tubers)

“So the learners are advised to use locally found materials for their practice ...” In a similar way the learner should also be encouraged to discover local dyes from plants—and locally; from found natural materials such as soil or earth to decorate fabrics. According to MacDougall (1999) “job number one for any ink is to stick to the substrate and the rest follows.” We can conclude from this that necessary inks used for the time of decorating fabrics must be able to stain or infiltrate into the fibers to aesthetically unveil satisfactory surface decorations.

Here is a table illustrating a brief review of inks, which can be used to decorate fabrics from MacDougall's (1999) *Screen Printing*:

Inks	Surfaces
Special formulation Inks	Are used on fabrics by ways of screen printing. Such inks can also be used on plastics, adhesives, metals and glass. They are generally provided by authorised ink manufacturers. For example Sadolin paint.
Printing paste	Such inks are water based and they are good for painting or printing on opaque or dark fabrics. Printing paste is easy to fix by ironing. It includes <i>clear, opaque, metallic, gold and matt</i> .

Expanding ink (puff)	This is a type of printing ink, which is generally mixed with additives of plastisol inks. When expanding ink is printed on a fabric; and then Ironed (up-side down), the inked areas (emboss) form a bulge or a rounded swelling.
Discharge inks	Such inks operate by removing colour from distinct surfaces of a fabric. It is actually bleach. Discharge inks are especially good for printing on natural fibers like cotton T-shirts, casino gaming tables and for making vintage prints.
Solvent based (Water based) inks	These are water based inks used for decorating fabrics by ways of screen printing. Such inks can comfortably penetrate any desired substrate. They are resistant to washing and dry cleaning. And they are ideal for cotton and synthetic fabrics as well as paper surfaces

Decorating fabrics can also be done with natural dyes. In an article from *National Gardening Association* (2003), “... the dyes necessary for printing decorations can be extracted from a *rhizome plant*. The plant produces a *turmeric powder*, which can be prepared to creatively decorate fabrics. Other plants include the *coreopsis* yellow flower, from which *orange* colouring dye can be equally obtained.”

Apart from that, “green dye can be made from *carrot* and *spinach* leaves as well as, from a *golden marguerite* flower.” The learner should try new things and discover more about types of inks and dyes necessary for decorating various surfaces of fabrics like natural pigments from plants and/or animals.

Methods of printing on fabric surfaces

The methods used to attain decorations on a fabric are numerous.

In the opinion of Green (1964, 14), “the first series of direct prints can be made from natural leaves, feathers, wood and any other materials using a simple principle of relief printing.” This is one example of teaching simple methods of printing to decorate various surfaces. And indeed, some of the mentioned—necessary materials are easy to obtain.

Here is an itemised set of methods used to decorate fabrics:

- a. Stencil printing** is a technique done by cutting out a design from a thin sheet of paper, film, cardboard, plastic and sometimes metal. Kipphan (2001, 412) reminds us that “the correct screen tension is an important factor in achieving good print quality ... cutting films on base materials available for hand-cut stencil ... and stuck to the screen.” That is to say, the design used on a film is obtained from a roughly sketched drawing and later, it is transferred by using a cut out stencil. Then ink or paint is squeezed through cut out spaces during printing. This process has been clearly explained in a section about *screen-printing*.
- b. Screen printing** (*serigraphy*) decorates fabrics after a motif or a design has been created. According to Kipphan (2001, 55) “screen printing is a process in which ink is forced through a screen ... a fine fabric made of natural silk, plastic, or metal fibers/threads.” With the assistance of a squeegee, ink is forced through the unblocked parts of a screen (guided by a stencil) to form (positive) designs against (negative) empty spaces on the surface of a fabric. In general, the motif of a design works like a stencil during printing. Sometimes it is shaped with supporting points commonly known as ‘bridges or ties’ for holding together the various components which shape a desired design.
- c. Block printing** is a primitive way of decorating fabrics. It is well liked by decorators who print with various obtainable blocks like wood, rubber and even from old slippers or shoes soles. Kafka (1973,1) explains block printing as a “method employed when carved blocks of wood, or other substances are charged with paints or dyes and then imprinted onto the fabric.” Block printing can also be done with other tools and materials such as rubber-stamping as well as printing with a press machine. To cut a necessary wood block for fabric decoration, the artist is supposed to have small tools like knives, chisels, a mallet, a small piece of well-made wood, printing ink and a gouge.

Photo emulsion

This is another method of screen printing. It works with photosensitive substances, which are coated on a mesh to dry—inside a very dark place, for the reason that the substances of photo emulsion are light-sensitive.

Whenever light is needed inside a darkroom, use only illuminated red (safe light). Close all the doors and any other small holes, which may bring or show light inside the room. Turn on the red light before applying photo emulsion and most importantly, read instructions on a tin. Also, remember to wear gloves during working.

After dispensing emulsion on a mesh, spread it evenly on the surface of a mesh and then, allow it to dry. Then, attach a well prepared design—printed on a film—on the underside (coated with emulsion) of a mesh.

When exposure light is turned on, it will penetrate through the design to reach the emulsion area, to burn away (positive) exposure parts. The impact of this can only be seen at a stage of washing—a mesh.

It is in actual fact necessary to consult from experts before going ahead with any process of photo emulsion.

Type of printing meshes

A mesh is another name for a *screen*. The main purpose of a mesh is to support an ink blocking stencil during printing. Board (2002, 3) is more enlightening; the word “screen mesh” is used as an explanation for a fabric that we stretch on a frame. “Silk was the original material used, hence the name” silk screening, “although the word is rarely used today ... Multi-filament and mono filament polyester are the products used, mono filament being the most popular.”

Let us have a brief look at a few types of meshes:

- a. Silk mesh**, fabric decorators trust the silk mesh for it has got high quality and high precision. Indeed, the word silk screen printing came as a result of using this mesh. It looks like fine silk gauze stretched over a frame. A silk mesh can print on any fabric material, ceramic tiles, advertisement, glass, shoes and handbags et cetera.

- b. Nylon mesh** is strong, lightweight and elastic. If properly kept, a nylon mesh can work for a longer period of time. Mostly, cheap types of nylon mesh can be locally obtained by recycling old home curtains. To be sure that the material chosen can serve you well check if it has got a smooth texture and—also look through with your eyes. If you can see through then, it is likely that the cloth material will work as an improvised mesh.
- c. Polyester mesh** is cheaper and commonly known to have some good qualities needed for printing. And today it has been made better with a new name *mono filament polyester screen*. It is very strong, elastic and resistant to printing chemicals. As an alternative, a polyester screen cloth is more durable than a silk mesh.

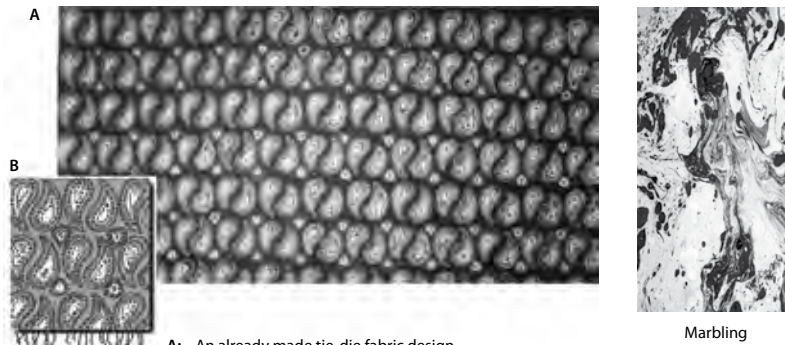
Equally, other creative artists carry on with their printing processes in different ways by using locally made screen meshes from *lace mesh fabric* and *mosquito nets*. The only complication of these meshes is that they are not easy to stretch and they are not very strong.

Approaches of decorating fabrics

In the provided table checklist we shall make a brief analysis of some few approaches necessary for decorating fabrics. Ssegantebuka (2003, 28) suggests, “the learner should be encouraged to experiment freely with tools, materials and process of every single technique, to get the feel of each unique” occurrence. Thus, the techniques of decorating fabrics are numerous. If possible learners must be given a chance to make trial attempts with each approach provided:

Waxing	Decorates fabrics with hot wax and colouring dyes. When a hot wax is applied on the surface of a fabric, it sets apart—areas not to be dyed. Then, colouring dyes are wetted on the fabric surface to enhance the design. Removing wax can be done with hot water and by ironing the fabric. The ironing technique works like a 'sandwich' because the batik artwork is supposed to be spread between papers under and on top. The types of waxes used for decorating fabrics include: <i>Wax flakes, wax block, candle wax, bee wax and paraffin wax</i> . Read more from <i>How to make a simple batik</i> .
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Twisting	Can creatively decorate fabrics by wringing (squeeze and twist) a cloth, tie it to hold up in shape. Then, douse a colouring dye all over. Open the twists to see the obtained results, at a later time. Take it to dry.
Embroidery	Decorates fabrics with a needle by sewing and stitching coloured thread in techniques such as <i>needlepoint, needle craft, tapestry, tatting, crewel work</i> . Some examples of embroidery stitches include; <i>cross, double-cross, fly, couched trellis, lazy daisy, button hole and closed herringbone</i> .
Dyes	Make decorations on fabrics by holding on the fibrous surface of a fabric. Dyes constitute a great variety of colouring substances like <i>natural dyes, food colour dyes, direct dyes, naphthol dyes, vat dyes, sulphur dyes, acid dyes, reactive dyes et cetera</i> . “Avoid skin contact with the dyes or auxiliary chemicals.” (Dahl 2004, 24)
Knotting	Decorates fabrics by fastening knots. The tightly fastened fabric can subsequently be twisted, or tangled on considering the arrangement presented by the sketch. Adding colouring dyes can be done by immersing or pouring spills of dyes onto its surface. When dry, open the fabric to check for the design outcomes.
Appliqués	Uses small pieces of fabrics to enhance or decorate another surface of a fabric. The selected pieces of colourful fabrics are attached on a new fabric by sewing, onto another larger piece of cloth to form pictures or patterns. Appliqués decorations appear as sewn ornamental patch-works. Mostly, the selection of colours, materials and decorating patches are usually determined by the purpose.
Tie and dye	Produces decorative textile patterns by sewing and tying using strong (nylon) threads. Tying separates colours in some sections of a fabric to form the design by guarding colouring dyes from penetrating into the protected spaces on the surface of a fabric. This method is done by using the following brief steps: sketching a design on the surface of a fabric, stitch each line of the sketch with threads. Then, pull and tie them tightly—one by one—soak the fabric to put colour in each completed stage. (Do the same for the next colour) Open the 'ties' after allowing the fabric to dry.



A: An already made tie-die fabric design
 B: A section of the fabric showing patterns with sewn thread, after untying the design; to shield it from colouring dyes.

Marbling

Pleating	This is a creative way of decorating fabrics by folding (gathering) to make double or multiple folds. When a fabric is properly folded into pleats with its gather tied using a strong string, it will form a zigzag bundle. Then, pour or splash colouring dyes on the pleat in a disarranged or divergent ways. Open only when it has become dry.
Marbling	Decorates fabrics or paper by floating colouring pigments on water. The marbled pattern transfers to the surface of a fabric by laying it on top; to pick the buoyant swirls or spiralling patterns, then remove quickly. The attained marbled blends will appear like long, thin, swirling marks of different forms, colours and shapes. If more than two pigments of colours are used, the generated design will show mixes of pulls and twists of colours in contrives of shapes. A creative way of doing marbling involves pouring and mixing small quantities of liquid <i>gloss paints</i> into litres of water to make paints weaker for any desired pattern in an open and wide container.

In conclusion, before making decorations on a fabric regardless of technique it should be clean, well sized and properly pressed or ironed.

Environment as a source of inspiration for decorating fabrics

Everything about decorating and designing fabrics can easily be extracted from the beautiful environment around us—through research and by drawing regularly.

Creative artists should be aware that they are also required to have familiar knowledge of using elements and principles of design, apart from skills of simplifying obtained shapes to form planned motifs.

Sources of inspiration for making fabric decorations include the delightful colours, patterns and *shapes of animals, birds, leaves, flowers, plants, butterflies, insects, tree barks et cetera.*

All these and more can be used to acquire the necessary designs for decorating fabrics ... “What limits man is his ability to manipulate them” Ssegantebuka (2003, 23) adds.

Repeat patterns

We have already discussed repeat pattern in chapter five (*Graphic design*). As a consequence, we have got to remember that repeat patterns are used as decorative arrangements created by replicating motifs. And there are so many types of motifs used in the course of decorating fabrics. Some types originate from *abstract, organic and inorganic* sources of inspirations.

Here is a checklist of some common characteristics of motifs:

Motif	Characteristic
Inorganic	The challenging pursuit about these motifs is that they are not easy to manipulate and then create <i>movement</i> as well as <i>action</i> because they are mostly made up of geometric shapes which are without vagueness and regular lines. For example rectangles, circles, triangles and squares.
Organic	These are motifs made from distinct aspects of the physical world and they are regarded as conventional. “They reveal curvilinear qualities that suggest growth and movement.” Fichner (2007, 51-58) says. Many artists use organic shapes because they work well in accordance with the accepted manner of creating designs.
Abstract	These motifs appear with decorative designs or patterns, which display conceptual visualisations of shapes, forms, colours and textures. As an example look at marbling. Sometimes abstract motifs are developed from real (life) drawings, which are further adjusted by exaggerating some of their parts.



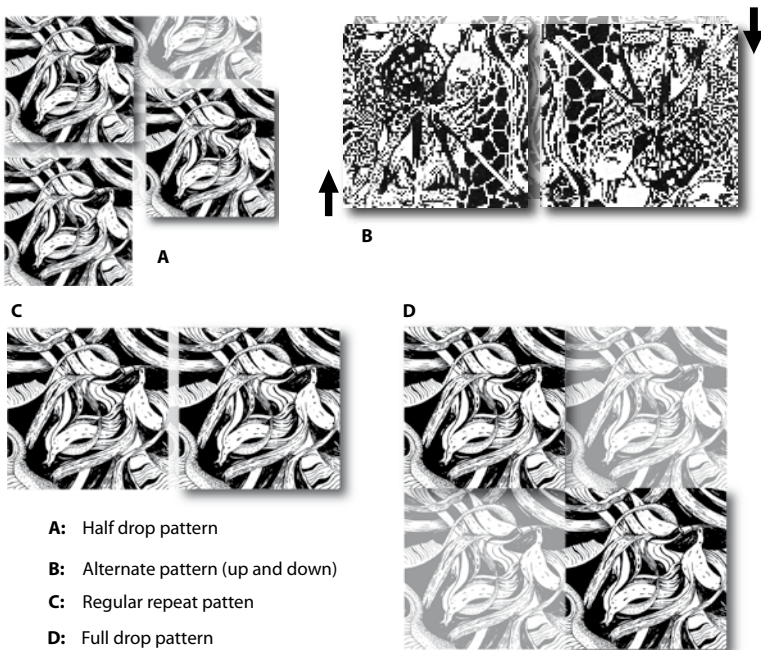
A banana peel, it was used as a source of inspiration to create motifs for half drop, and full drop repeat patterns

Types of repeat patterns

During printing, a motif is repeated on a fabric in different approaches. For example, it can be done by using a *square network*, *full drop*, *regular* and *half drop*, *alternate* as well as *inverses* repeat patterns. All these and more can assist the creative artist to decorate fabrics in the most favourable ways.

Here is a review of the various ways a repeat pattern can get repeated to decorate fabrics:

- a) **A square network** pattern shows regular shapes of designs with equal straight sides and right angles. If a mistake concerning its general shape happens and not earlier on realised by a designer. Then, the repeat pattern is likely to fail during printing. The prints will not flow in a straight line. It is therefore important for the design of a motif created to be fitted with *registration marks* on each side in the course of planning a square network pattern.
- b) **An inverse repeat pattern** shows the repeats of a motif in a mirror-like reflection, one after another. "Inverting or reversing ... the design is turned a quarter turn, either clockwise or counter clock wise for each



successive imprint position." (Kafka 1973, 27)

During printing, the original motif periodically repeats by showing one section in a normal range of exact arrangements. And the next pattern is printed in a reverse—in an opposite direction.

- c) **Alternate repeat** patterns display patterns, which occur in turns—by rotation side down or up in turns. That is to say, a motif can be made to alternate by rotating around at a single point in a regular recurring order; facing up and then down moving uniformly in one direction.
- d) **Full drop** patterns run in a straight grid of horizontal and vertical lines during printing. Kafka (1973, 26) argues, "A full drop repeat ... is sometimes known as the diaper repeat, because of the triangular pattern which it creates to the eye as one views it." The obtained patterns appear in rhythmic right angles and rows.
- e) **Half-drop** (step repeat) patterns display part of a design or a motif down, or up. On half drop, the motif is purposely made to appear staggered by a half in two equal or corresponding parts—by rows or columns. Kafka (1973, 26) explains that half drop "... shows each horizontal row of imprints dropped one-half of an imaginary box." That is to say, the second row of a motif can be made to appear precisely dropped and then another one may repeat down at exactly half of the area.

In a thorough manner, it is important to add or include registration marks on every type of motif or design created before setting it to function as a repeat pattern. Necessary registration marks must be put on a design during the last stage of planning a motif and they are extremely unavoidable for designs with more than two colours.

Decorating fabrics with more than two colours

In general multi-colour prints display more than one colour on a surface of a fabric. The process and technique is determined by methods and approaches chosen by a fabric decorator. Let us say; if the obtained motif shows three colours. Then, the process of executing a design will demand for three different silk screens or mesh(s) for each colour in a separate way.

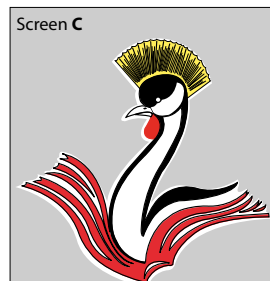
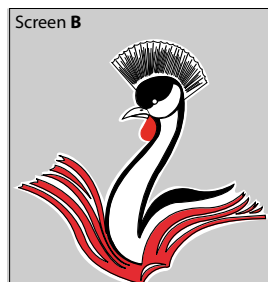
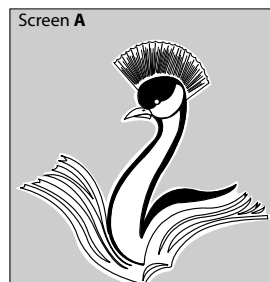
Start by preparing a separate screen or stencil paper for each colour using one of the methods—indicated in the section associated with *screen printing*.

Assuming that the task undertaken is on a low cost budget, a paper stencil, a soft sponge, fabric or a cloth material and printing ink (paste) or colouring dyes from plants can be enough for a start.

