TVET CERTIFICATE IV in SCULPTURE and CERAMICS

MAKING CERAMIC MASK AND ANIMALS

CSCCM401

Make ceramic mask and animals

Competence

REQF Level: 4

Credits:4

Learning hours: 40

Sector: Art and Craft

Sub-sector: Sculpture and Ceramics

Module Note Issue date: June, 2020

Purpose statement

This module describes the skills, knowledge and attitudes required to be able to create different ceramic artworks models, to prepare raw materials and tools, execute ceramic mask and animals mean that he/ she will be able to make all kinds of mask and animals in all techniques used in ceramic.

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Learning Unit 1 – Create different ceramic artwork models

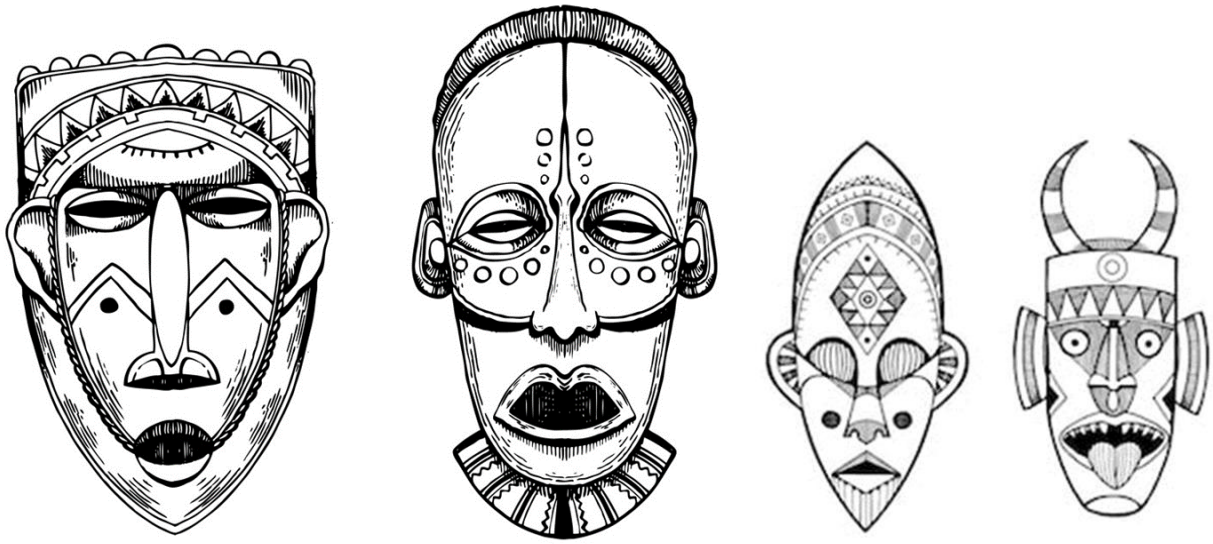
LO 1.1 – Compose ceramic artwork models

- Topic 1: Draw by freehand mask and animals

A **sketch** (freehand) is a rapidly executed freehand drawing that is not usually intended as a finished work. A sketch may serve a number of purposes: it might record something that the artist sees, it might record or develop an idea for later use or it might be used as a quick way of graphically demonstrating an image, idea or principle.

Sketches can be made in any drawing medium. The term is most often applied to graphic work executed in a dry medium such as silverpoint, graphite, pencil, charcoal or pastel. It may also apply to drawings executed in pen and ink, digital input such as a digital pen, ballpoint pen, marker pen, water color and oil paint. The latter two are generally referred to as "water color sketches" and "oil sketches". A sculptor might model three-dimensional sketches in clay, plasticine or wax.