Almost always, colours chosen—are expected to be few, at least not more than three. Reason being that the more colours you use, the higher the costs of printing and production.

Since each colour is separated on a full component of a mesh, or a stencil. Apart from that, use a light table to draw each colour on a stencil separately. Light tables are different; they are made in a horizontal or tilted box. On top, there is a translucent glass with a light behind it. As an alternative you can use the ordinary window containing a transparent glass. After that cut out each shape of a colour on a stencil. The shapes must be exact.

If all colours at hand are well represented on separate stencils; fix each one of them on a separate mesh in precise positions. Print one colour at a time with the assistance of a sketch and follow the provided guides presented as registration marks.



Screen A:
The first colour; (Black) is printed

Screen B:
The second colour; (Red) is added on top of black

Screen C:
Yellow colour is printed last; to finish the print.

How to make a simple batik

The inexperienced learner should be guided on how to make batik in this way:

Start by making a sketch and where necessary add some few colours in the sketch. Belfer (1992, 26) observes that “A certain amount of preliminary thinking is always necessary, but a complete coloured” sketch “can be very restricting if used as a model to be duplicated in the batik process.” However, your favourite painting or drawing can also be a good starting point for the necessary sketch. And surely, as learner your first batik may not at all time produce satisfactory intended results.

That is to say, save materials to make a new one soon after, or when you realise that you are unable to meet the expectations of the task at hand.

Here are some tools and materials, which may be needed to make the batik artwork:

Bucket with water	A clean cloth	Source of heat, stove
Sketch	Sisal brushes	Pins
Paraffin wax	Dyes	Iron box
Salt for fixing dyes	A tin for heating wax	Sheets of old newspapers

A cloth or fabric meant for a batik artwork should be clean white. If possible use a pure cotton fabric. An already coloured cloth material may cause wrong interpretations of colours after sustaining colouring dyes.

Transfer the sketch by drawing it on a cloth in a suitable larger size preferred. As you transfer the sketch, it is feasible to eliminate most of the unwanted details—keep only what you think is worthwhile (detail) as you pay serious attention to the essential elements and principles of design. “In batik, line and shape formations are the initial design elements considered.” (Belfer 1992, 26)

After sketching, make ready the (cloth) surface of the batik by mounting newspapers on one side of the cloth or fabric.

That is to say, papers should be fastened or pinned below/ under; not on top—where the outlines of a sketch were earlier on drawn.

Then, lay the pile (of the fabric and underpinned paper) down on a clean flat surface. After that, boil wax.

When wax dissolves into liquid form, pick a sizeable sisal brush that is harmonious with the apparent detail as it may be seen on the sketch.

Slowly by slowly, dole out hot wax to feel up all the parts that you regard—to represent areas for—direction or source of light. In the meantime, the process of waxing and application is habitually determined by the nature of a planned design or task.

The more you add wax at a beginning stage, the brighter the results you will finally be able to achieve. Balance wax distributions throughout and liken every detail of the spillage (of hot wax) with the specified source (direction) of light.

Generally, at this stage any mistake done is irreversible. Mix a small spoon of salt; it fixes colouring dyes into the fibers of the fabric—with a dilute colouring dye of your choice in a separate container, add enough water, then spread the attained mix all over the surface of the batik.

Also, the colouring dyes used on batiks are added in various ways or stages—appropriate to particular circumstances; starting from lighter (usually dilute) to (strong) darker.

Occasionally, a creative artist can use monochrome colours alone or primary colours as red, yellow and blue.

Some types of dyes are used after boiling then on fire, while others are used directly. Belfer (1992, 52) warns, “Although some dyes are nontoxic, many are manufactured with substances considered to be toxic if they are taken into the body even with natural dyes.” Be very cautious.

Wet or soaked batik artworks have got to be taken out to dry at each stage of adding colouring dyes. After that, repeat the same process of waxing, stage-by-stage over and to the further side of the already waxed areas.

As a matter of fact, batiks appear nice with cracks—caused by covering the entire artwork surface with a thick solid layer of hot wax added by spreading wax indiscriminately all over an already finished batik. Wait for wax to dry and then break layers of wax into cracks.

Use a sponge to add a very strong colouring dye of your choice into the cracks by squeezing hard, for dyes to penetrate thoroughly into the surface of a fabric. (At this stage pins must be taken-off).

After that, take it out to dry. And prepare to remove off all the papers and wax by squeezing and rinsing.

When all wax is removed from the batik artwork, iron it well. This is supposed to be done with clean papers below the batik and above—the batik artwork shall be sandwiched between the layers of papers.

Where there is need to rectify or emphasise essential details, a marker or pen can be used. But, make sure that added details do not influence any of your misguided judgements such as mistakes. Frame the finished batik and make it ready for a critique or an exhibition.

Exercise

1. Design a motif from a source of inspiration obtained from the surroundings of your classroom or school. It will be printed in two colours for a table cloth needed by the wild life club of your school.
2. Produce a 6 yards office curtain using multi-colours in a tie-dye technique. Use a motif from a source of inspiration that represents a place of worship in your neighbourhood. The colours and images used in the motif must depict some definite activities of the worshipping group.
3. The majority of your friends have dropped out of school because of manageable social dilemmas like:
 - a) Early marriages
 - b) Problems of drug abuse
 - c) Homosexuality and promiscuity
 - d) HIV/AIDS

Choose one theme from the provided checklist and one approach of decorating fabrics that you know to create an awareness campaign in your school.

CHAPTER ELEVEN

Sculpture

Sculpture is the art of creating two or three dimensional forms that occupy or interact with real space.

Creative functional artworks of sculpture can be produced in various forms such as *abstract*, *real-life* and *relief*. Yet gain, nearly all kinds of sculpture artworks can be produced by using materials like *wood*, *stone*, *iron*, *metal*, *cement* and very many other recycled and natural materials.

Apart from that, sculpture artworks can be creatively executed by using techniques like *carving*, *assembling*, *welding*, *patching*, *modelling* and *casting et cetera*.

In Africa, sculpture was done for *magical worships*, *rituals* and *other social customs*. It was mainly decorative, sometimes smooth or textured, carved from wood or clay. Levin (2005, 111), offers a rational explanation: "Until colonial times, when a tourist market for art was developed, almost all African sculpture had—and still has—religious or magical purposes."

Besides, most of the sculptural artworks found in the various parts of Africa are linked to the locale of the executing material, as well as the environment and people's ways of life. For instance "most West African sculptures are carved in wood, but superb bronze and iron figures are also produced, while some funerary figures are created in terracotta and mud. The strange and uncompromising forms found in West African sculpture are rarely the unique creations of an inspired artist—the sculptures have always been made to fulfil specific functions." (Ham 2009, 69) notes Clearly, then, as creative artist and learners of sculpture, it is important to learn more about sculpture and its functions from African tribal people—their various ways of making useful sculpture from obtainable materials especially wood and basing on reasons such as easy *harvest*, *abundance* and *availability*—in *sufficient large quantities*; adequate for producing sculpture artworks.

Trowell et al. (1953, 117) affirm that in Uganda "... The Bamba carved wooden figures" in addition to "the Bahutu and Kiga." The "Banyoro did carving" as well as "modelling." Furthermore, "Carved figures" were also found "among the Lango."

They made "clay representations of animals on granaries" in figurative two or three-dimensional art forms. Ultimately, today sculpture is used for very many purposes. Hence the reason why sculpture artworks are commonly found in public spaces or places such as inside and outside community buildings like hotels, schools and churches.

Elements and principles of sculptural design

A successful artwork of sculpture is more than forms. Just like every other artwork. Sculpture is produced on suitable guidelines of elements and principles of design. Mujjuzi (2009; 19) comments, "Space, mass, volume, line, texture, light and movement are included in elements of sculpture" as a way of achieving the most delightful designs of sculpture artworks.

Let us have a brief analysis of the basic practical information concerning elements and principles of design and how they can be used on a sculpture artwork:

- a. **Lines** and **contours** are imaginary elements of design used to enhance structural interconnections of forms on a sculpture. Line and contour are guided by outer and inner line formations that give movement and vitality to the sculpture. "Movement patterns may be curved, angular, geometric and so on." (Peck 2007, 43)
- b. **Mass** is counterbalanced with solid. We can briefly say that solid affects space created by a supporting material used to execute a sculpture artwork. On the other hand mass is the solid material of a sculpture. It fills up in the space. Both mass and solid—in the actual world, exist in three-dimensional space.
- c. **Colour** is by large a natural occurrence of sculpture. It is usually determined by the type of materials used to execute a distinct sculpture artwork. Several materials in which sculptures are done can be finished without adding colour on their surfaces. Reason being, surfaces of sculpture artworks can still appear well without adding any colour pigments. Peck (2007, 78) discerns this point: "the use of colour is, of course, a matter of personal preference." For the reason that, sometimes through experiments, surfaces of sculpture artworks are decorated with paints.

- d. **Voids** are seen as open spaces that connect one area from a positive continuous part of a sculpture. Peck (2007, 19) notes, "... negative forms are created by the empty spaces or voids between the masses." Voids are used for enhancing a sculpture design, managing the weight and in some situations using voids accounts for the increased prevalence of balance.
- e. **Rhythm and movement;** "... just as you feel rhythm in music and dance, often to the point of moving your body to its engaging patterns, so will you feel rhythm in the emerging sculptural forms of your imagination." (Peck 2007, 16) Clearly, then, rhythm and movement can be useful in sculpture for they are closely connected in the matter of character, form and function.

As you continue working, you will discover very many other important elements and principles of sculptural design. For the meantime, let us try to look at the different ways in which a sculpture artwork can be executed.

Methods of sculpture

The various kinds of sculpture artworks that we see are in most cases executed in two ways; *direct* and *indirect*. "Whether carving is direct or indirect it makes no difference. It is the finished object that counts." (Curtis 1999, 98) Here is how both methods can be used to produce a sculpture artwork:

1. **Direct** (*taille direct*) is a procedure explained by Rich (1988, 265) with a poem from Michelangelo; "... the sculptor never invents anything that does not lie concealed and resting within the block of marble and that no hand that is not animated by the spirit will extract from the block what lies concealed within ..." Undoubtedly, this is a subtraction method of working. Because of that, the direct method of producing sculpture artworks occurs by ways of cutting off unwanted layers outside from a material to obtain a shape (artwork), which represents the sketch.
2. **Indirect carving** uses a small model known as a maquette. Thus, the sculptor copies the proportions of a small scale model to shape a sculpture artwork. Rich (1988, 262) asserts, "Indirect is physically economical for the sculptor."

Nonetheless, nearly all indirect sculptural artworks can easily be executed from materials such as clay, cement, soap and wax.

Types of sculpture

Sculpture can be made in different ways such as *relief*, *inverse/intaglio* and *high relief*. In spite of that, relief sculpture is meant to be viewed from only its front position and *sculpture in the round* stands in open space, where it can be viewed from nearly all directions. Others are *environments* and *kinetics*. All these classified groups are important and they are highly regarded by nearly all practicing sculptors.

Here is a brief analysis of each one of them:

1. **Relief sculpture** shows some of its parts as raised up against those, which are flat on the outside part of a two-dimensional area depending on how depth has been involved. It can be executed with materials like clay, cement, wood and metal et cetera. Most times, the process of making a relief artwork depends on demands stated in a task at hand. That is to say, it can also be creatively produced in other variations of low or inverse, high relief and abstract et cetera. Here is how:
 - a. **Bas-relief** (*Basso Rilievo* or *low relief*) displays low relief projections of ideal images. It is nice to use bas-relief on sculpture compositions that contain very many figures. For a clear example, look at the surface of a coin—officially used as money. A coin is almost always made with symbolic images appearing as low relief or bas-relief.
 - b. **High or full relief** (*Alto Rilievo*) shows images leaping out from a background surface. Rich (1988, 8) explains, "This is the highest type of relief. The forms are often modelled in the full round, but remain attached to the background, although some portions ... may be entirely free from the background." High relief contains high projections so much as almost three-dimensional.
 - c. **Inverse relief** or sunken, hollow (*intaglio relief*) sculpture artworks are made by cutting shapes into the surface of a material to form a hollowed out negative representation of an image.

Examples of inverse relief can be found on architectural walls found in Egypt. Rich (1988, 7) asserts, the Egyptians outlined figures “by means of grooves or furrows cut around forms.” The images appear clearly strong and noticeable on account of the sun found in that region.

2. **Abstract sculpture** does not represent perceivable realism. Sculpture artworks made in abstract forms rely on shape, form, colour and texture. They are also characterised with concept-oriented subject matter. Ultimately, abstract sculpture is common done by creative sculptors who get captivated by exaggerating forms.
3. **Kinetic sculpture** is rare. Nonetheless, such artworks are commonly described as installations because almost always they are constructed and exhibited within a gallery. Buser (2006, 529) observes, “In recent years, the number of installations has exploded. Countless painters, photographers and video artists ... Sculptors have constructed kinetic sculpture—work that actually moves because of wind or water or is powered by an electric motor.” Thus, a kinetic sculpture may sometimes involve using video or moving parts and the relation of parts to the whole is important for the interpretation of a sculpture artwork.



A terracotta bust made with baked or fired clay.



A round sculpture made with cement.



Relief sculpture in gipsware

4. **Sculpture in the round** is an explanation used for free standing artworks made to appear in three dimensional spaces. Sculpture in the round is characterised by three-dimensional shapes and solid geometric forms. A “free standing sculpture, or sculpture in the round ... is the type that can be viewed from many angles,” (Michael et al. 2007, 132) for example a statue of a person or an animal where someone could walk around.”

Tools, materials and equipment for sculpture

The basic materials, equipment and tools—used for executing sculptures are many. Bell (1983, 97) laments, “The particular interests of a sculptor would lead to some additions and omissions although some tools are made for specific purposes.”

Here is a checklist of some necessary tools, materials and equipment used in sculpture:

Traditional/ conventional materials	These are the long-established materials used by sculptors. They include <i>clay, wood, soil, stone, cement, wax, rubber, Plaster of Paris, marble, Iron or metal</i> et cetera.
Tools	Include; <i>stone, mallet, sharp sticks, hoe, nails, screws, nut, stone, knife</i> and a chisel. Others include <i>a hammer, gouge, rasp/ file, armature wires and callipers</i> . Also, your fingers are partly used in habits carried out by certain tools.
Equipment	Depends on the artist's inventiveness and inspiration. Examples may include <i>a bonfire kiln, a cardboard box for storing finished works, platform-stand, pedestal, bench and tables</i> used during moulding and carving.
Non-traditional/ unconventional (found materials)	It is up to a sculptors' creative mind that certain objects can be substituted into useful materials—to justify the purpose of a favoured material. For example <i>discarded plastics, fabrics, metal, sand, saw dust, lacquer or wax, plant glue, bones, mud, anthill soil and papier mâché</i> et cetera.

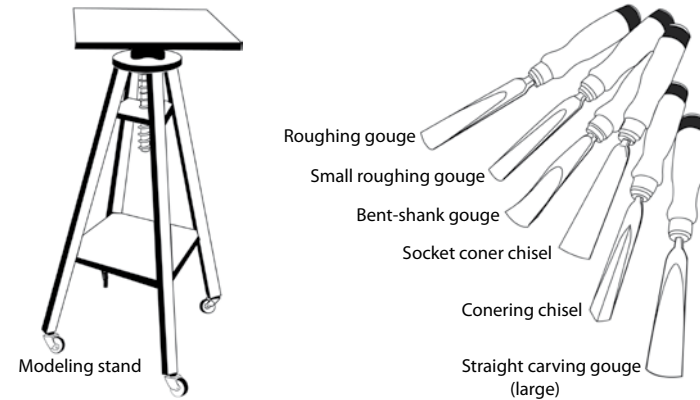
From various local materials and found objects we can find useful items or objects for executing sculpture experiments, which may later result into powerful artworks. Mujjuzi (2009, 27) is more enlightening: “Organic plant materials,” are within easy reach of our learning surroundings.

Distinct examples include “dry leaves, tree barks, grass and seed pods.” In a remarkable manner, nearly all materials of sculpture listed can be easily collected from “shrubs, compounds and garbage collection centres” free of charge.

“Any material that can be shaped in three dimensions can be used sculpturally. Certain materials, by virtue of their structural and aesthetic properties and their availability, have proved especially suitable. The most important of these are stone, wood, metal, clay, ivory and plaster.” (*Encyclopaedia Britannica 2003, 46*)

So let us make a brief analysis of some few basic materials required for producing a sculpture artwork:

- a. **Stone, wood and clay** are natural materials used to execute sculpture artworks. They can be found in most parts of the world. Stone, wood and clay can be combined or used separately in various creative ways. To produce a sculpture out of them, the artist can do carving and/or moulding. Ultimately, stone, wood and clay are extracted from their places of origin. For instance clay is obtained from swamps; stone is mined from quarries or everywhere in different sizes and colours. On the contrary, wood comes from forests.
- b. **Plastics** are everywhere around us. Rich (1998, 353) explains, “A plastic is a substance that can be softened, cast moulded, or pressed into a desired shape or form.” Plastic is cheap and easy to acquire. To shape a plastic into a sculpture artwork, the artist has got to heat a plastic with fire, or burn it into a solid substance with a source of heat or fire. That is to say, choose the right types of plastics to avoid spoiling an obtained sculpture melt. Therefore, make categorises for the different kinds of plastics during planning and preparation.
- c. **Iron (metal)** is an ordinary material used in sculpture for constructions. It might not be common for many sculpture artists mainly because metal is expensive. In Mujjuzi's (2009, 26) *Methodology*, “ring wires, binding wires and wire mesh” were used for the time of explaining procedures and methods of making a sculpture. In spite of that, Iron or metal used in sculpture—at times; can be obtained from thrown away (found) metal objects.



A few examples of **equipment and tools** used for creating **sculpture artworks**

- d. **Wax** is another material used in sculpture. It can make maquettes and it can be used to polish and preserve surfaces of finished sculpture artwork. The types of waxes used by sculptors include (candle) paraffin wax and bee wax. Waxes are used by nearly all sculptors for some of these few justifications:
 - It is easy to mould at normal temperatures.
 - Its tactile quality can be transformed by adding other substances such as oils or fats.
 - It is easy to cut or carve into very many shapes.
 - It can also be quickly recycled.
 - Colouring dyes can mix well with wax.
- e. **Cement** is a grey or greenish powdery substance commonly used for construction. It is also a good material for building sculpture artworks—done by mixing it with sand and water to make mortar or concrete. Sculptors prefer using cement for its speed of setting and hardening. A sculpture made out of cement is generally resistant to atmospheric corrosions especially when proper mixtures are done. Cement is cheap and easy to handle.
- f. **Plaster of Paris** is a white powdered substance which will become hard when water is added and then mixed together with it—in proportionate quantities.

Sometimes plaster of Paris is used for full artwork executions and for making moulds used during casting. Rich (1998) argues, “plaster of Paris is the material of choice when the object to be cast is large ... It is also employed as a reinforcing material for flexible negatives of agar, rubber and gelatine ... For sculptural use, the finer-grained plaster are preferable.” A creative sculptor will spend less while using plaster of Paris; by cutting tatters of raffia or grass and then mix them with plaster of Paris. The technique adds durability and reinforcement. It is as well very economical.

Sculpture techniques

Different approaches can be used to produce artworks of sculpture. “Although a sculptor may specialise in, say, stone carving or direct metalwork, the art of sculpture is not identifiable with any particular craft or set of crafts. It presses into its service whatever crafts suit its purposes ...” (Encyclopaedia Britannica 2003, 49)

Let us make a quick review of the basic sculpture techniques using a table checklist here below:

Riveting	Is used by sculptors to attach sheets of metal or on wood and other surfaces. Riveting can be done on small or big sculpture artworks. It can make magnificent decorative textures. It also serves as a hammer to a nail.
Fabrication	This technique constitutes construction by using metal or wood. The action and process at times requires welding to construct artworks of sculpture. Metal artists usually seek professional help from specialists.
Nailing	A sculpture can be built with the assistance of a hammer to drive nails into a surface as a way of holding two parts together. Apart from that, nailing alone can be used to produce relief sculptures on two dimensional surfaces. Nails just like hammers are made in different sizes.
Modelling	A sculpture artwork can be executed in approaches like, <i>slabbing, pallets or balls</i> and <i>coils by ways of modeling</i> ; this technique uses the additional approach—with materials like clay, wax and paper machê. Rich (1988, 512) offers a rational explanation: “Modelling is a process of addition; whereas carving is a process of subtraction.”

Carving	This is among the commonest techniques of producing a sculpture. It can be done by ways of cutting or engraving to obtain a shape of the presumed sculpture artwork. Carving can be done on materials like wood, stone, clay, glass, cement and some types of plastics.
Construction	Is mainly architectural. A sculpture can be creatively erected with materials such as card board papers, books, metal, stones, pieces of wood and from any solid firm materials that are able to sustain weight or pressure—hard enough to with stand a construction process.
Tying	This is a technique of attaching parts of a sculpture artwork—by fastening them together using a string, a wire or a similar cord. Spilsbury (2009, 9) argues, “constructed sculptures are made from different materials combined and joined together to form a three-dimensional object.” By using a system of “tying together.”
Soldering	This technique requires special hand held equipment used for joining wires and other metallic objects together. Hale (1994, 45) asserts, “soldering is an extremely useful technique used by sculptors. It makes a very strong bond between metal surfaces and it does not require the high heat that welding does.” It is also good for surface decorations.
Assembling	It is easier to do assembling, mainly because a sculptor can use objects within easy reach to make sculpture artworks. Baldwin (1967, 27) argues, “when a sculptor assembles his creations from scrapped machine parts, setting them in motion is an obvious development.” Distinctly, well composed assemblages can result into free standing sculpture artworks round and relief.
Casting	Is a technique used by sculptors to shape artworks by using a mould and solid materials of molten metal or slip clay and sometimes wax—to mould a resemblance of the original artwork. The obligatory material meant for use as molten has got to be liquefied by heating, or be saturated with water. Materials used during casting include wax, sand, sawdust, plastics, cement and sometimes glue. Mamiya & Kleiner (2009, 3) assert, “casting sculptural technique falls into two basic categories, subtractive and additive.” These must also be accredited to the learner.

Gluing	Can make sculpture in very many different ways. This is mainly because; there are so many types of adhesive substance which can be used as glue to make sculpture artworks. Peck (2007, 161) argues, "... gluing may be a better choice" to build small sculptures. Whereas "any of the objects used in found—object sculpture may also lend themselves to gluing rather than drilling." The learner should be notified that outdoor sculptures necessitate using waterproof glue, while indoor requires carpenter's glue.
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Preparing clay for making a sculpture

Despite the fact that Michelangelo regarded clay as an inferior medium suitable for only producing maquettes, it is still greatly desired by many sculptors today. Clay is cheap and it is one of the most accessible sculpture material locally used in many African art schools.

As a sculptor who wishes to produce artworks from clay, it is important to have an acquaintance with clay by visiting its sources, dig and touch it. Clay is mainly excavated from swamps—in places where deposits of stiff, sticky fine-grained earth form as a result of a gradual chemical weathering of rocks. Thus, go and visit a swamp so that you mine your own clay.

Clay is a natural material with a fine quality, which allows it to be easily shaped—governable drying and softening.

If clay is dug up from swamps, it goes through different stages of preparations. That is to say, using clay with all its impurities may cause undesirable results for the executed final artwork of a sculpture.

Impurities can be removed from clay by handpicking and also by making clay more wet (slip). Or, dry and smash it to pass well through a sieve. All ways can lead to a proper sorting process—to get rid of all chaff or unwanted materials. A sieve is quick for this purpose. It works well with dry and wet clay.

Clay that has passed through a sieve must be mixed well with some specified amounts of grog. The purpose of grog is to decrease clay plasticity and to increase its structural strength. Grog can be locally acquired by sieving smashed fired bricks or unglazed pottery (terra cotta).

However, too much use of grog can diminish the strength of a fired sculpture.

Extremely wet clay (slip) can be drained to dry by throwing or spreading it randomly—on a clean flat metal surface such as an iron sheet. Then put it under sun.

When clay reaches the *ready stage* to be worked for a planned task remove it from a drying surface and pack it in a cool, clean and dry plastic container or polythene bag to mature. By maturing clay will be at a regarded stage of plasticity—ready to be used at any opportune time.

Apart from that, ready and well prepared clay can further go through another process known as wedging along with kneading. When it reaches a befitting stage of working Gardner (2006, 22) explains, "Kneading or wedging means working the clay with the hands until it becomes the same consistency throughout."

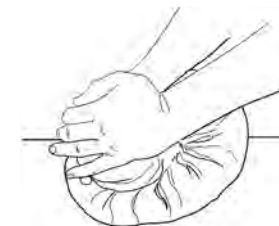
Undoubtedly, ready clay should be adequately moist; it can be checked by pinching and squeezing—clay between fingers and a thumb with one hand. If clay sticks or remains on the fingers then it is not yet ready for proper use. Wet clay lessens working efficiency. Where necessary, at the appropriate stages of *wedging* and *kneading* (clay) one may make consultations from a skilled person dealing with clay. "There are many ways to wedge clay and all styles take some practice to master" (Müller 2007, 51). That is to say, almost always, actions differ and so does working environments used by clay artists.

Müller (2007, 51) is more enlightening: "Wedging clay should not require too much effort, but it does take some practice to master." At all times, clay learners must be encouraged to understand the process and actions of clay.

To wind up our clay preparation processes, we need to make sense of Potters (1912) remarks, "working with clay to make a sculpture does not have distinctive rules since sculptors develop individual senses of quality and ability through continuous work and practice with the various materials." As a creative sculpture artist, train yourself to handle clay through experiments.

*Hands
wedging clay.*

*A necessary
stage of
preparing clay.*



Maquette

A maquette is a translation of a sketch. Actually, it is the sketch model of a sculpture artwork.

A maquette can be produced from materials within easy reach of the sculptors' surroundings. For example *clay, papers, sticks, plant fibers, soap, stones, a sponge, wires, saw dust and a pop-corn* (is also a source of inspiration).

The advantage of using a maquette to produce a sculpture is that; it gives a sculptor freedom of exploration with various obtainable materials using a considerable amount of ideas. Ashwin (1982, 212) adds, "preparatory studies for a sculpture tend to take form easily by using small" models of "clay or wax, ... they are easy to view by rotation from many positions in round form." In other words, it is easier to visualise a maquette on every side than using drawings for the time of executing a sculpture artwork.

Certainly, some sculpture experts recommend that, before starting to work on a planned or provided task. It is feasible to produce a maquette from an actual material in which the final artwork shall be created. For example, if you plan to make the final design of a sculpture with cement, try to make a maquette with the same material. Under normal circumstances, there is no official size a maquette should be.

Nonetheless, in various school situations "sculpture over 76cm in any dimension cannot be accepted." This is a rule stated by the *Uganda Advanced Certificate of Education, Regulations and Syllabuses, 2009 – 2012* (Uganda National Examinations Board, 2008, 226). That being so, avoid making very big maquettes, which go further away in height above 30cm—below is substantially reasonable and appropriate.

An armature

In the words of Hale (1994, 156), "The inner armature structure should be well engineered so that there is a core of solidity and support to the whole sculpture." Certainly, the armature is an inner framework on which a sculpture is shaped to support the working material for example clay, wood, bricks, fibreglass, papier-mâché, plastics, mortar, grass, fodder or straw and any other available material for making a sculpture artwork. Almost always, the armature operates as a skeleton.

As a consequence, some sculptors use materials like sticks, a mesh, metal, "strapping wire, aluminium armature wire, thin steel or brass rods and anything else that can curve, bend, hold its shape and be joined to other wires and to the base" (Peck 2007, 89) to work as the supporting framework.

Almost always, the armatures of a sculpture assist to obtain a better shape by using a wire mesh and tie wires although the main purpose is to enforce the shape on the (iron bars) material. It also helps to reduce excess weight and extravagant use of the expensive scarce materials. Apart from that, other sculptors use only the armature to thoroughly make complete or finished sculptures. It is important for learners to be properly guided and be given enough assistance at the critical stages of building an armature.

Sculpture from wood

Artworks of such a kind are also known as 'wooden sculpture' because of the material in which they are extracted.

Wood is among the frequently used material to make sculpture by the majority of African sculpture artists. Currently, very many artists with access to wood have used it to make outstanding sculpture artworks.

Mujjuzi (2009, 2, 4) reminds us, "It is only wood as a component part of a plant material, which has been explored for sculptural practices." Probably because wood is strong, easy to carve without using great effort and it is highly appreciated.

Sculptors who make artworks out of wood use mature and well-grown tree logs. Well kept, to dry before turning them into sculpture artworks. Using *green wood* to make a sculpture is a practice considered as working with recently cut wood.

Rich (1988, 305) asserts, "The use of a 'green wood' may result in irreparable damage to a finished carving if a wood is not adequately seasoned." That is to say, by seasoning a wood is taken through various stages of drying. Seasoning is crucial for making a sculpture stay longer in shape and the final artwork will be in a better position to withstand potential wood attacking insects as well as resisting bad weather.

Keep the wood up right (straight/vertical) in a sheltered place and it must be well supported—away from the ground for air to circulate into the wood pores properly. In general, uneven drying may result into cracks on the surface of a finished wooden sculpture. Dried or seasoned wood has less potential of cracking.

By default, if a wood (log) starts to crack—from its centre. Find a hand drill and make a hole in the centre (of the log). A drill uses an auger as a spiral bit to make holes.

Then, mix sawdust or wood husks with wood glue and then, fill the mix into the cracks. Sawdust or wood shavings can be used to fill up the cracks on a wood.

On the other hand, wood has two levels of quality known as *hardwood* and *soft wood*. These types are also categorised as deciduous for hard wood and *coniferous* for soft wood.

Here is a table display showing categories of wood:

Coniferous wood	Is composed of <i>cedars, cypress, fir, hemlock, juniper, larch, pine, sequoia, spruce</i> and <i>yew</i> .
Deciduous wood	Consists of <i>ash, beech, elm, eucalyptus, hickory, lime, mahogany, maple, oak, plane, teak, satin wood, sycamore</i> and <i>walnut</i> .

Generally, hardwood is more difficult to carve well into a sculpture artwork, irrespective of its essential features like fine forms and high polishes. Yet again, it is good at withstanding wear, pressure or damage during and after carving.

Finished wooden sculpture artworks can be well preserved by polishing on their surfaces with hot wax, or oil. Peck (2007, 159) suggests, “Kiwi shoe paste wax”—it has got choices of tones necessary for finishing a wood base. Ultimately, there is no advice on which type of wood a sculptor can favourably use to produce a successful work of art. Practice and skill guides a sculptor to finding suitable wood for making a sculpture.

Stone sculpture

Stone is an abundant material just like wood. It can be obtained easily from the environment around us and it exists in very many types and sizes. Sometimes stone is used for the time of constructing a sculpture artwork.

In a different way it can be used to make sculpture artworks by carving. For example marble. In some parts of Africa steatite/soap-rock (*soapstone*) is used to make functional sculptures. It is commonly used by a Kisii tribe found on the highlands of Nyanza, in western Kenya. Rich (1998, 512) explains that “steatite is easily cut or carved with a knife and it is fairly permanent for indoor if precautions are taken to prevent abrasion.”

Nonetheless, carving stone comes about with painstaking labour and so does the tools needed. They must be strong to endure with the slow progress.

As a beginner who might be interested in stone carving, start with some few available tools such as:

- A metallic *mallet or hammer*
- A *riffler*
- *Chisels*. Where there is scarcity, shape a
- *6 inch nail* to make an improvised type of tool needed to carve a stone.

More tools will keep adding to your limited list accordingly, depending on the tasks to be undertaken. For instance, *dust masks, hearing protectors and gloves*. These are some of the basic tools, which may be needed for a secured working process.

Apart from that, in the course of carving stone; its surface should never be marked or demarcated by using ink pens since most ink types are permanent. A piece of charcoal or chalk is good for that purpose.

Always remember to use a sand bag (to rest the stone) in the course of carving. A sand bag reduces extra noise and friction onto a stone surface. It also protects and keeps a sculpture artwork safe from down grading. But since stone is heavy, it is certainly good for a sculptor to start carving it from its originating source.

As we mentioned earlier on there are very many kinds of stone used for executing sculpture artworks. For instance marble and soap stone, other types include *limestone or sedimentary (stratified) igneous* and *metamorphic* rocks.

Fundamentally, finishing a sedimentary type of stone is less easy—particularly limestone.

Examples of metal tools used for carving stone



Rich(1998, 250) offers a reasonable explanation: “A study of Michelangelo's nearly finished stone carvings show that he worked in a manner similar to Greeks and did not make much use of the flat chisel, proceeding from the use of the claw chisel to finishing stone abrasives.” Here we see that stone especially Marble was a common material for sculptors like Michelangelo, which was very hard for them to finish it.

Casting clay

As Rich (1988, 39) reminds us, “There are two major methods of casting with earthly clay; 1. Pressing or squeezing clay into moulds, or hand forming against a mould. 2. Slip casting. Earth-clay or terra cotta can be employed as a positive casting material and cast it in sectional plaster moulds when more than one copy of terra cotta is desired.” Clearly, then, casting necessitates a mould—made up of two parts or more—known as a *positive* and a *negative*. Where by, the part with a hollow cavity is its negative and the positive part is the place where a desired sculpture forms by using hot molten (metal, glass) or wet slip made out of clay.

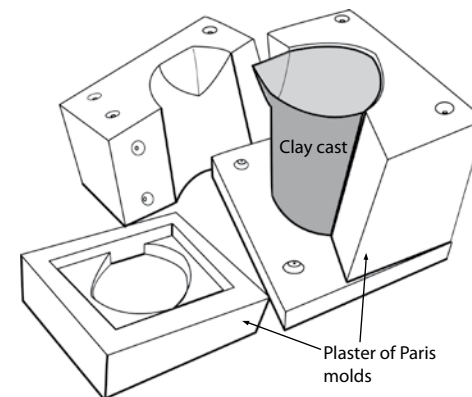
Types of moulds

By simple explanation a mould is a reverse form of a cast. It uses a hollow space to reproduce a resembling shape of the original using liquefied substances that will later harden to form a required shape. The solid materials of clay slip or molten cools from inside a mould, it turns hard by setting to form an assumed shape.

Here are some types of moulds:

Slip mould	In Segal's (1991, 28) <i>Ceramic Fabrication</i> , “slip casting is a technique which involves pouring a slip into a porous mould often made from plaster of Paris (calcium sulphate hemihydrate), it absorbs liquids and deposits a solid material at the mould walls.” It should be tied well to avoid falling apart. At certain intervals the mould containing slip is shaken carefully for a slip membrane (inside) to fortify well onto a mould surface. Then, residual slip can be poured out as the shaped artwork drains to form a precise shape with adequate thickness.
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Gelatine mould (glue mould)	This type of mould is not very strong, but it is good for reproducing small and detailed sculpture artworks. Creative sculptors who make artworks with a gelatine moulds use <i>glue, water and glycerine</i> . Rich (1988, 101) explains, “a gelatine mould is occasionally referred to as a glue mould, but glue is actually an impure and cheaper form of a gelatine and does not possess as much elasticity.”
Piece mould	As Rich (1988, 265) has remarked, “a piece mould is a negative mould ... made with several piece sections. The number of sections to be made are determined by under cuts of the artwork meant to be cast,” and its sections are shaped in such a way that; they are easy to remove “without fracturing” the positive cast. This type of mould is constructed in separate halves and where necessary a mould created can again be reassembled for another cast reproduction.
Press mould	On a press mould, the action and process is done by pressing a prototype of the exact sculpture artwork into a wet lump of clay or a similar material—by applying pressure on it. The generated negative shape or space is later on used to cast another exact sculpture artwork. A press mould can be used to make a large number of individual press-cast pieces. Peterson et al. (2003, 97) remark, “laying a slab of clay over a plaster form or pressing clay between a plaster moulds is also possible.” Certainly, a press mould is typically used for casting low reliefs.



A slip-cast. Liquid clay was poured into a Plaster of Paris mould. It absorbs water from the clay slip, leaving a layer of clay against the surface of the mould.

Waste mould	Rich (1988, 512) says, a waste mould “is a negative mould that has to be broken up and destroyed or ‘wasted’ in order to remove or release the positive cast contained within its interior ... The advantage of using a waste mould is that it eliminates the fine lines ... that result when a piece mould is used.” Also, “only one positive can be secured.” Clearly, then, the material used during casting has got to be hard or strong to avoid a collapse.
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As a learner dealing with assignments of art related with casting, you will realise that mould making and casting is not for sculpture tasks alone, it can be used in very many other art fields like pottery, jewellery making and other multimedia crafts to forge and cast. In that manner, moulds are made for very many purposes in different ways.