Examples of freehand African mask

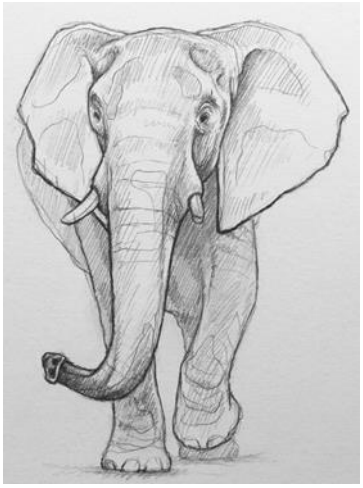


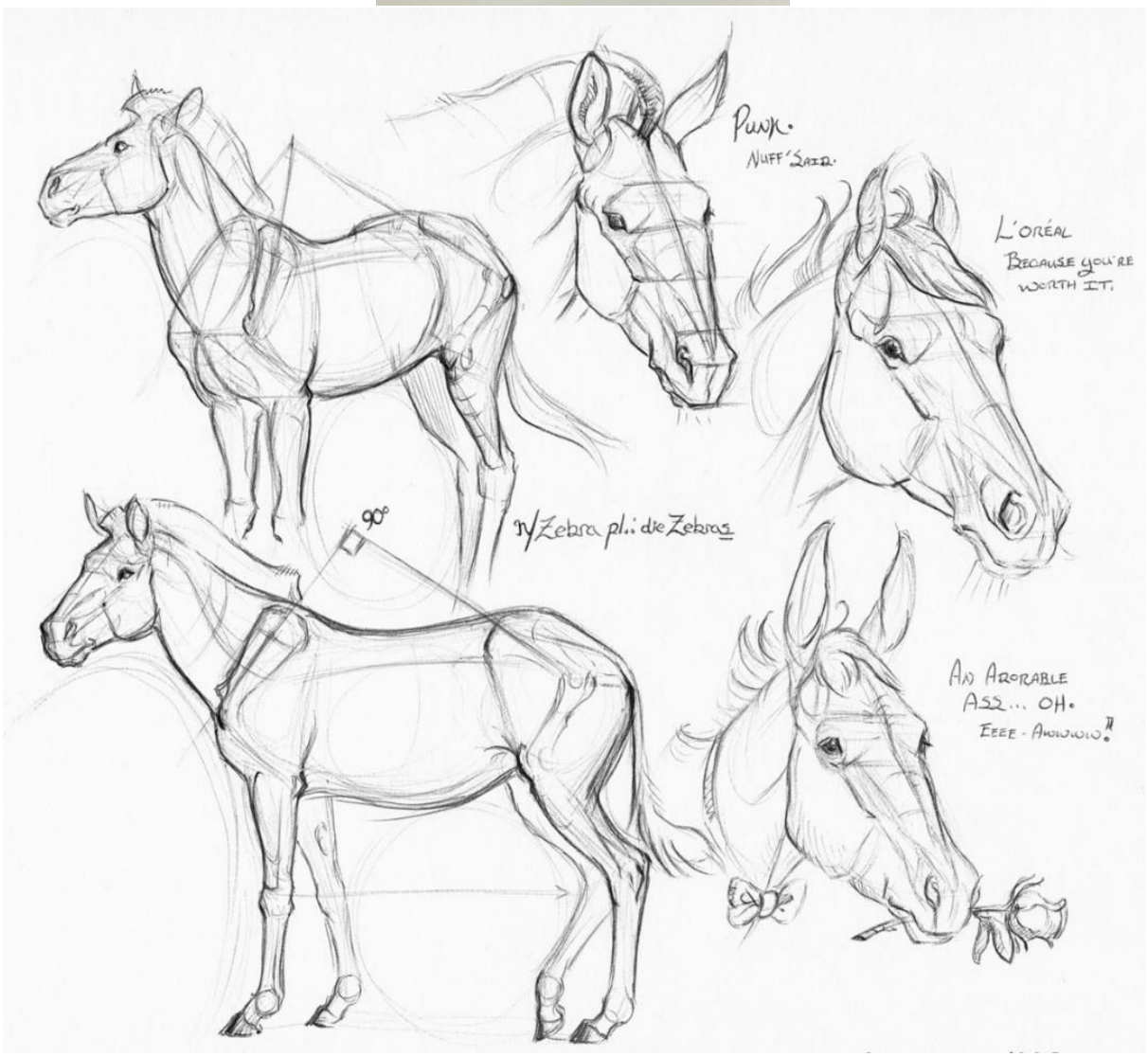
❖ **Characteristics masks**

1. The design are a symmetrical.
2. Include patterns the zigzag lines flanking the face signify the "path of the ancestors."
3. The checkerboard pattern represents ignorance and knowledge, dark and light.
4. Enlarged facial features
5. The mask honors the spirit of the hawk in order to obtain its protection and blessings. Each mask has meaning to be used in a ceremony or dance
6. Patterns. Symmetrical design. Enlarged facial feature. Meaning of mask

There are many different animal classes and every animal in the world belongs to one of them. The five most well-known classes of vertebrates (animals with backbones) are mammals, birds, fish, reptiles, amphibians.