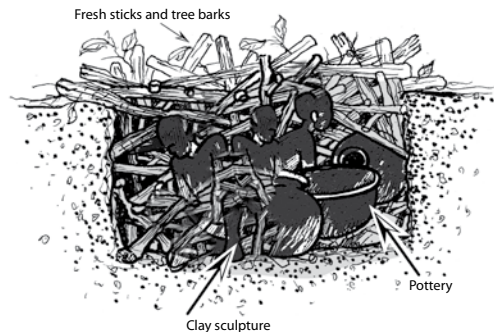
Kilns

The types of kilns used for firing clay are many and they are differentiated by the ways in which they function. All kilns burn, bake, or dry sculpture as well as pottery. Digolo et al (1988, 117) allege, “... some are fired by gas, others by electricity, wood or oil.”

Here is a table list of notable kiln types:

Wood kiln	Coke kiln	Electric kiln
Saw dust	Bon fire	Open fire kiln
Coal kiln	Oil kiln	Gas kiln

As indicated in the previous paragraphs, the purposes of kilns are almost identical wherever you go, even though pottery artists and sculptors have individual ways of using each existing types.



This is an example of a bonfire kiln, showing unfired clay sculpture and pottery ready for firing in a narrow ditch—dug in the ground.

The sizes of kilns and how each type uses energy are to a large extent different. Thereby, an electric kiln is known to be the cleanest but it is very expensive to use. Electric kilns are well liked because sculptors or pottery artists—using such a kiln do not need constant attention. Even though, firing clay ware requires a very close attention—watching to control the process of firing.

In this set of circumstance, our aim shall be centred on equipping learners with knowledge of firing clay using very simple methods and at a low cost.

As an example let us make a brief review on how to fire pottery with a *bonfire kiln*. If such a kiln is carefully used, it can burn clay artworks at higher temperatures in the shortest time possible. It can be lit well by using fuels such as *cow dung, saw dust, brushwood, straw or reeds*—spread it well inside a shallow ditch dug on sloping open ground. Then, carefully place clay artworks on the well laid 'fuels' inside the ditch. And then, add more fuels on top. Other kinds of fuels may include sticks of fire wood, recently harvested fresh wood and tree barks.

Start the fire, a bonfire kiln can reach high temperatures but it cannot effectively maintain them. That is to say, watch as fuels burn and where possible add more or keep on enforcing the fuels in sufficient amounts when needed for fire to keep burning.

After burning, wait until when terra cotta (unglazed, brownish-red earthenware) has cooled down—back at a fairly low temperature and then remove them from the bonfire kiln. It is also necessary to clean off some ashes from them.

Then, take the fired sculpture artworks for display.

Welding sculpture

Welding is a method of joining metal pieces or parts together to produce a sculpture artwork.

The process of working is done by using electricity (this is expensive), or by using bottled portable oxyacetylene welding gases (it is cheap) carrying *oxygen* and *acetylene*. As a matter of safety, during welding wear dark eyeglasses to protect eyes from extreme bright light caused by welding fires. Dark eye-glasses and other safety gadgets are as well necessary even to those watching a welding process.

“Welding equipment is largely used for joining and cutting metal.” Two pieces of welded metal—join by heating. The metal melts and fuses to connect thus forming a single metallic piece. The kind of metal most widely used for welded sculpture is mild steel.

“In a brazed joint, the parent metals are not actually fused together but are joined by an alloy that melts at a lower temperature than the parent metals. Brazing is particularly useful for making joints between different kinds of metal, which cannot be done by welding and for joining non-ferrous metals.” (Encyclopaedia Britannica 1991, 51)
Forging is the direct shaping of metal by bending, hammering and cutting.” (Rogers, 2011)

During welding, keep away objects and substances that may be flammable. Welding can cause serious fires and burns. It can also lead to serious electrical shocks and other hazards. Additionally, welding produces poisonous fumes. If you are a beginner of soldering and welding in sculpture and you wish to use this method to execute a work of art, start with getting appropriate information from an instructor, teacher or supplier. Combine every detail and advice to distinctly avoid mistakes. Welding and soldering can be learnt by self-obsession.

Finishing a sculpture

Without doubt sculpture artworks can be created from found objects, natural and artificial materials carefully picked from our surrounding environment. Then, surely finishing sculpture artworks vary accordingly. For instance, some sculpture surfaces can be finished by *polishing, painting, chiselling, burning and sanding*. Rich (1992, 31) suggests, “... in using sandpaper for finishing purposes, always begin by using a coarser paper and follow with the finer papers.” As you work to finish a sculpture artwork. Be mindful of the final place, where the artwork shall be displayed. For the reason that, some sculpture materials are not good for outdoor display.

Nevertheless, not a single sculpture necessitates decorative paint as a protective coating for finishing its surface. Unless if there is a cause with a reasonable explanation. For instance, iron oxide on metal can have a beneficial effect on preventing it from rusting.

On the other hand, mounting a finished sculpture compels a creative sculptor to finding a support or a base on which the artwork shall be displayed. A *base* used on a sculpture is commonly known as a pedestal. It provides bottom support to a finished artwork of a sculpture for the time of displaying it in an exhibition.

Exercise

1. Choose **one** theme from a list provided and produce a sculpture artwork:

- Consequences of corruption
- Nature provides abundantly
- Drunkardness
- Causes of hunger
- War children
- A health mother means good child mortality.

The executed sculpture must be creatively depicted *in the round*. Use found objects to carry out the task.

2. Some sculpture artists like to carve hands, others like feet. Choose three parts from your body with the exception of those mentioned and make a well composed relief sculpture using clay. The composition **MUST** be simple and expressive. You can go further and make a cast out of it.
3. The women in your home area have suffered rape as a result of poor Human Rights for Women. Hope after Rape (HAR) a new organisation has come to save them from that distressing situation by raising awareness about rape and how to avoid it. Create a theme and produce a life size sculpture in wood to be displayed at the area community headquarters.
4. You are considered as a successful professional artist who is doing well in nearly all fields of art and now you want to venture in sculpture as a result of making a good analysis of the body especially 'the nude'. Use cement and make a sculpture artwork that will give you a good blaze of public attention.

CHAPTER TWELVE

Pottery

Pottery is the art of making earthenware from clay.

In the words of Beittel (1989, 133), "What is Pottery? Pottery is the humblest of man's arts ..."

Clearly, then, pottery is an acquired skill of making earthenware like jars, dishes, plate, cups, pots, vessel or bowl as well as adornments or decorations.

Pottery making necessitates working with hands and other equipment, by using techniques such as casting, moulding, throwing on a wheel—and then, when a pottery looses all its moisture or dries up, it is taken for firing inside a kiln. Gray (1975, 622) says, "... pottery breaks down into several provisional traditions of which the best known and the most wide spread extends from the western shores of Lake Kivu, across Burundi and Rwanda north-western Tanzania, southern Uganda and western Kenya." This is probably because; in such areas soils are full of clay a raw material necessary for making pottery.

Up to the present time, earthen wares especially pots of different sizes can still be found in many Ugandan homes of various tribal communities. Pots vary in sizes and shapes considering that they are made for very many purposes like reserving clean water for drinking. On the other hand, many tribal people use clay pots to serve local dishes and for drinking local brew (*malwa*) made out of fried millet.

Otiso (2006, 56) reminds us that "the Gisu community of mountain Elgon (*Masaba*) region are one of the largest and most celebrated source of pots in the country. And the community uses local materials to produce pots for sale locally and internationally." This tells us that in Uganda, the practice and art of producing pottery is widespread. There are so many tribal people who have benefited from pottery making. For example the Lou, Ganda and Madi. They all make useful decorative pottery for sale and for various home uses.

Undoubtedly, long-established pottery makers are classified in a manner conforming to some—adhering traditions of people.

Lugira (1970, 81) offers a rational explanation: "Among the Baganda, potters were a distinct class of work men. By using a coil method, they made decorated artistic earthenware from red and black soils, as well as kaolin into pots.

They also marked patterns on the earthenware surface using roulette, a carved wood, in addition to glazing." From this we can understand that as creative learners and beginners of pottery, we can make very many useful artworks with simple tools and distinct soil types in all kinds; found in places near to our surrounding environments.

Properties of clay

As *The Department of Earth Sciences* has so well stated: "Properties of clay minerals include plasticity, shrinkage under firing and air drying, fineness of grain, colour after firing, hardness, cohesion and capacity of the surface to take decoration. On the basis of such qualities, clays are variously divided into classes or groups."

Distinctly, then, properties of clay are fundamental for our study analysis about pottery owing to the fact that they serve to point out the different qualities and characteristics of clay. For instance, clay can be moulded when wet, shrink when exposed to fire or air-drying, it is made up of fine grains, it becomes hard and it changes colour after firing. But all this depends on clay make ups, mineral composition and the size of particles. Others may be distribution and presence of organic materials in clay.

Let us make a brief analysis about properties of clay:

- a. **Vitrification** of clay is sometimes referred to as glass formation—a stage at which clay hardens after exposing it to heat by firing. Pottery artworks turn solid, with added strength and resistance capable of carrying or holding fluids. Giorgini (2001, 25) notes, "a clay's maximum firing temperature is known as its point of vitrification. When the clay is fired at higher temperatures, it will deform and eventually melt down to become a hardened puddle ..." Here we see that vitrification is an attribute of clay items like tiles, plates and cups, made for household use.

b. Porosity of clay is determined by conditions and the state at which moisture escapes in the course of drying, or at the early stages of burning the clay artwork. "Clay must be able to absorb water in air and other fluids. It must be able to 'breathe.' This quality is necessary in order that the clay dry without cracking before firing." (Digolo et. al 1990, 117) Distinctly, then, on greenware the conditions and level of drying lean on the amount of water absorbed and the provisions in which it can escape. If the surface pores are large, water will escape rapidly.

c. Plasticity of clay predominantly refers to the quality of easy moulding or shaping without tearing to turn or form a useful pottery and other artworks. Muller (2007) notes, "Clay's plasticity is often contingent on its moisture content. A good way to check for plasticity in clay is to roll a coil in your hand and bend it." If it shows cracks and/or "falls apart then it is not plastic." Nonetheless, plasticity is different from elasticity—in which clay can revert back to its muddy wetness.

d. Shrinkage of clay happens in two stages; when pottery is drying and when it is being fired—depending on the amount of water it contains. Nevertheless, at every stage, clay contains a certain quantity of water, which allows particles to combine or get together to form one hard substance. Peterson et al. (2003, 24) say, "... clay does not dry completely at room temperature. Additional evaporation and shrinkage take place during firing." That is to say, when pottery starts to dry, water evaporates through small pores or spaces. Hence causing shrinkage.

Materials and tools used in pottery

In Peterson et al.'s (2002, 26) *Tools for Working*; "Potters can use many tools, or just a few, or none. Most clay artists make collections all their lives of various tools—or objects that will function as tools—from the hardware store, from their attics and garages."

Thereby, as creative artists conducting school tasks we can as well make pottery artworks by using simple tools or object from the surroundings of our school environment.

Here is a checklist of some tools, materials and equipment that may be used to make functional pottery artworks:

Basic clay tools and their use	
Brushes	Are used for cleaning unwanted clay off the surface of a pottery ware during decoration. Brushes can also be locally acquired by tying well laid small neat sisal bundles, on a small piece of stick.
Rolling pin	It has got a cylindrical shape. Some of its basic tasks include making slabs as well as decorating them. A simple rolling pin can be locally made from a (cylindrical) smoothed straight stick or a sizable (portable) piece of wood.
Sponge	It is used for washing, cleaning and finishing; after throwing or shaping a clay artwork. Yet, even when a workspace or studio is saturated with water, a sponge can be used to absorb some of the dispersed liquids.
Wire clay cutter	This is a wire tool used for slicing clay during wedging and on a wheel after throwing. It should be kept clean or be wiped every after use. By the way, a smaller—strong string can be put to use for this purpose in case there is no wire for this particular task.
Throwing ribs	These are mainly shaped from hardwood and plastics, in different shapes for smoothing, shaping and finishing a pottery artwork throughout throwing on a wheel. But they can also be used on hand built pottery. Ribs can be locally made or shaped from thrown away pieces of wood.
Sieve	This is mainly used to separate junk from dry or wet clay. Dry clay can be sieved after smashing it and wet clay be sieved after turning it into a liquid consistency. Yet again, by using a net or a mesh fabric of light weight a sieve can be effectively created. Other potters use wire mesh sieves.
Material, equipment and their basic tasks	
Clay	It is one of the most essential materials of pottery. It is a type of soil with exceptional fine grains. It can be dried and baked. Clay can also be recycled and moulded again when wet. Sometimes red soil from ant-hills is used for the same purposes. It is a good replacement for beginners, where there is scarcity.

Clay storage container	A clean plastic bucket or a strong polythene bag. All these and more can be used to store clay safely. Shivers (2010, 144) suggests, "a wet cloth can be used to cover the stored clay to retard the loss of moisture. Water can be added to moist clay if it starts to dry. Unused clay and finished clay artwork can be reclaimed by wrapping it in a damp cloth ... clay should be stored in a cool, dry place." Nonetheless, you can dig a ditch or trough in the ground to store prepared clay for future use.
Pottery wheel	There are very many types of pottery wheels and they are made in different sizes. A creative potter can make a home-made pottery wheel by using a supporting table frame fitted with a wooden wheel-head to be used as a turntable device. Also below, it should be fitted with a flywheel for kicking. Rhodes (2004, 42) informs us that "if a fly wheel is too heavy, it will be hard to get it into motion by kicking, but if it is too light there will be insufficient momentum." In general, kick wheels do not require electricity to function.

We can conclude with Peterson et al.'s (2002, 36) observation about "tools for working" that "water is essential in the hand building process, but should be used very sparingly." This tells us that, well as water is among the fundamental materials of pottery making—excessive use of water might cause cracks and breakage of your pottery artwork.

Clay classifications

The physical and chemical properties of individual types of clay are dependent on its make up or structure. In Patwardham's (2005) clay classifications, "residual clay is found in the same place as the rock from which it is formed ... It is purer but less plastic. And, Sedimentary clay is from silts, which are washed down or blown from higher regions ... it is more plastic because it contains organic materials."

Undoubtedly, then, **residual** or *primary* clays are found within the same general location as the parent rock from which they originated. And through processes of surface weathering, primary clays develop from various types of decomposed parent rocks.

Consequently, residual clay is made up of larger particles which make it less plastic than sedimentary clay.

Sedimentary or *secondary* clay develops from transported soils. Wind and mainly water or any other natural forces of weather help to induce the process. Sedimentary clay is composed of a *greater mix of other organic decaying materials* from the earth's surface. Thereby, it is more plastic than primary clay.

Mining clay

Clay can be found by sampling holes where earth or soil has been removed. Such places may include *swamps, gardens, post caves or underground holes, dug compounds or backyards, basements, road cuts, a well, graves and ditches* et cetera. There is no special technique required by pottery artists to dig up or mine clay from any available excavation source.

The most important thing is to identify a clay site. The rest can be carried out by using our gardening skills, which may only require using basic tools like *a hoe, shovel or spade* and a *vessel or container* for collecting mined clay a proper conveyance or transportation.

Digging clay is a tedious process, so go with a friend. Or, it can be done in a group to share roles accordingly.

As a clay artist, it is important to visit the clay source that you will be able to acquire the adequate knowledge about qualities and characteristics of clay. Also, you will be acquainted with the organic ways clay transpires in the natural world.

Ultimately, digging your own clay will embrace advantages and disadvantages to you as a creative pottery artist. Here is our quick analysis:

Disadvantages of digging your own clay:

- Preparing clay *necessitates countless trials* especially if a pottery artist is uncertain of its properties.
- Working with clay will obviously soil or get a potter's wear and body *messy*.
- And in many cases, *clay sites are far* from sculpture studios. As a consequence, a pottery artist needs to plan—have enough time to work and complete each comprehensive clay process.

- A pottery artist needs *enough energy and strength* to dig and mix clay. It is heavy work.
- Since clay is used at an appropriate stage of easy shaping or moulding, *the process of preparation is time consuming.*

Advantages

- As a clay artist, it is not expensive to dig your own clay. Yet, it is up to you to form opinions about how to expend or make use of the available mined clay.
- If a pottery artist dug his/her clay, it is easy to apportion clay for particular tasks without restraints.
- Digging clay is a plus to a pottery artist to make *creative decisions* and operations of supply and demand.
- And certainly, it is very remarkable for a pottery artist to have ready clay mined and kept. Your instructors or teachers will consider you *able* and *reliable*.
- Finally, mining clay is substantial for a pottery artist—to have an outdoor ten-finger and body exercise.

Some pottery and other clay learners detest or despise clay, but they get to like it after realising its lack of sophistication and practical purposes. “Every pottery” artist “will have to evaluate this factor on an individual basis. Mixing your own clay offers the intangible benefit of allowing you to be completely involved in the pottery endeavour.” (Zamek 1999, 71)

Preparing clay for pottery

The various ways of preparing clay for use in making pottery artworks are nearly the same as those used for producing sculpture clay artworks. Michael et al (2007, 140) note, “contemporary ceramic artists work with clay to produce sculptures and studio potters make a wide range of hand-built and wheel thrown utilitarian items. Taking clay from the earth, shaping it, decorating it and firing it; are some of the remarkable activities, which come from very old and basic professions.” Preparing clay involves a lot of undesirable and vigorous actions that may take long for learners to accept or regard as being of little worth.

That is to say, if a clay source is at a swamp, then digging clay by themselves shall be their starting point or stage. However, this analysis does not present an established order for the activities necessary during the process of preparing clay for pottery.

Let us randomly go through some notable stages of preparing clay:

- Crushing** is done by smashing dry clay into reduced pieces—very nearly to powder form after allowing it to dry. This is the stage at which a creative pottery artist can be able to make a quicker preparation process since clay will already be reduced to smaller pieces. Crushed clay is easy to soak, sieve or sift.
- Sieving clay** can be done after converting it into a creamy watery mixture. Sometimes, dry ground clay is put into a sieve; also to remove lumps or large particles when it is in a powdery state. Sieving clay is a stage of preparation where large grains of unwanted particles are separated from a loose matter, guarded from impurities by gathering sieved clay into a container below a sieve.
- Mixing clay** can be done by using hands or with some other tools such as a *blunger*. Just like digging clay; mixing your own clay is necessary for the reason that you will get a chance to learn how to mix clay ingredients. For example, *grog*, a crushed material from fired bricks—used for reducing cracking and shrinkage of a readymade pottery artwork. Sometimes mixing clay involves procedures and actions of *kneading* and *wedging*.
- Draining clay** happens when wet clay is daubed to dry or loose water. By local methods, a pottery artist can haphazardly smudge or smear wet clay on a desiccating (porous adsorbent) surface to take water or moisture out; sometimes by evaporation. As an alternative, draining clay can also be done by immersing pieces of plaster of Paris into a container carrying the liquefied clay. Dry plaster of Paris drains waters out and thus turns liquid clay into a workable solid lump of clay.

e. **Slaking** clay is done by putting dry unfired clay in a container carrying water to dissolve and turn into a semi liquid mixture or slip. It is from here that a potter artist will turn the loosened clay back into a slightly wet compact mass for use in the course of throwing or hand building. Sometimes slaked clay is used for making surface coating and decorations on pottery, when it is at a creamy state or consistency also known as slip.

f. **Kneading** is a method of preparing clay with hands. It is carefully done by pressing, folding, stretching messaging and squeezing clay to form a uniform mixture before throwing or taking it for any other clay actions. Kneading also allows clay to attain an even or uniform wetness and dryness. After kneading, clay will turn it into a plastic mass with a uniform consistency, texture and plasticity.

g. **Wedging clay** removes unwanted air pockets and it helps clay to integrate its particles. The actions and process of wedging can be done on a clean surface of a table, bench and on the floor. Where by, clay can be hit with a stick or it can be wedged by slapping it down on a hard surface. Then, cut it to check for remaining air pockets. Peterson et al. (2003, 31) assert, "Techniques of wedging vary from bread-kneading methods ... to cutting on a wire and slapping the pieces together." Nevertheless, wedging clay requires working with small quantities of clay for easy lifting—up high above the head then down to make a pound in order to remove air bubbles.

In this final analysis we acknowledge that wedging and kneading can act together. Rhode (2004, 7) affirms, "Cutting and wedging are usually followed by kneading or spiral wedging. In kneading, the clay is again formed into a loaf, which is then manipulated by hands and especially the heels of the hands to make it roll into itself in a form like a jelly roll ... The kneaded rolls tends to get longer and longer and at a certain point it is upended and the process repeated ... The method of kneading does not involve picking the clay up off the table ... it requires relatively little effort." Ultimately, ready clay has either got to be properly kneaded or wedged for proper workable consistencies.

Also for the duration of these processes unwanted impurities can be removed once a potter discovers them.

Proper **Storage** will prevent clay from getting contaminated, unforeseen drying and safe from thieves. Hence, a storage place must be able to store clay for a very long time. It should be kept clean and dry. For example, a sizeable plastic bag or a lidded plastic bucket.

According to Webbo (1996, 60), "select a position in a cool place such as the banana plantation or under a tree shade ... the earth is mostly cool there, hence it can keep clay soft and moist." During storage, check the conditions of clay day-to-day to make sure that it still contains the necessary moisture content. Other than that to prevent loss of moisture, "make a trough in the ground big enough to hold the amount of clay at hand. Line the walls as well as the floor of the trough with leaves. For example banana leaves. Arrange the clay balls properly in the trough. Cover the clay balls with a thick layer of leaves then, replace earth and leave it until when you need to use the clay." (Webbo 1996, 60) Remember, preparing clay is tedious.

Techniques of hand building

As Müller (2007, 58) has asserted, "Hand building is a great way to get to know the properties of clay ... you will quickly become familiar with degrees of plasticity and feel the leather-hand clay ... Some people prefer working with hand building techniques because they are so many possibilities ... In fact, many ceramic artists work with hand building or a combination of wheel and hand building."

As a consequence, learners should be given a chance to experiment with each of the available hand building techniques. For examples *thumb digging*, *coiling*, *slab*, *ball/pallets* and *scoop building*. In spite of that, it takes a while for a creative artist to perfect a single specified technique.

Here is a review of how techniques of hand building can be used to make pottery artworks:

1. **Pinch building** is a very old method; it is carried out with actions of fingers, a thumb and hands inserted into solid clay to create a hollow shape. Rogers (1986, 9) says, "Pinch building is just to hold a lump of clay in one hand and then ... push a hole into it with the fingers or thumb of the other hand to form a hollow container, a

bowl, a cup. In size and shape it will correspond to ...” That is to say, pinching clay—moulding and shaping it between fingers and thumb is a natural human response. As a pottery learner start with a pinch building technique that you will be able to discover other ways of creating useful clay artworks.

- 2. Coil building** is a method, which requires gentle ways of handling clay by rolling it with both hands forward and backwards between bases of your palm, towards the fingers. At the appropriate stage of building a pottery artwork, pay attention to rolled parts of an emerging coil.

If the parts of clay coils turn into a full roll, shift then carefully to the other ends of your palm and then continue to roll. Avoid half rolls since the expected coil might not happen. In another way, clay coils can be rolled on a flat, smooth surface of a table. Although, such coils tend to appear dry and cracked.

In general, using coils to build a pottery artwork starts with a sketch. Follow some of the essential requirements of a provided task and then roll suitable coils. To join each obtained coil; make scores or scratches on a single side of a wet clay coil and add slip in the scratched areas. Slip works as an adhesive. Hence scoring means to create scratches or cut markings on a coil surface. Coils have a vast creative potential, owing to the fact that they can build, as well as decorate. Müller (2007, 67) is more enlightening: “Many primitive cultures ... still use coiling to build large storage jars or traditional and ceremonial pottery forms.” Undoubtedly, then, coiling clay is a very easy way of



Hands, rolling clay to form coils



Coiled pottery

using hands to create pottery artworks. To this extent, creative pottery artists must be encouraged to produce various useful artworks with this hand building technique.

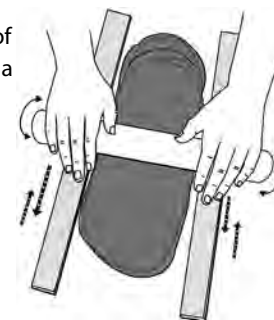
- 3. Slab building** is a technique used by nearly all pottery artists to build clay walls. Clay slabs are easy to make for they allow quick pottery constructions. The slab forms a wall structure using clay to support a planned shape. During slab building, a pottery artist lays flat a clean polythene bag—on a table support and by using a thumb, wet clay is put in a precise position to be proportionally distributed everywhere on a polythene bag up to a measurement of thickness and height not exceeding 1cm (height-to-thickness). The thickness of a clay slab can be regulated by using two straight flat-shaped pieces of wood. These should have the same ratio of height and thickness expected for a slab.

Another polythene bag can be spread on top of the attained layer of an advancing clay slab. Pick a rolling pin and then run it over the attained layer of clay; up and down. The method of rolling to make a slab is similar to the ways “chapati” is levelled out during cooking.

After acquiring a reasonable thickness of the desired clay slab take a sharp tool like a knife and precisely cut out shapes that you need. Be mindful of the needs mentioned by the task at hand.

Making a clay slab

Materials: A rolling pin, with supports of narrow straight pieces of wood between wet clay



Techniques of decorating greenware

In the words of Hinshaw (2008, 90), “Greenware is a clay work that has not been bisque fired.” Thereby, clay can be decorated after firing it and even before when it is still at a greenware stage. Pottery artists and mainly creative artists decorate clay according to some obtainable sources of inspiration, function, culture and for some established society practices. Nevertheless, all these involve working with different tools and materials.

According to Lugira (1970, 81), “a common method used on unfired clay was to mark pottery surfaces with patterns using a roulette.” Here we see that decorating pottery surfaces can be done with simple tools.

As an example, a roulette made by twisting cords or knots from small strings of a papyrus, or a well-shaped piece of stick. All these can be shaped accordingly to decorate clay artworks.

Here is a table explaining some basic techniques of decorating greenware:

Embossing	The surface decorations of an embossed design display a (bas or low) relief. Just like the way images appear on the surface of a currency coin. Embossing can be done by carving or moulding.
Burnishing	It makes greenware appear smooth "by polishing of leather-hard clay with a smooth tool." (Müller 2007, 186) This technique can produce high quality smooth surfaces by using the smooth end of a spoon, 'stone' or a glass on the pottery surface to appear like glaze.
Incising clay	Generates markings on a ceramic artwork by using a sharp tool. Michael et al. (2007, 146) allege, "incising involves scoring clay with various objects. The clay must be partly dry before incising can be done" or making necessary cuts, the incised decorations have to be smoothened with a sponge or a soft brush.
Stamping	Decorates pottery surfaces by impressing the surface with patterns. Peterson et al. (2003, 110) say, "since ancient time, pottery artists have pressed or rolled into clay objects that leave their impressions, when they are removed." Indeed, stamping imprints decorative designs only when clay is still wet.
Inlaying	Decorates clay by using two or more types of coloured clay. Pottery artists do inlaying by embedding different types of coloured clay portions to flush out on the surface of a pottery in contrasting colours. The techniques of inlaying vary; some creative artists use shells, stone and bones. Inlaying can be done after firing or before in different ways.
Slip trailing	Uses slip obtained from wet clay to decorate pottery. It can make decorative motifs into the surface of the pottery. Simple tools like a <i>cone-shaped-folded paper</i> or a <i>medical syringe</i> can be contrived for making decorative slip trails of very fine lines, dots or any other desired patterns. Sometimes slip trails are enhanced by adding coloured powder paints into slip mixes to bring on coloured slip trails.

Excising/relief carving	A pottery surface can be decorated by using a sharp stick to create carvings and deep cuts. The problem with decorating pottery by excising is that; the thickness and depths of clay walls vary. Hence during carving, have a plan in mind before you begin.
Glazing	According to Hinshaw (2008, 86, 90), "glaze is liquid glass that melts and bounds clay through the heat of the kiln." It can be used to decorate pottery by dipping, pouring or painting a glaze mix on the surface of pottery artworks. "Glazes are grouped into low-fire or high fires depending on the chemical makeup ... Low-fire glazes tend to have brighter colours; high-fire ... more tones. Low-fire glazes are most appropriate for elementary grades." Ideally, before glazing consult a skilled person for necessary assistance.

Throwing clay on a wheel

In the words of Rhodes (2004, 29), "the invention of throwing speeded up the production of pottery and made possible light, highly symmetrical" functional earthenware. In the manner now being indicated, pottery is meant to be produced in lightweight. This practicability is done by throwing "on the wheel ... to get a hollow clay shape, ready to be finished or to be combined or cut up and added to something else ... it is the fastest method only when the potter is skilful and has total command of the wheel. This accomplishment can take ten years to acquire, although some people have a natural skill that allows them to develop control faster" (Peterson et al. 2003, 67)

Apart from that, a clay throw must get to the centre of a wheel to avoid—strenuous efforts of positioning it. Wrong centering of clay may cause the wheel to run in a sluggish way.

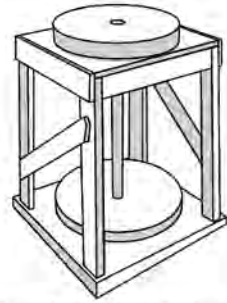
After placing clay in a proper position, start to roll the wheel and keep it running at a low speed. With hands wet, carefully start touching the wet clay using some strengths and energy of your whole body.

Carry on and then press the clay slightly as the wheel keeps rolling. The shape of an anticipated pottery design/artwork will begin to develop. Remember to look at your sketch.

Then, put the right hand down in a short straight motion.



Clay throwing; on an electric wheel



A wooden pottery (kick) wheel

Along with the left hand and add some limited pressure to retain the clay position.

As the wheel continues to run, hold and manoeuvre clay with both hands to support the evolving pottery.

Start to press clay on both sides and force it upwards to form a clay wall. This is a stage at which a pottery ware will also generate a mouth shape.

Touch the mouth carefully and then, squeeze the advancing walls up by using your thumbs, as well as the next finger.

At about this moment, increase the speed of a wheel by making more kicks to quickly obtain a size, which may be needed. Peterson (2003, 432) explains, "Potters ... prefer kick wheels to electronically driven ones, for reasons of sensitivity and empathy." Kick wheels are cheap, they have less noise and they are more durable.

Regardless of how, when a proposed pottery artwork is ready, remove it from the wheel carefully. Remember, a small knock can result into a bad fall. Thus, be care full.

Then, keep the wet pottery aside on a safe ground without covering it—for some time, to allow moisture to evaporate and to be ready for an upcoming phase such as adding decorations on its surface. When wetness subsides, wrap it up in a clean polythene bag and keep it inside a cupboard or a storage shelves.

Generally, the methods of making pottery differ. Most of the activities and processes are determined by tasks provided.

Exercise

1. Once a year the community and your school have celebrated a very important solidarity ritual. Design and produce a decorative pottery artwork for the event. Use any two hand building techniques you know. The function of the final pottery artwork should be self-evident.

2. A friend of yours has been bothered with finding a suitable gift for a newly married sister. And you know how to make pots, cups and dishes using clay. Now you have been trusted to design a well decorated gift set containing 2 medium-sized plates, 1 bowl and 1 cup for that purpose. By using a pottery wheel and one technique of decoration produce the earthenware. The final products must be fired.

3. Candles and kerosene lamps (*tadooba*) are potential fire hazards in homes and boarding schools. Design a decorative candle holder for safe burning of candles and to avoid other fire accidents. Use the slab building method to execute the task.

CHAPTER THIRTEEN

Photography

Photography is the art and practice of taking still or moving pictures using a camera.

Artists who sketch or draw and all those who make illustrations as well as painting artworks do not underestimate the importance of photographs; they all wander in related topics and themes in various indisputable ways. That is to say, photographic images taken with a camera inspire artists particularly those dealing with real life artistic themes.

Galer (2004, 8) offers a rational explanation: "There can be no guarantee that anyone will view and read an image you have created the way you would like them to. Images are full of ambiguity and uncertainty." Here we see that creative artists have to take measures of working through uncertainty and ambiguity in producing photographic artworks. Thereby, photography and art operate without exact restraints—restriction or deprivation of experimental liberty.

A creative photographer will discover a multitude of interesting ideas and themes from art—borrow them to perform skills needed to achieve the set learning outcomes listed below:

- Understanding the effects of light on images
- Understanding the influence of colours and perspective on images.
- The basic characteristics of form and mass
- Understanding how to compose in photography
- Using elements and principles of design in photography

As an extra factor about photography and art, *Caravaggio* is one of the many famous painters who used optical devices like camera obscura, lenses and curved mirrors to produce real life paintings that are nearly similar to photographs.

Look out for his artwork titled *The incredulity of Saint Thomas*. Likewise, Norman Rockwell painted the *Home coming marine and very many illustrations* by using photographs.

Seay (2010) notes, "Rockwell's reliance on photographs strongly recalls ... Caravaggio, who left behind a bunch of paintings but without a single sketch."

Certainly, it is not a surprise to discover that even today several creative artists rely on photography to make powerful artworks or drawings. Nonetheless, modern images in photography reveal varying changes. For instance, back then "... approach was not so much about information as about effect, mood and technique." Galer (2004, 89) laments.

Besides at the present time a creative photography artist has got the challenges of moving with modernity and to find ways of discovering new approaches to capturing broad based images.

In spite of that, photography keeps going with new advancements of technology—to improve methods, techniques and processes of production and control. This has also made learning relatively easy and to use advanced features of a camera.

It is fortunate that currently every single person using a mobile phone is likely to possess a digital camera in some way. He/she can capture moving or still images. The same gadget can have a recorded image edited, or printed straightaway using a short range wireless connection to the printer.

Uses of photography

In today's creative world, photography has been combined with art and other learning expeditions.

Finn (1994) says, "I have discovered more everyday about how the camera can teach me to look with a penetrating eye at everything that comes into my field of vision."

Clearly, then:

- Photographs describe or cause our eyes to draw attention to new products, events and services found in public media such as newspapers, movies, magazines, billboards et cetera.
- A photograph assists obligatory users to make formal inquiries; to discover or examine facts of unknown allegations as well as documenting past events.

- Photography can be used to depict our real-life in pictures and moving images.
- Artists, politicians and scientists use photography to represent and also explain their ideologies, beliefs, ideals, principles, ethics, morals, faith and teaching as well as to civic matters like elections.
- It is also important for story telling—mainly in children books and newspapers. On the other hand, many journalists use photographs to make or write news.
- Photography helps us to remember important things or days of our life. For example school life, fun days and wedding days.
- It has a greater possibility of helping us to learn about new places, sites and areas far away from our surroundings by using descriptive pictures of scenery or landscapes.
- Other photographers go extra miles to take real life pictures that educate us about the life of animals, birds and plants in the wilderness.
- Photography assist artists to sketch beyond what eyes may not be able to see.
- And by exchanging photographs, we can easily make mutual attachments with friends.

Photography motifs

When photography artists mention motifs they are referring to learning aspects from themes like landscapes, portraits and the nude et cetera.

Although nude themes are common in photography and art, some of their intended aims and objectives are incompatible with minority learners below minimum age. "In every era, in every age, portrayals of nudity risk official condemnation." (Rasmussen & Amey 1997, 569)

Nonetheless, there are very many new and outstanding photography themes or motifs from which learners can find inspirational ideas to make better their acquired photography skills. According to Rosenblum (1997, 530) "... all photographers make decisions concerning the selection of a motif"

Here are some basic selections of photography motifs:

- Human beings (*portraits, group pictures, human forms, the body or the nude, fashion and style*)
- Still-life and nature (*arrangements of contrasting objects, plant life in distinct shapes, colours, textures*)
- Landscape (*weather, sky, nature, shadows, light, scenery, sight-seeing*)
- Architecture (*perspective and angles, outdoors*)
- Indoor interior (*architectural details, fittings, furniture*)
- Automobile (*cars designs, interiors and exteriors*)

Elements and principles of design in photography

As a creative photography artist it is important to take elements and principles of design into account considering that composing a photograph will appropriately fit art and design activities. Leland (2006, 50) looks at "*photographers as designers*, a good photographer is a designer who understands the elements and principles of design and uses skills and experience to bring them together to make an expressive picture." As a result of that, it is necessary for creative artists to have some clear knowledge of how to make the most from them.

Here is some of what we can learn about using elements and principles of design in photography:

Elements of design	
Light	Natural light is good for taking photos. Keeping in mind that, it is challenging to take photographs of African skin. Zucker (2010) offers a rational opinion: "When photographing a black person ... stand against light or a bright background" because "a resulting image might create too much contrast. One has to know how to use the light."
Texture	In photography texture can be used to put forward depth and character. Rosenblum (1997, 12) offers a rational explanation: "Photographic prints sometimes display significant difference and texture, as a result of using different process and printing on different papers." In spite of that, texture in photography can be generated by taking close up pictures.