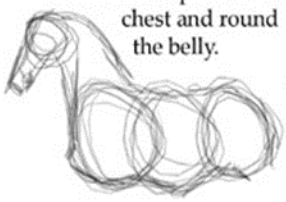
Examples of mammal's sketch



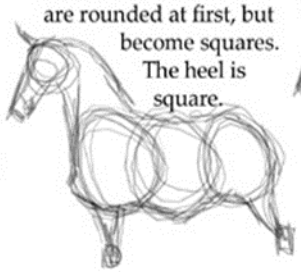


1. Envision your pose and draw three corresponding circles.

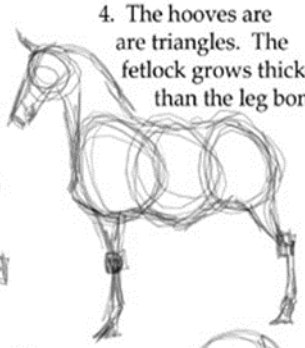
2. Block in head, neck, throatlatch. Square the chest and round the belly.



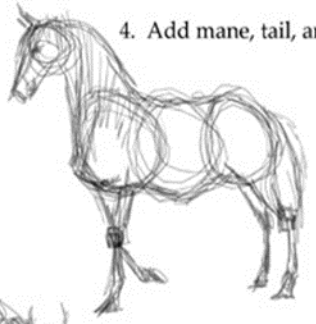
3. Add ears. The knees are rounded at first, but become squares. The heel is square.



4. The hooves are are triangles. The fetlock grows thicker than the leg bone.



4. Add mane, tail, and touches of realism.



The chin has a bump of flesh.

Align the ears with a circle.

3 circles can command any pose.