Colour	The main purpose of colour is to enrich appearances and moods. Sometimes artist use colour to find their way into photography and to a larger extent, colour is linked to light in photography.
Lines	From an already taken photograph, lines may be vertical, diagonal, horizontal, zigzag et cetera. A photograph with manifestations of lines will generate aesthetic sequential arrangements of active lines—these generally appeal to landscape photographs. Such photographs use line and other attributes of perspectives to divide the horizon in parts. Sometimes they use repetitions.
Space	Allows a subject in a photograph to appear balanced within unoccupied areas. Shepherd (2001, 28) used a photographic frame of a swan to explain space. He noted that, as “the mind perceives balance ... when the subject occupies one-third of the frame and empty space fills two-thirds of the frame.” This makes the smaller occupied space appear balanced in a composition as a result of the “larger unoccupied space.” As a creative photographer, try to make full use of both spaces.
Principles of design	
Contrast	The special effects of colour contrasts can be achieved by capturing distinctive areas of a photograph with high against low tones. Some photographers achieve this by taking black and white pictures.
Unity	This is a principle of design used to display visual harmony. Warren (2002, 67) explains, “unity in a photography ... as coherence of visual elements, the feeling that they belong together.” That is to say, unity with the assistance of colour gives chance to orderly variety, harmony and emphasis in a picture.
Emphasis	Emphasis is mostly used to determine the centre of interest. Galer (2002; 90) believes, “using emphasis should lie in observing or seeing and not the later manipulation in order to communicate the artist’s feelings.” Certainly, to realise emphasis, a photographer has got to make use of exposure effects and lighting—in specified areas of a photograph. Sometimes emphasis is attained by making under or overexposure.

Balance	According to Sheppard (2008, 60), “balance is a basic part of a photograph.” It helps the photographer make amends to the different colours created by light (natural/artificial). Good artistic photographs depend on balance—by using dark shadows and light.
Perspective	It is quick to find perspective in landscape photographs. Galer (2004, 23) says, “using any perspective present in the image and the scale of known objects we view the image as if it exists in layers at differing distances.” Perspective is not for a drastic look of an image alone. It also helps artist to appreciate sizes of figures.
Pattern and repetition	Shepherd (2001, 32) says that “in photography, repetition simply means repeated images.” He used an interesting example of “two mirrors placed adjacent to one another at 45° angles, the image in a mirror will repeat itself in an infinite number.” In other words, patterns and repetition can also be done by taking a picture of “fence posts running along an open field.”
Framing	In photography framing can be used for different purposes. For example; to create a balanced space, display emphasis and to relate images to other elements. Warren's (2002, 151) offers a rational explanation: “Selecting what to appear in a photograph by camera position or lens choice is called <i>framing</i> ... Being aware of these effects can help you to make more effective photographs.”

As a photography artist, go ahead and make further investigations about elements and principles of design necessary for taking pleasant pictures in a professional way.

Categories of photographs

Photography consists of numerous categories. According to Barrett (1990, 85) photography categories include: “*descriptive, explanatory, interpretative, ethically evaluative and theoretical photographs.*”

Here is how Barrett (1990, 85) explains each category:

Aesthetically evaluative photographs	Photographs of this kind are usually about themes of beautiful things. For example, <i>nudes, landscapes and still life.</i> They are carefully lit, posed for maximum aesthetic effect, faceless and nameless. Sometimes they are only torso, male and female studies of human forms.
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Explanatory photographs	They indicate time and a place. To the extent that, a photograph taken can be dated by visual evidence and they are commonly used in <i>books, magazine and newspapers</i> .
Descriptive photographs	Include images like; <i>identity photographs, medical X-rays, surveillance and reproductions of artworks</i> et cetera. Descriptive photographers focus on subject matter and they are pain staking to produce, or to get up to a required standard of quality.
Interpretative photographs	These explain how things are but they do not attempt scientific accuracy nor are they accountable to scientific testing procedures. Interpretative photographers' stage people in front of a lens, or they intervene in real life situations by directing participants.
Theoretical photographs	They reflect on issues about art and art making, about politics of art, about modes of photo representations and other theoretical issues about photographing and photography. They are <i>photographs about films, photographs about photographs, art about art</i> .

As a creative photography artist, you will find varying categories listed down by different photographers for their popular photography subjects and unlimited aims. Hickman (2005, 61) affirms, "There is a potentially illuminating correspondence here with subjects that also have tactic presence within art and design community of interest and which are likewise unrecognised as prime disciplines— photography and media studies. Here it is acknowledged that while each significantly enhances the other, each may also stand alone."

A pinhole camera (obscura)

This is a simple device, which can be made out of a tin or a box to record images directly onto a photographic paper. It consists of a small hole on one side used as an aperture and no lens. "The principle of the camera obscura is in fact the same as that of the photographic camera. The only difference is that, images of a photographic camera are recorded by a light sensitive chemical rather than the draft man hand." (Ashwin 1982, 248)

Clearly, then, a pinhole camera can be constructed in very many ways with various simple tools, equipment and

materials in different shapes, sizes, with several holes, films and other light sensitive materials.

Some creative photography artists construct pin hole cameras using a window—inside their own bed rooms. Or if you have a camera, remove and replace the lens by gluing a paper, then pierce a small hole on the paper.

How to make a simple pinhole camera

Find an empty box, or a clean can (soda tin). Whatever may be selected tin or box must be straight with all its sides aligned uniformly without a curve or bend.

Paint inside the obtained box or tin with a thick layers of black acrylic paint or a permanent black marker, to prevent light from flaring. Take it away from access to light and close up all its corners to keep it safe.

Then, cut a square hole (approximately 1.5cm x 1.5cm) on its front part. And then, use a *foil paper* obtained from a *used cigarette packet* to cover the hole by fixing it well on the surface of a box using an *adhesive tape*.

By using a sharp *small pin* make a tiny hole on the foil. And then, use a *pen* to smoothen down edges of an attained hole. The smaller the hole the sharper the picture—you need to shape or create a cover that will be used as a lid to shield the hole for the time of transferring the camera back and from a darkroom. The cover paper should be thick enough for that purpose.

Next, carry the box inside a *darkroom*. In essence, the room must be very dark.

More or less, black and white papers are responsive to blue and green light. As a consequence, red light (amber coloured light) is safe to use in a darkroom to avoid exposing a photo paper.

Attach the photo paper (a pinhole camera uses black and white photographic enlarging paper) inside the box with an adhesive on one side opposite a pinhole. The photo paper shall work as a film. Cover it so tightly.

After that, take the constructed pinhole camera out. Fasten and position it in a safe place—of no inference, but with full access to light. Avoid shaking it during relocation.

If the installation stage is complete, open the small lid cover for light to enter through the small hole (on a pinhole camera a hole acts as a lens).

Light entering through a pin hole is what will allow images to copy on the photo paper sealed inside.

If the light outside is very bright. Then, it may take less than 4-6 minutes for an image to develop on a photo paper.

Assuming that everything is done and you want to take your pinhole camera back in the dark room. Close and press the shutter flap paper of a hole and make sure you do not shake the camera.

Then remove and carefully carry the pinhole camera back to the darkroom—to develop the photo paper into a photograph. Other less inquisitive photographers open their pinhole cameras after many months or even years. For instance, by using a large format pinhole camera, *Michael Wesely* a German photography artist captured light and images of objects for up to 3 years.

As we make our final conclusion about this process, we have to understand that “the mess accompanying all art activities will be in exact ratio to one’s failure to think a head.”

(Jenkins 1980, 151) That is to say, before a photographer attempts to make an actual pinhole camera. It is important to make experiments.

Film and digital

Both film and digital can produce excellent photographs. The most outstanding problem is *high indirect costs for digital* as compared to film. For instance, digital consumes much energy from rechargeable or replaceable batteries and it requires up to date software as well as hardware to compete with prevailing photography versions used by computers and other necessary equipment.

Yet, film photography is all about converting existing resources to develop photographs. Nevertheless, the process of producing a film photograph consumes more time than a digital camera; the images are produced electronically, while the film camera process involves developing films and printing images.

In spite of that, digital and film cameras vary. They exist in different models, sizes and brands.

Benefits of using a digital camera

Digital cameras are easy to use because they have better electronic mechanisms, which can allow users to have instant adjustments before or after the picture is taken.

Nevertheless, nearly all digital cameras have different graphic applications; most of them serve almost identical purposes.

Here are some of the few rewarding aspects of using a digital camera:

- A digital camera can instantly show images taken on its display screen, as soon as images are converted and recorded.
- A digital camera can store thousands of high resolution images on a distinct memory device.
- It can as well record videos with sound.
- Unwanted images on a digital camera may be immediately deleted for more storage space.
- Digital cameras can crop pictures and they can perfectly perform other basic image editing needs.
- Photographs needed can be printed instantly.
- At present digital cameras are easier to own because they are available on ordinary mobile phones.

As a result of that, digital cameras enable photographers to obtain nearly all elegant and aesthetic effects within one instant shoot of a picture.

On the other hand, digital photographs are an easy target for making false manipulations—easily performed by a desktop computer loaded with image editing software or applications. And also, chances are high that a photographer will miss important shots since digital cameras rely on rechargeable batteries or they are mainly electronic. A picture cannot be taken easily on low batteries.

Benefits of using a film camera

Film cameras were considered as the most advanced before digital cameras became familiar to many photographers. Such cameras used a semi-automatic moving mirror system (through a view finder) for the photographer to see what a film will capture.

And in principle, photographs taken by a film camera had to be developed or scanned before viewing them.

Currently, film cameras have very few benefits to a present-day user. Hence we shall combine *benefits* and *draw backs* to analyse and discuss further about film cameras.

Here is how:

- Film cameras were highly desired in the past for taking black and white photos with precision.
- A film camera is a good choice for point-and-shoot photographs. The photographer is not worried about low battery or batteries.
- It is reasonably cheaper to produce good quality images at a low cost.
- Most film cameras are bigger and heavier.
- A photographer has got to be with a big shelf to make archives for collecting and also store authentic photos.
- Also, film cameras use films that consume space. Yet, they support a smaller number of pictures.
- It is as well expensive and inconveniencing to rely on buying a film for the camera whenever pictures have to be taken.
- The processes of developing film photos are more hectic. For instance, a photographer is impelled to a darkroom or a laboratory for developing a film. This can waste a lot of beneficial time.

Exercise

In all tasks provided, learners are expected to choose **one** task only. Each project should be supported with adequate research and background work where possible.

Note; pictures taken by mobile phones are allowed.

1. Take an explanatory photograph of a landscape showing **one** element of design you know. It must be clear and noticeable.
2. Find a convenient spot for taking at least two interpretative photographs of an indoor staged scene showing worried and helpless parents watching their sick child lying down on a mat suffering from *Cholera*. On one side of the patient, put a well-lit candle or *tadooba* (kerosene lamp). Or, it can be held by one of the attendants with one hand. The photograph must display enough light only in the necessary parts such as the foreground and less light in the background.

3. Find a picture/photograph from newspapers showing **two** or more elements and principles of design. List them down. Then go and take a photograph that manifests the same elements and principles of design.
4. Once upon a time, you were the best in an award-winning school competition. Pose and ask a friend to take your portrait picture showing a sudden feeling of excitement. The photograph taken must be expressive and sincere.

CHAPTER FOURTEEN

This section contains tasks for revision. They are intended to benefit learners, trainees, apprentices and undergraduates who find challenges in *Paper 5, Craft A (Graphic design)*. Most importantly, it provides assistance to learners of art and design preparing for their final year examinations as well as student teachers doing their first training in teaching art.

Equally, users shall be acquainted with some feasible series of steps necessary to prepare for art and design exams.

A candidate in the examination room

Entering the examination room starts with checking candidates to avoid acts of dishonesty such as copying. So do not enter with any unnecessary material.

In other words, the invigilator will check each candidate to prove that the absolute person is the one supposed to sit for the exam.

When you get inside, concentrate and be focused. That is to say, avoid actions that will cause interruptions such as unfinished conversations or walking around to borrow materials you did not carry beforehand.

Inside the examination room, candidates will obtain seats and they will be provided with some few—necessary tools and materials. However, it is for your own good to take what you think shall be necessary because not a great variety of materials and tools are made available for exams by individual schools.

Sit in a comfortable place. By minimum standards a candidate should be able to work without restriction or interference—able to see all feasible details caused to be necessary by a task set (or specimen in *nature and/or still life*). For example, shadows and direction (source) of light, foreground, middle ground and background.

Make your tools reachable or accessible. Then, read all instructions and make sure that you understand each question (task) carefully. Note down what might be needed by the task you have chosen to tackle and make sure that you keep on the same level with the demands specified by the task you plan to attempt. Do not take a single piece of information required for granted. Also, remember to write your name clearly as well as your index number.

Ultimately, reading a set task in a proper way—using logical reasoning enables a candidate to translate and interpret meanings of information into expected answers.

Ask the invigilator to provide you with some materials (sheets of papers or a canvas) needed for the task you have selected or, which you are about to attempt.

For the most part, throughout art and design exams a candidate is expected to be *creative, attentive, innovative patient* and *neat*.

When you are told to start, avoid wasting time by attempting unfamiliar tasks or questions, materials or equipment. Choose tasks you have often encountered in your daily (class room) practices.

And as a result of that, not all materials and tools made available during examination are extremely necessary. Thus you will not earn a single extra mark by using each one of them.

Start sketching within the exact dimensions or size stated by a set task you have chosen to attempt (this is meant for paper 5, Art/craft A). Sketching within dimensions given helps a candidate to finish quickly during the first stage of working and in every stage of the *second session*—by tracing—the sketch shall be transferred to another (final) *paper*. Tracing brings very many advantages to a candidate.

Let us make a brief analysis of the benefit:

- It is easy to properly balance your layout on the final paper.
- You will finally obtain a clean work.
- Tracing redirects most of the mistakes to a sketch-paper alone.
- It reduces the use of an eraser or rubber.
- It provides a clear proof of work that the project or design created was done by you. Hence, the examiner shall be sure to award you with boundless scores or grades.

In accordance with the *Uganda Advanced Certificate of Education, Regulations and Syllabuses, 2009 – 2012* (Uganda National Examinations Board, 2008, 226). "Further evidence of study in the form of notebooks or folders containing working drawings or photographs and showing sources of ideas, all of which must be entirely related to a craft offered, must also be submitted.

Crafts other than those detailed above cannot be accepted.” Indeed, a sketch provides evidence of work put forward as well as the process. It can also stand in for the final design even when the artwork is not fully complete. That is to say, do not take the planning session for granted.

When the exam ends, wait for final instructions from the invigilator. Where possible, use this time to check if you have done what is expected of you.

In case there is a mistake. Do not panic. It is safe to ignore that omission or misinterpretation than wasting time trying to rectify what may not be achievable. Endeavour to correct only that—viable mistake. In general, spellings of your name and index number are the most important.

Assuming that the process of working to finish the exam or practical test took more (than two) papers attach all—of them together with a staple wire or thread and hand them in to the supervisor or invigilator in a pile.

In conclusion, remember to always clean up and organise the space or place where your work has been done. Return back all the furniture and leave the place in proper order.

This is a precaution for any organised artist.

Tasks for revision

In this subsection, various graphic designs have been sorted out into categories using a table for learners to locate them without difficulty and only **one** question is expected to be answered. Materials are restricted to flat paper, ink and/or colours.

In situations where calligraphy has to be used, learners must be aware of the following (*Uganda Advanced Certificate of Education, Regulations and Syllabuses, 2009 – 2012, pg 225*):

- Calligraphy art should be written with a pen or a brush made for writing lettering.
- Smudged work leads to loss of marks
- Fluent and direct use of artistic language is an added advantage.
- Lettering, spacing, legibility and composition.
- Planning (sketching), craftsmanship, understanding colour harmony and colour balances.

All this and more will be used in a random miscellany to achieve a very attractive design.

Here is a table display showing other basic *visual/identification symbols* in their exclusive categories:

Category one	Category two
Badges	Book covers
Trademark	Book jackets
Stamps	Book fronts
Emblem	Labels
Monogram	CD and cassette slips
Logo	T-shirt
Category three	Category four
Poster	Flag
Card	Package papers
Sticker	Calendar
Wrapping paper	Banner
Notice sign	Bill board
Signpost	Certificates

In some measures, the four categories listed by the table provide a range of graphic design tasks in addition to the activities typical of day-to-day life. You are expected to answer *one question* and state the category number in which it belongs:

Category one

1. At your school there is a readers' group known as *Book readers club*. In an area, 15cm by 10cm design a trademark that will be used on their hand written publications. Include the following text “Be like us.” Use not more than three colours.
2. The art and crafts youth project in your community needs a badge for the purpose of encouraging self-employment. The final size of the badge shall be 10cm by 15cm. Use black and white together with one other extra colour of your choice.
3. The Uganda National Agricultural Advisory Services (NAADS) has discovered grasshoppers and white ants are a favorite snack for tourist consumption. In an area of 10cm x 15cm, design a postage stamp commemorating next year’s World food day. State your own slogan.

4. Design a monogram from the name of your school. Size 12cm × 30cm. Use one dominant colour from the school uniform.
5. Design an emblem showing three traditional musical instruments for a popular music group at your school known as 'Ekimbewo Kyange.' Produce the final design in black and white. Size: 20cm × 20cm.
6. The National Environment Management Authority (NEMA) wishes to adopt new T-shirts for partner clubs in schools. They will display a new logo in front and a new motto "our Wetland our Life" at the back as a way of disclosing the importance of wetlands to the Ugandan public. Make a plan of a finished design and use only three colours. Size: 25cm by 35cm.

Category two

1. At your home village, women have formed a co-operative society to show how they are now liberated and they have written a book about progressive women. Design a cover for the book. Size: 22cm by 16cm, spine 2.5cm. Use three colours only.
2. Mubu publishers limited will publish a new book entitled "The calligraphy tails" by Odo Mango. The size of the book is 25cm long, 15cm wide; spine 4cm and flap width 7cm design a book jacket. Use a computer to execute the final design.
3. In an area of 25cm × 30cm design a front cover of a book titled *Art and Culture in Africa*. By Martin publishers Ltd. Use not more than three colours.
4. Design a label to be printed on ½ litre bottles of packed boiled water. Include the word QUENCH in the design and use only two colours. Size: 10cm × 15cm
5. The science club at your school is hosting a seminar to fight drug theft from hospitals and community health centres. You are required to design a T-shirt or a notice sign for member participants. Include a slogan "No wealth-for-all without health-for-all." Use three colours.
6. Design a (CD) compact disc case cover for teen-age type of folk music titled "kaneemu." Work within a space of 20cm by 20cm. Produce the sketch and use the computer to draw-up the final design.

Category three

1. In a space of 30cm × 45cm, design a poster warning the public about the dangers, effects and causes of school fires. The word "fire extinguishers" must appear with striking colours. Use only two colours.
2. The old boys and girls of Nandere academy will hold a Christmas party on 23rd December this year at the home of Mr. Muliro in Kalule village. The party will begin at 4:00 p.m. In a size chosen by you, design a card inviting guests to this party.
Include the following sentences.
You are invited to attend the old boys' and girls' party.
We can't wait to hear whether you have been naughty or nice.
Soft drinks and dinner will be served by your hosts.
3. The National Health Care Authority has mounted a campaign against consuming crude waragi, *Lira Lira*. Design a sticker to caution the public about excessive drinking and drug abuse. Size: 20cm by 25cm. Use two colours only.
4. A new association for babies' well-being "Sweet-Mama Ltd" wishes to foster breast feeding to young mothers. As a designer create a decorated maternity package box or a wrapping paper. Include a pattern showing a special awareness message.
5. The tribal chiefs of your home village have formed an association to fight against ritual killing of humans. Design a notice sign measuring 20cm × 35cm for the association. Their motto is "cease child sacrifices."
6. Design a signpost for a bad crossroad at your school warning drivers to *slow down and to drive carefully*. It should be brief and very clear. Size 25cm × 40cm. Use only two colours.

Category four

1. The subject matter usually influences the choice of style and weight of lettering to be used within layouts. Baring this in mind, design a banner announcing a charity football club THE VAGABONDS helping to promote trust by encouraging the community to collect aid for assisting homeless children. The size of the final design is up to you. Use three colours only.

2. In an area of 25cm by 30cm, design a packaging paper for carrying wedding presents. Include an illustration and the following words; “*Now join hands and with your hands your heart.*” Use only three colours.
3. Doctors have discovered that everyone at your school is malnourished because of lack of proper nutrition caused by not having enough to eat and not eating enough of the right food. As a way of sensitising students, parent and teachers, a food factory Maito Foods and Beverages has commissioned you to design a children's memorial flag for a public awareness campaign. Use not more than three colours. Size: 30cm × 45cm.
4. The National Tourism Authority needs a billboard to be displayed on a major entry road to caution the public about dangers of killing and selling extinct wild life. Include this statement “... *the poacher made me do it*” as a new slogan. Actual size is 2 metres (width) and 5 metres (height). Adjust the design to a suitable scale of your own choice and use only three colours.
5. The crested crane academy needs a certificate, which will be awarded to outstanding students who shall excel in various academic and extra-curricular activities. Indicate the national emblem on one side of the certificate and the following text:
 *has meritoriously won this award for his/her outstanding contribution as a*
 The certificate will be signed by a *discipline master* and the *headmaster*. Size: 35cm × 22cm
6. The wildlife club at your school needs a calendar for the New Year to educate the general public about protecting wild life and planting trees. Make a design for the first month. Indicate day 15 as a commemoration date and use not more than three colours.
 Size: 25cm × 30cm.

How to make art and design assessments

Only necessary advice and information has been provided here—aiming at helping teachers and learners to obtain feasible knowledge and possible ways of how to assess a finished art and design exercises.

According to Webbo (2006, 73), “The teacher is required to assess the pupil's work to determine whether or not that pupil is making progress in learning.”

A great deal of essential facts necessary for guiding course evaluations have been adopted from various outstanding Ugandan books of a kind like; the *Secondary Education Syllabus for Art and Design, 2002* (Volume Four). The book provides learning expectations, aims and objectives that are often not well stated during the lesson. In particular:

- Mastering the skill of craftsmanship and observation.
- Understanding the procedures applicable for executing a design.
- Developing ability to transmit a message effectively and economically.
- Understand and translate a message successfully in visual form from a set problem.
- Helping a candidate in mastering skills of craftsmanship relevant to a resented task.
- Enabling candidates to make use of local and readily available resources in art and design, et cetera.

As a result of that, teachers and mostly student teachers can now effortlessly familiarise with a wide range of guiding instructions on how to form evaluation opinions concerning art and design by using the *Secondary Education Syllabus of Kenya* (2002) in which “suggested methods of assessment” were made available. For your convenience, here is table indicating the common method of assessment used in schools:

	Continuous assessment	Final assessment & evaluation
a) Theory	- Oral and written tests/exams	Written tests or exams
b) Practical	- Objective observation of finished work and work in progress.	- Objective observation of finished work

A marking guide

A marking guide leads the teacher to a genuine evaluation process. In art and design it differs many times. For the reason that, the learning objectives keep changing.

Stoddart (2002, 7) offers a suggestion about the best course of action; "ask your teacher for a copy of the mark scheme and see how well you are able to apply it in your work.

Check as you go along to see if there is any areas in which you think you need to improve."

Here is one example of a marking guide:

Areas of assessment	Marks, out of 50	Scores ×2
Using lines		
Aspects of form		
Composition		
Use of tones and shading		
Subject matter		
Total out of 100%		

Essentially, a marking guide is necessary for making a successful evaluation or estimation process during marking. It enables teachers to work out proper scores, to determine the set number of marks from a list of specified aims and objectives.

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Bibliography and references

Books

Arens, William & Weigold, Michael & Arens, Christian (2008). *Contemporary Advertising*, New York: Mac Graw-Hill Irwin.

Arntson, Amy E (2011). *Graphic Design Basics*. USA: Wadsworth

Ashwin, Clive (1982). *Encyclopaedia of Drawing. Materials: Techniques and Style*, Melbourne: Oxford University Press.

Baker, Marilyn (1984). *The Winnipeg School of Art: the early years*, Canada: University of Manitoba Press

Baldwin, John (1967). *Contemporary Sculpture Techniques: Welding Metal and Fibreglass*, New York: Reinhold Publishing Corporation.

Bamberg, Matthew & Carson, Howard (2006). *Digital Art Photography for Dummies*, USA: Wiley publications.

Barnard, Malcolm (2005). *Graphic Design as Communication*, New York: Routledge.

Barrett, Terry (1999). *Criticising Photographs: An Introduction To Understanding Images*, California: Mayfield Publishing Company.

Beittel, Kenneth. R (1989). *Zen And The Art Of Pottery*: Weatherhill. (Paperback)

Belfer, Nancy (1992). *Batik and tie dye techniques*, New York: Dover Publications. Revised edition

Bell, Quentin (1983). *Techniques of Terracotta: A practical Hand Book*, Southampton: Camelot Press Ltd.

Bellamy andrew (2004). *Systematic/subjective colour selection*, ava publishing (UK) Ltd.

Berman, Esme (1999). *Berman's Art and Artists of South Africa: Historical survey of painting and graphic art*, South Africa: Southern Book Publishers.

Beveridge, William I. B (2004). *The Art of Scientific Investigation*, New York: Vintage Books, Blackburn Press.

Bjørnard, Kristian & Lupton, Ellen (2008). *Indie Publishing: How to Design and Produce Your Own Book*, New York: Princeton Architectural Press.

Blake, Wendon (1997). *Acrylic Watercolor Painting*, USA: Dover Publications; Revised edition

Boad, Niir (2002). *Screen Printing Technology Hand Book*. Delhi, INDIA: Asia Pacific Business Press Inc. (Paperback)

Bongers, Frans & Parren, Marc P. E. & Traoré, Dossahua (2005). *Forest Climbing Plants of West Africa: Diversity, Ecology and Management*, Wallingford Oxfordshire, UK: CABI Publishing, CAB international Books

Bradley, Barbara (2003). *Drawing people: how to portray the clothed figure*, USA: Ohio, North Light Books

Brady, Philp (1993). *Using Type Right: 121 Basic No-Nonsense Rules for Working With Type*, USA: NTC/Contemporary Publishing Company.

Buser, Thomas (2006). *Experiencing art around*, USA: Second Edition, Thomson Learning

Cartwright, Wendy (2007). *Weave*, Australia: Murdoch Books

Chandra, Rai Govind (1979). *Indo-Greek jewellery*, India: Abhinav Publications.

Cheshire, Gerard (2006). *Light and Colour*, London: Evans Brothers limited.

Chorzempa, Rosemary. A (1987). *Design Your Own Coat of Arms: An Introduction to Heraldry*, New York: Dover Publications

Cohen, Elaine Pear & Gainer, Ruth Straus (1976). *Art: Another Language for Learning*, New York: Citation Press.

Constable, W. G. (1955). *The painter's workshop*, London: Oxford University Press.

Cotton, Charlotte (2009). *The photographs as contemporary Art*, London: Thames & Hudson.

Crabtree, Susan & Beudert, Peter (1998). *Scenic Art for the Theatre, History, Tools and Techniques*, USA: Focal Press.

Curtis, Gregoryn (2006). *The Cave Painters; Probing the Mysteries of the World's First Artists*, NY: Knopf.

Curtis, Penelope (1999). *Sculpture 1900-1945 (Oxford History of Art)*. Illustrated edition, USA: Oxford University Press, (Paperback)

Dabner David et al. (2009). *The New Graphic Design School: A Foundation Course in Principles and Practice*, USA: Wiley publications (Paperback)

Dahl, Carolyn A. (2004). *Transforming fabric: 30 creative ways to paint, dye and pattern cloth*, USA: Krause Publications

Davison, Ralph C. (2007). *Concrete Pottery and Garden Furniture*, New York: Campbell Press

Dawson, Robert (1972). *Practical carving in wood, stone, plastics and other materials*, USA, University of Michigan: Watson-Guptill

Dierks, Leslie (1997). *Making Mosaics: Designs, Techniques & Projects*, NY: Altamont press.

Digolo, O & Mazrui, O (1988). *Art and Design Form 3 and 4*. Nairobi, Kenya: Heinemann Kenya Ltd.

Digolo, O & Mazrui, O (1990). *Art and Design Form 1 and 2*. Nairobi, Kenya: Heinemann Kenya Ltd.

Dodson, Bert (2006). *Keys to Drawing with Imagination: Strategies and exercises for gaining confidence and enhancing your creativity*, Australia: North Light Books.

Eggleton, Nick (2004). *The Essentials of GCSE Art & Design*, UK: Lonsdale Revision Guides, (Paperback).

Eiseman, Leatrice (2003). *The Colour Answer Book: From the World's Leading Colour Expert*, USA: Capital Books (VA). (Hard cover)

Eldershaw, Jane (2002). *The Everything Knitting Book: Simple Instructions for Creating Beautiful Handmade items for Your Family and Friends (Everything Series)*: Adams Media (Paperback)

Elkins, James (1999). *What painting is: how to think about oil painting, using the language of alchemy*, New York: Routledge.

Feisner, Edith Anderson (2006). *Colour: How to use colour in art and design*, 2 edition, UK: Laurence King Publishers.

Fichner-Rathus, Lois (2007). *Foundations of Art and Design*, 1 edition. USA: Wadsworth Publishing. (Paperback)

Fiell, Peter & Charlotte (2007). *Contemporary Graphic Design*, Köln: Taschen (Hardcover)

Finn, David (1994). *How to Look At Photographs. Reflections on the Art of Seeing*, New York: Harry N. Abrams, Inc. Publishers.

Galbreath, Joseph (2008). *Design Basics. Indie Publishing. How to Design and Publish Your Own Book*, New York: Princeton Architectural Press.

Gale, Emma & Ann, Little (2004). *Teach Your Self Jewellery Making*, USA: McGraw-Hill.

Galer, Mark (2004). *Photography Foundations for Art and Design. A Practical Guide to Creative Photography*, Third Edition. UK: Focal Press, (Paperback)

Gardner, Elizabeth B. (2006). *Opportunities in Arts and Crafts Careers*, USA: McGraw-Hill Professional

Garlake, Peter S (2002). *Early Art & Architecture of Africa*, USA: Oxford University Press.

Gerald F. Brommer, George F. Horn (1977). *Art in your world*. Worcester, MA, U.S.A: Davis Publications

Giorgini, Frank (2001). *Handmade Tiles: Designing, Making, Decorating*, New York: Lark Ceramics Books. (Hardcover)

Gombrich, E. H (1950). *The Story of Art*, London: Phaidon Press Ltd. (Paperback)

Gottsegen, Mark David (2006). *Painter's Handbook: Revised and Expanded*, New York: Watson-Guptill (Paperback)

Graham, Lisa (2005). *Basics of design: Layout and Typography for Beginners*, New York: Delmar Cengage Learning.

Green, Peter (1964). *Creative Print Making*, London: F. E Bording Limited.

Hale, Nathan Cabot (1994). *Creating Welded Sculpture*, USA: Dover Publications. (Paperback)

Ham, Anthony (2009). *West Africa*, Australia: Lonely Planet

Harden, Elizabeth (1996). *Art for children: a step-by-step guide for the young artist*, USA: Chartwell Books Incorporated

Harney, Elizabeth (2004). *In Senghor's Shadow: Art, Politics and the Avant-Garde in Senegal, 1960-1995 (Objects/Histories)*, USA: Duke University Press.

Hastings, G. Prentice (1986). *Computer-aided design on the Macintosh*, USA: Prentice-Hall, The University of Michigan.

Hickman, Richard (2005). *Critical studies in art and design education*, USA: Intellect Books.

Hinshaw, Craig (2008). *Clay connections; Innovative Ceramic Lessons that Make Connections to the Elementary School Curriculum & Seasonal Calender*, USA: Poodles Press.

Jackson Dewey, Philip (1998). *John and the Lessons of Art*, New Haven, CT: Yale University Press.

Jean-Baptiste, Bacquart (1998). *The Tribal Arts of Africa, A survey of the artistic achievements of African artists south of the Sahara*, London: Thames & Hudson.

Jenkins, Peggy Davidson (1980). *Art for the fun of it: A guide for teaching young children*, USA: Prentice Hall Direct.

Jenkins, Sue (2010). *Smashing Photoshop CS5: 100 Professional Techniques*, USA: Wiley

Jung, Karl Otto (2004). *Seeing colour: a study in the artistic use of colour*, New Delhi: Biblia Impex Pvt Ltd.

Kafka, Francis. J Batik (1973). *Tie Dyeing, Stencilling, Silk Screen, Block Printing: The Hand Decoration of Fabrics*, New York: Dover Publications

Katz, Helen E (2010). *The Media Handbook: A Complete Guide to Advertising Media Selection*, UK: Taylor & Francis e-Library

Kenly, Eric & Beach Mark (2004). *Getting It Printed: How to Work With Printers and Graphic Imaging Services to Assure Quality, Stay on Schedule and Control Costs*, 4th Edition. Ohio, USA: HOW Design Books. (Paperback)

Kennedy, Cliff & Pompilio, Jane Wendling (2005). *Garden mosaics made easy*, USA: F & W Publications

King, Sonia (2006). *Mosaic Techniques & Traditions: Projects & Designs from Around the World*, New York: Sterling (Paperback)

Kipphan, Helmut (2001). *Handbook of print media: technologies and production methods*, Berlin; New York: Springer

Kohler, Michael (1995). *The Body Exposed: Views of the Body: 150 Years of the Nude in Photography, Zurich, Switzerland Edition*. First Edition: Stemmler (Hardcover)

Korza, Pam & Magie, Dian (1989). *The arts festival work kit*, USA: Massachusetts, Arts extension service

Landa, Robin (2000). *Graphic Design Solutions*. 1 edition, USA: Delmar Cengage Learning.

Lang Donna, Lucretia Robertson, Michael Datoli (1989). *Decorating With Fabric: A Design Workbook With More Than 200 Beautiful Projects to Sew for the Home*, USA: Clarkson Potter

Larned, W. Livingston (1925). *Illustration in advertising*, New York: McGraw-Hill

Laura, Torbet (1980). *The Encyclopaedia of crafts*. Volume 2, USA: Scribner.

Lawrence, Gordon (2010). *The Creativity of Social Dreaming*, London: Karnac Books limited.

Lee, Justin (2002). *How to draw insects*, New York: Rosen Publishing

Leland, Nita (1998). *Exploring colour: How to use and control colour in your painting*. Revised edition, USA: North Light Books,

Leland, Nita (2006). *The new creative artist: A guide to Developing Your Creative Spirit*, USA: F & W Publications Inc.

Levin, Adam (2005). *The art of African shopping*, South Africa: Struik Publishers

Lidwell, William, Kritina Holden, Jill Butler (2010). *Universal principles of design, 125 ways to enhance usability, influence perception, increase appeal, make better design decisions and teach through design*, USA: Rockport Publishers

Linley, Mark (1995). *How to Draw Anything*, UK: Elliot Right Way Books.

Loup, Jean, Pivin & Fall, N'Gone (2002). *An Anthology of African Art, The Twentieth Century*. Germany: Prestel.

Lugira, A. M (1970). *Ganda Art*, Uganda; OSASA Publications.

Lund, Bill (1998). *The Chumash Indians*, USA: Capston Press, Bridgestone Books

Lupton, Ellen & Jennifer C. Phillips (2008). *Graphic design: the new basics*. 1 edition: Princeton Architectural Press.

Maiti, Sameera (2004). *The Tharu: their arts and crafts*, Delhi: Northern Book Centre

Malins, Frederick (1980). *Understanding Painting. The elements of Composition*, UK, London: Phaidon Press Ltd.

Mamiya Christin. J & Kleiner Fred S (2009). *Gardner's Art Through the Ages. Non-Western Perspectives*, USA: Wadsworth Publishing

Mayesky, Mary (2009). *Creative Activities for Young Children*. Eleventh edition, USA: Delmar Cengage Learning.

McMillan, Kathleen & Jonathan Weyers (2007). *Smarter Student, United Kingdom*: Pearson Education.

Mead, Jean (2008). *What Do Signs and Symbols Mean in Religion?* London: Evans Brothers Ltd

Mesure, Anna. Macke (2000). *August Macke, 1887-1914*, Köln: TASCHEN.

Meyer, Laure (1992). *Black Africa-Masks, Sculpture, Jewellery*, Paris: Editions Pierre Terrail

Michael Day, Al Hurwitz (2007). *Children and their art: Methods for the elementary school*, USA: Thomson Wadsworth.

Micklewright, Keith (2005). *Drawing: mastering the language of visual expression*, United Kingdom: Laurence King

Miller, Sharilyn (2005). *Bead on a Wire: Making Handcrafted Wire and Beaded Jewellery*. 3 edition, USA: North Light Books (Paperback)

Mills, John W (1990). *The encyclopaedia of sculpture techniques*, United Kingdom: Batsford Ltd.

Morden R, Anthony (1993). *The Elements of Marketing*, 3rd Edition, London: Athlone Press.

Müller, Kristin (2007). *Potter's Studio Handbook: A start-to-finish guide to hand-built and wheel-thrown ceramics*, USA: Beverly, Mass. Quarry Books.