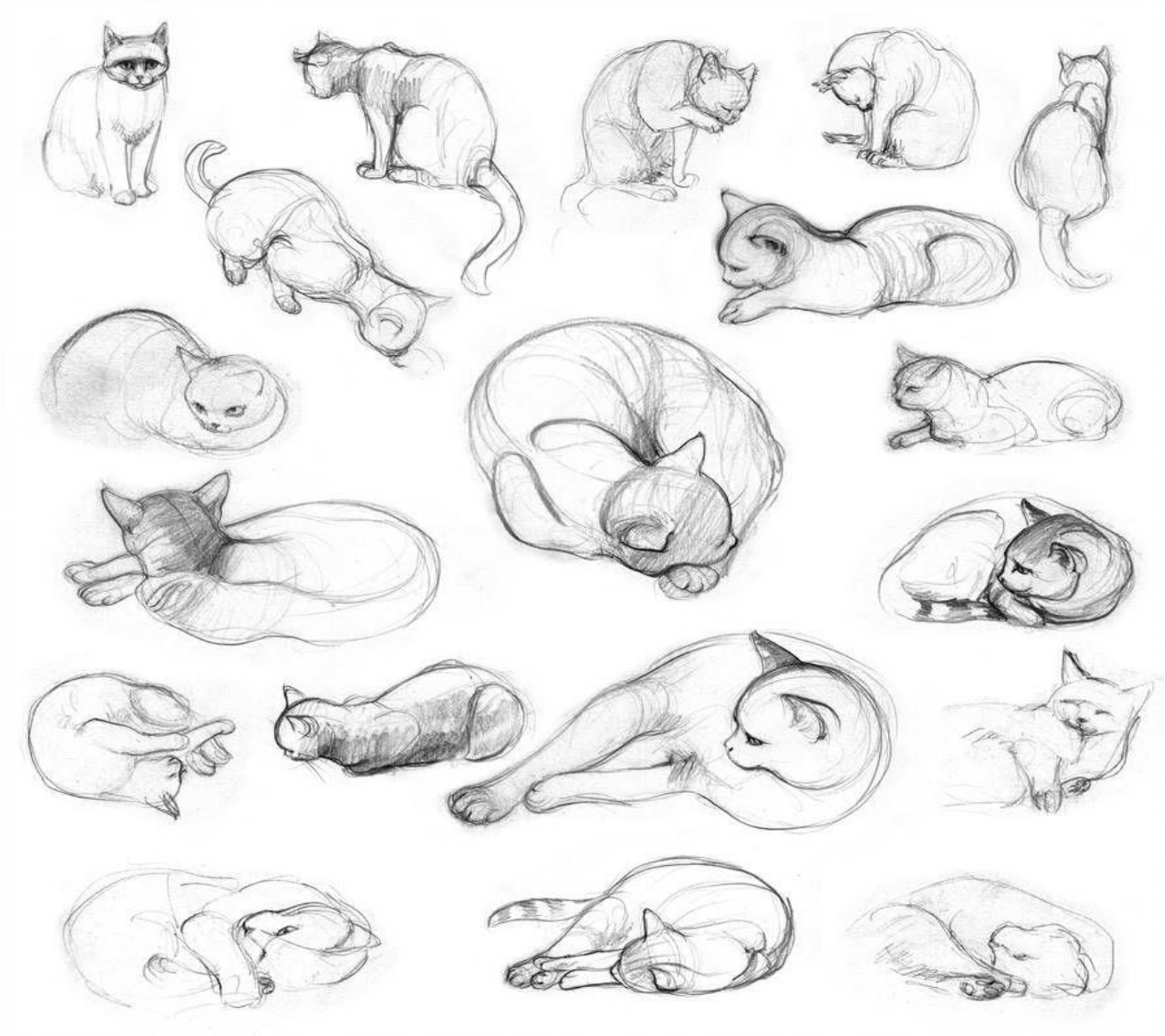
Eyes are on the side of the head.

A huge vein runs under the jaw.

Hoof shape.

Rough muscle groups to keep in mind.

There are many different body types and breeds, but the 3 circle concept still stands.



- Topic 2: Types of animals and masks

✓ Wild animals

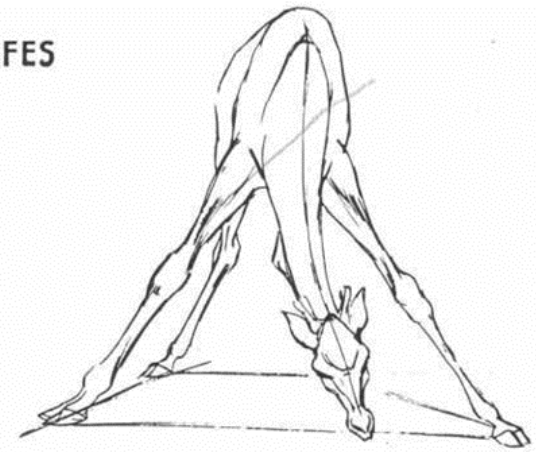
A wild animal is an animal that is, well, wild. This means that it isn't tame and it lives on its own without any help from people. A wild animal finds its own food, shelter, water and all its other needs in a specific natural habitat.

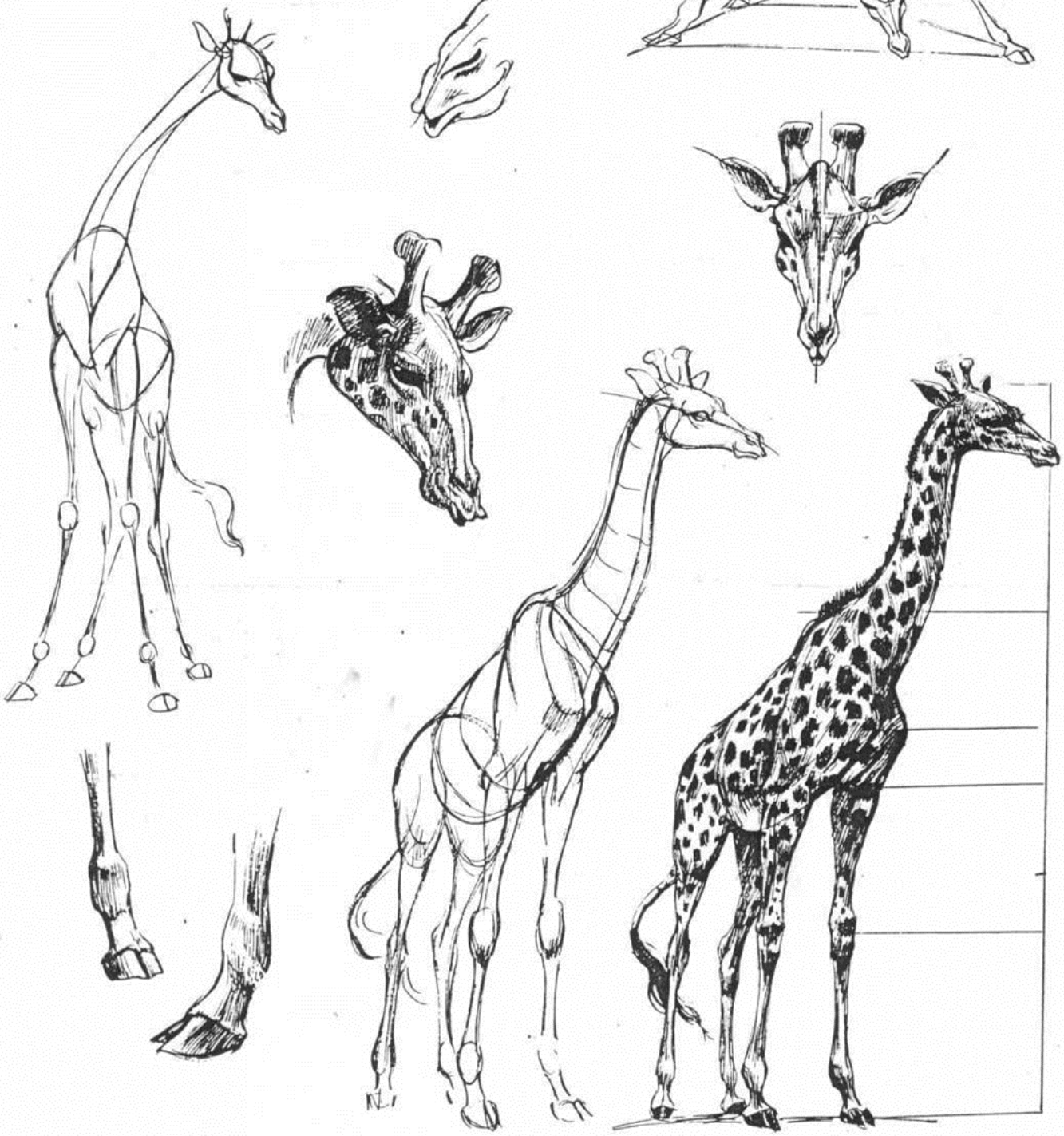
For examples of wild animals

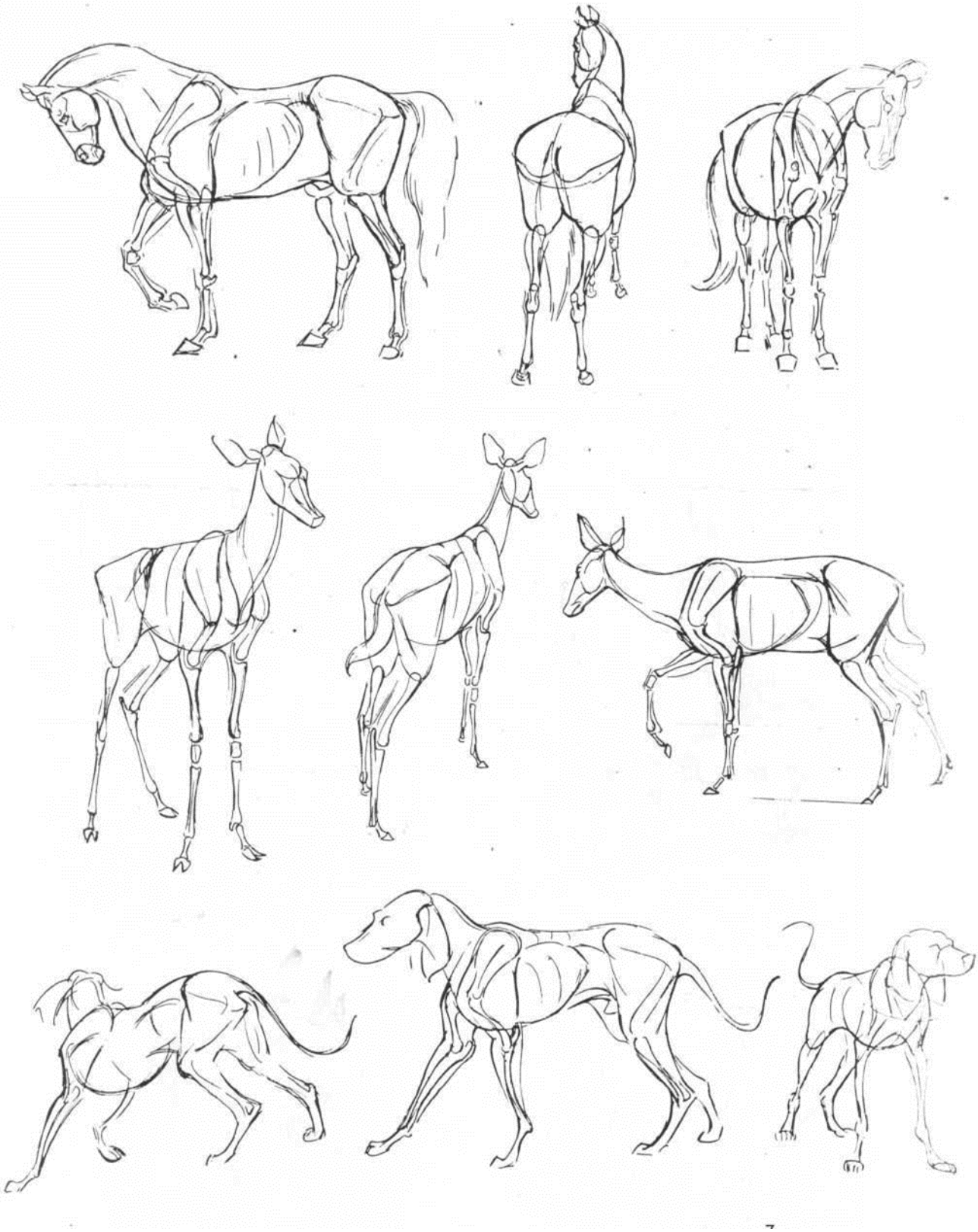
- Bats
- Bear
- Rhinoceros
- Lion
- Gorilla
- Tiger
- Snake
- Raccoon

GIRAFFES

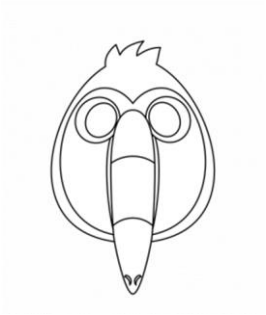
The giraffe is very angular animal, with a wide jaw and a pointed, V-shaped nose. The upper lip is split, and the eyes protrude somewhat from the side of the head. The hindquarter section is set low, in contrast to the high withers.