Murray, Linda & Murray, Peter (1997). *The Penguin Dictionary of Art and Artists*, USA: Penguin.

Natarajan S, Godvidarajan, M. Kumar, B (2009). *Fundamentals of Packing Technology*, New Dehli: Asoke K. Gosh, PHI Learning

Nicolaides, Kimon (1941). *The Natural Way to Draw*, USA: Boston, Houghton Mifflin.

Nirmala, Patwardhan (2005). *New handbook for potters*, INDIA. New Delhi: Sunil Sachdev.

Njoroge-Kamau, George. G (1988). *Foundations of creative art: a handbook of primary school art and craft*, Kenya: East African Educational Publishers Limited.

Nnamdi, Elleh (1996). *African Architecture: Evolution and Transformation. Surveys the developments across the whole continent, well illustrated*, USA: McGraw-Hill Professional.

North, Gary (1986). *Honest money; the biblical blueprint for money and banking*, USA: Dominion Press and Thomas Nelson & Sons.

Otiso, Kefa M (2006). *Culture and Customs of Uganda*, UK: Greenwood Press.

Owen, Cheryl (1991). *Art of Paper Crafts*, USA: Salamander Books

Padovan, Richard (1999). *Proportion: science, philosophy, architecture*, New York: Spon Press

Parker Charles S, Morley Deborah (2010). *Understanding Computers: Today and Tomorrow*, USA: Course Technology Cengage Learning

Pat Torlen, George W. Shannon (2001). *Marvelous Mosaics for Home & Garden*, New York: Sterling Publishing Company

Peck, Judith (2007). *Sculpture as Experience*, 2 Expanded edition. USA: Krause Publications (Paperback)

Pedretti, Carlo (2004). *Leonardo da vinci*, UK: TAJ Books.

Pentak & Lauer (2008). *Design Basics*, New York: Thomson Wadsworth

Peterson, Jan & Peterson, Susan (2003). *The Craft and Art of Clay. A Complete Potter's Handbook*, United Kingdom: Lawrence King Publishing.

Phillips, Peter L (2004). *Creating the perfect design brief: How to manage design for strategic advantage*, New York: Allworth Press.

Preston Blier, Suzanne (2003). *The Royal Arts of Africa. The Majesty of Form*, London: Laurence King Publishing Ltd.

Quinn, Bradley (2010). *Textile Futures: Fashion, Design and Technology*, UK: Oxford International Publishers Limited

Rasmussen R. Kent, Amey L. J (1997). *Censorship: Gabler, Mel and Norma Gabler-President's Commission on Obscenity and Pornography*, UK: Salem Press

Rhodes, Daniel (2010). *Pottery Form*, New York: Dover Publications. (Paperback)

Rich, Jack. C (1988). *The Materials and Methods of Sculpture*, New York: Dover Publications.

Richard A, Lawson & Mavigliano, George J. & Myers, Fred E (1980). *Wood-Carver*, USA: Southern Illinois University Press.

Roddon, Guy (1991). *Pastel painting techniques*, USA: North Light Books

Rogers, Mary (1986). *Mary Rogers on Pottery and Porcelain*, USA: Chilton Book Co.

Rolnicki, Dow Tate & Taylor (2007). *Scholastic Journalism*, UK: Blackwell publishing Ltd

Rosenblum, Naomi (1997). *A World History of Photography*, 3rd Edition, New York: Abbeville Press. (Paperback)

Rothamel, Susan Pickering (2000). *The Art of Paper Collage*. 1 edition, New York: Sterling.

Ryan, David (2001). *Letter perfect: the art of modernist typography, 1896-1953*, Minneapolis Institute of Arts, USA: POMEGRANATE

Segal, David (1991). *Chemical Synthesis of Advanced Ceramic Materials (Chemistry of Solid State Materials)*, USA: Press Syndicate of the University of Cambridge (Paperback)

Shepherd, Bob (2001). *The Art and Business of Photo Editing: Selecting and Evaluating Images for Publication*, USA: Craig Alesse. (Paperback).

Sheppard, Rob Digital (2008). *Photography Simplified*, Canada: Wiley Publishing

Shivers, Jay Sanford (2010). *Programming Recreational Services*. 1 edition, USA: Jones & Bartlett Publishers.

Silvester, Hans (2009). *Natural Fashion; Tribal Decorations from Africa*, London: Thames & Hudson.

Smith, Kenneth Louis (2005). *Handbook of Visual Communication: Theory, Methods and Media*, USA: Lawrence Erlbaum Associates

Smith, Robert Charles (1993). *Basic graphic design. Englewood cliffs*, 2nd Edition, NJ: Prentice Hall.

Somjee, Sultan (1993). *Material Culture of Kenya*, Nairobi Kenya: East African Publishers Limited.

Spiekermann, Erik & Ginger, E. M (1993). *Stop Stealing Sheep And Find Out How Type Works, Berkeley*, 2nd Edition, CA: Adobe press.

Spilsbury, Richard (2009). *Sculpture*, New York: Rosen Publishing Group Inc.

Spring, Chris (2008). *Angaza Africa: African Art Now*, Britain: Laurence King Publishers. (Paperback)

Stecker, Pamela (1996). *The fashion design manual*, UK: Palgrave MacMillan

Steele, Valerie (2010). *The Berg Companion to Fashion*, New York: Berg Publishers

Stoddart, Tony (2002). *Examining Art & design for GCSE*, 1 edition, UK: Heinemann.

Sullivan, Chip (2004). *Drawing the Landscape*. 3 edition, USA: Wiley publications. (Paperback)

Swanson, Gunnar (2000). *Graphic Design and Reading: Explorations of an Uneasy Relationship*. 1st edition, NY: Allworth Press. (Paperback)

Taylor, Thom (2005). *How to Draw Choppers Like a Pro*, USA: MBI Publishing Company. (Paperback)

Tod, Osmo Gallinger (1977). *The joy of hand weaving*, USA: Dover Publications.

Todd, Malcolm (2004). *A companion to Roman Britain, Historical Association (Great Britain)*: Wiley-Blackwell Publishing Ltd.

Trevallion, Deborah & Strazzari, Suzanne (2003). *Design and Technology*, Australia: Pascal Press.

Trowell, Margaret (1951). *Art teaching in African Schools*, London: Faber and Faber.

Trowell, Margaret, Klaus Wachsmann (1953). *Tribal crafts of Uganda*, UK: Oxford University Press,

Van, Marthe Le (2005). *The Penland book of jewellery: Master classes in jewellery techniques*. First Printing edition. N.Y: Lark Books.

Vebell, Victoria & Victoria, Bruck (2005). *The Basics of Drawing (Design Exploration Series)*, 1 edition, USA: Delmar Cengage Learning,

Visona, Monica Blackmun & Poynor, Robin & Cole, Herbert M, & Harris, Michael D. (2000). *A History of Art in Africa*, New York: Harry N. Abrams Inc.

Vogel, Susan Mullin, Mario Carrieri (1986). *African Aesthetics*, First edition, New York: Museum for African Art.

Walther, Ingo. F (2000). *Pablo Picasso, 1881-1973: genius of the century*, German: TASCHEN

Warren, Bruce (2002). *Photography: the concise guide*, 1st edition, USA: Delmar Cengage Learning.

Washburn, Dorothy. K (2011). *Structure and Cognition in Art*, UK: Cambridge University Press

Webbo, E. B (1996). *Art and Crafts, A Teachers' Hand Book*, Nairobi: East African Education Publishers.

Weyers, Jonathan & Kathleen, McMillan (2007). *The Smarter Student: Study Skills and Strategies for success at University*, Australia: Pearson Education

White, Alex W (2002). *The Elements of Graphic Design; space, unity, page architecture and type*, New York: Allworth press.

Willett, Frank (1971). *African Art: An Introduction*, London: Thames & Hudson.

Williams, Val (1986). *Women Photographers, The other observers 1900 to the present*, United Kingdom: Virago press.

Wood, Phyllis (1994). *Scientific Illustration: A Guide to Biological, Zoological and Medical Rendering Techniques, Design, Printing and Display (Design & Graphic Design)*, 2 edition, USA: Wiley publications.

Wormleighton, Alison (2006). *Victoria Decorating with a Personal Touch*, New York: Hearst Books.

Wright, Terence (1999). *The Photography Handbook*, London: Routledge.

Zamek, Jeff (1999). *What Every Potter Should Know: Answers and Solutions to Common Pottery Problems*, USA: Krause Publications, University of Michigan

Web-enabled sources

- Bernard, Teresa. Lesson #3: *The Principle of Movement. Bluemoon Original Oil Paintings* 2001-2010 <<http://www.bluemoonwebdesign.com/art-lessons-3.asp>> Read on 28.9.2010.
- Coplan, David. *THE ARTS AND HUMANITIES* <<http://www.everyculture.com/Sa-Th/South-Africa.html>> read on 30.9.2010.
- Doshdosh.com, last updated 2010. *Infographics Can Help You Spread Ideas and Attract Attention* <<http://www.doshdosh.com/infographics-help-you-spread-ideas-and-attract-attention/>> Read on 06.3.2010.
- Ejizu Christopher I. 2010. *AFRICAN TRADITIONAL RELIGIONS AND THE PROMOTION OF COMMUNITY-LIVING IN AFRICA* <<http://www.afrikaworld.net/afrel/community.htm>> Read on 18.9.2010
- Elizabeth, Mary, 2003-2010. *What is Drawing Chalk?* Wisegeek <<http://www.wisegeek.com/what-is-drawing-chalk.htm>> Read on 10.03.2010.
- Enwonwu, Ben (2000). *THE AFRICAN VIEW OF ART AND SOME PROBLEMS FACING THE AFRICAN ARTIST*. Ijele: Art eJournal of the African World: 1, 2. <<http://www.africaresource.com/ijele/vol1.2/enwonwu4.html>> Read on 23.5.2010
- Esaak, Shelley, 2010. *What are the "elements" of art? Why are they important?* *Art History*. Last updated 2010 <<http://arthistory.about.com/cs/reference/f/elements.htm>> Read on 3.5.2010.
- Fabrics.net (2010), last updated 2006.<<http://www.fabrics.net/fabrics.asp>> Read on 2.5.2010.
- Forafricanart.com (2006) *Yoruba*. <http://www.forafricanart.com/Yoruba_ep_35-1.html> Read on 18.09. 2010
- Frank, Presbey, 2000. *The history and development of advertising, From the symbols in Babylon to painted walls in Rome. Advertising and society review*, Volume 1. <<http://muse.jhu.edu/login?uri=/journals/asr/v001/1.1presbey.html>> Read on 12.3.2010.
- Gascoigne, Bamber, 2001. *History of African Art. History World*. <<http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=aa39#ixzzogiry5q4T>> Read on 27.2.2010.
- Hartwig, Gerald W, 1978. *Sculpture in East Africa. African Arts*, Vol. 11, No. 4, July 1978, 62-65, 96. <<http://www.jstor.org/pss/3335347>>Read on 22.2.2010.
- Indigo Arts Gallery, LLC, 1998-2008. *Mbuti Pygmy Bark-Cloth from the Congo*. <http://www.indigoarts.com/gallery_africanart_textl7.html> Read on 15.2.2010.
- Jirousek, Charlotte, 1995. *Art, Design and Visual thinking*. <<http://char.txa.cornell.edu>> Read on 20.3.2010.
- Ken Rohrer, 2010. *Color Symbolism*. <<http://www.princetonol.com/groups/iad/lessons/middle/color2.htm>> Read on 4.5.2010.
- Khaminwa, Muhonjia, 2008. *Clothing in Africa*. <http://www.africastyles.com/blackhistory/history_clothing.html> Read on 24.2. 2010.
- Krutak, Lars, 2008. *Scarification and tattooing in Benin: The Bétamarribé tribe of atakora mountains*. <<http://www.larskrutak.com/articles/Benin/index.html>> Read on 18.9. 2010
- Lamb, Annette & Johnson, Larry, 2002. *The Topic: Weaving*. <<http://42explore.com/weave.htm>> Read on 19.3.2010.
- MacDougall, Andy, 1999. *Chapter 5—Inks. MacDougall Screen Printing Ltd.* <<http://www.worldprintmakers.com/english/andymac/chapters.htm>> Read on 16.2.2010.
- Manning, Barbara, 2001. *Commercial printing process*. <http://www.tokyopc.org/meetings/2001/11/offset_printing_barbara.ppt> Read on 20.5.2010.
- Michaels, Andrew R, 2010 *The Five Characteristics of a Good Poster*. Ezine articles. <<http://ezinearticles.com/?The-Five-Characteristics-of-a-Good-Poster&id=1312836>>Printed on 11.02.2010.
- Mosaics in the ancient world, 2008. *The joy of shards Mosaic resource*. <<http://www.thejoyofshards.co.uk/history/index.shtml>> Read on 14.2.2010.
- Nance, James J. 2009. *Types of sculptures. Abraham Lincoln art gallery*. <<http://www.abrahamlincolnartgallery.com/essaytypesofsculpture.htm>>Read on 25.3.2010.
- National Gardening Association, 2003. *Dyeing to find out, Extracting Nature's Colours*. Last updated 2003. <<http://www.kidsgardening.com/growingideas/PROJECTS/may03/pg1.pdf>> Read on 2.5.2010.
- Powell, Chris Pottery, 2010. *Creative process*. <http://cpowellpottery.com/catalog/creative_process.php?osCsid=7c484a8b66c892d01055a6f6acfba49e> Read on 30.3. 2010.
- Prussin Labelle, (1997) *African Nomadic Architecture: Space, Place, and Gender*, USA: Smithsonian Institution Press.

- Prust, Z.A. 2010. *Graphic communications, Design and Layout*. The Goodheart-Willcox Co. Inc. <http://www.g-w.com/PDF/SampChap/56637_9847_CH05.pdf> Read on 5.5.2010.
- Rogers, Leonard. R (2011). <*In Encyclopædia Britannica*. Retrieved from <http://www.britannica.com/EBchecked/topic/530179/sculpture>>Read on 12.3. 2010
- Routio, Pentti, 2007. *Early theories of beauty*. <<http://www2.uiah.fi/projects/metodi/>> Read on 09.03.2010.
- Seay Martin (2010). *New Strategies for Invisibility* <<http://martinseay.wordpress.com/2010/08/25/norman-rockwell-the-movie/>> Read on 08.12.2010.
- Tinkler, Michael. C 1911. *Mosaics. The New advent, THE CATHOLIC ENCYCLOPEDIA*. <<http://www.newadvent.org/cathen/10584a.htm>> Read on 17.3.2010.
- University College London, UCL Department of Earth Sciences, 1999-2005. *Clays & Clay Minerals*. <<http://www.es.ucl.ac.uk/schools/UCL/clays.htm>> Read on 29.03.2010.
- Zucker, Monte, 2010. *Photographing People of Color. New York Institute of Photography*. <<http://www.nyip.com/ezone/people-and-pets/peopleofcolor.html#ixzzoh1OnQRuS>> Read on 2.3.2010.
- ## Other references
- "Exploitation." (Oct 1985) *ThirdWay*, Vol. 8, Magazine
- Braxton, Anthony (2007). *The African Aesthetic in World Creativity, Journal of Black Studies*, USA: SAGE Publications Ltd. 2007, VOL 38; NUMB 2, pages 130-141
- Burgess, Lesley & Nicholas Addison (2007). *Learning to Teach Art and Design in the Secondary School: A Companion to School Experience (Learning to Teach Subjects in the Secondary School Series)*, New York: Routledge, Taylor & Francis Group (Paperback)
- Craats, Rennay (2004). *Maasai*. Weigl Publishers (Library Binding)
- Gilmurray, Bob (2010). *The Media Student's Guide to Radio Production*. lulu.com
- Gray, Richard (1975). *The Cambridge history of Africa. From c.1600 to c.1790*, Volume 4: Great Britain.
- Jacqueline, Chanda, *Microsoft® Encarta® 2006. © 1993-2005 Microsoft Corporation*. CD Version
- Janis Grossman, Harriet & Rudi Blesh (1967). *Collage. Personalities, Concepts and Techniques*, Chilton/Haynes. (Hardcover)
- Jegede, Dele (2002). *This is African Art? Now You Confuse Me*, USA: Terre Haute, Indiana State University.
- Keyyune, George (2003). *Art in Uganda in the 20th Century*. UK: Department of Art and Archaeology. Phd Dissertation.
- Linderman, Marlene M (1984). *Art in the elementary school: drawing, painting, and creating for the classroom*. William C Brown Publishers
- Macmillan Essentials Dictionary for learners of English, CD version, 2003.
- Mujjuzi, Henry (2009). *An Exploration of Organic Materials for Sculpture Production*. MA Thesis, Makerere University.
- Mutungi, Emmanuel. Sculptor, *Interviewed on 10.12. 2009*. Phd candidate. Fine Art, Makerere University.
- Nakazibwe, Venny M. (2005) *Bark-cloth of the Baganda people of Southern Uganda: a record of continuity and change from the late eighteenth century to the early twenty-first century*. Phd thesis, Middlesex University.
- Posnansky, Merrick (1961). *Pottery Types from Archaeological Sites in East Africa—The Journal of African History*, Vol. 2. UK: Cambridge University Press.
- Ssegantebuka, Julius (2003). *Art and Design, A complete manual of instruction with a hundred questions in papers (610/1-5)*. Achiever's world Limited. Uganda.
- Stairs, David (2002). *Okuwangaala: The Persistent Vitality of the Vernacular. From: Bruce Brown, Richard Buchanan, Dennis P. Doordan and Victor Margoli. Design Issues*, Volume 18, Issue 3: USA, MIT Press Journal.
- The New Encyclopaedia Britannica (2003), Vol. 27; Sculpture, pages 46.
- Uganda National Examinations Board (2008). *Uganda Advanced Certificate of Education, Regulations and Syllabuses 2009-2013*.

Art and Design: A Comprehensive Guide for Creative Artists is a textbook carefully written to guide and equip learners with art and design knowledge and skills through training, schoolwork and practice—consideration of the following aims:

- Providing scholarly academic guidance and instructions associated with creating awareness of local community needs through art and design.
- Art education is an important carrier of creative talent. Thus, the book gives learners a chance to carry on with art knowledge and skills in the time of school and out side school.
- It contains necessary suggestions of teaching art and design—identify sources of inspiration from nature, inventiveness and experimentation.
- Also, this book is compiled with theories of teaching art and design in secondary schools, and art colleges.
- Ultimately, a lot of consultations about useful academic comprehension have been referred to as a way of stretching for essential knowledge for integrated art education.