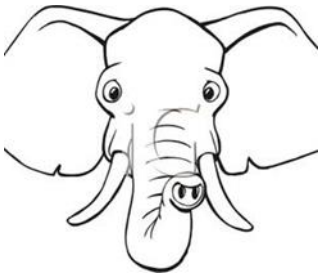


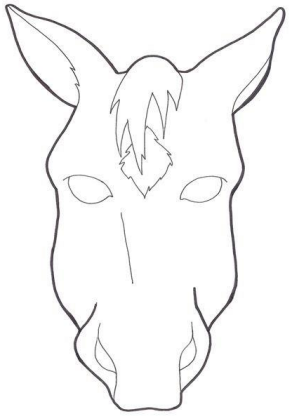


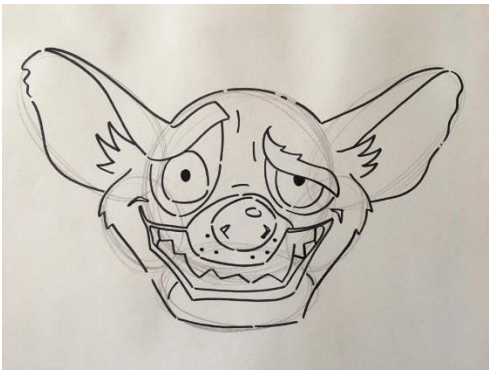


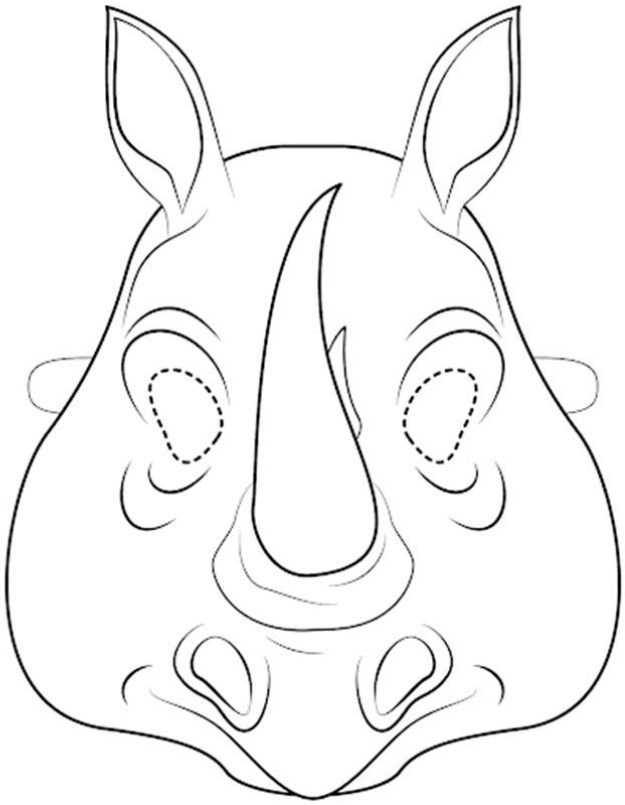
Masks

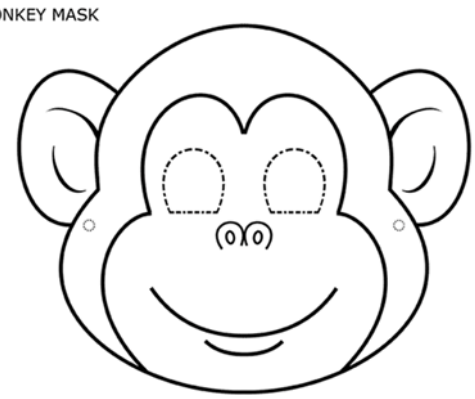










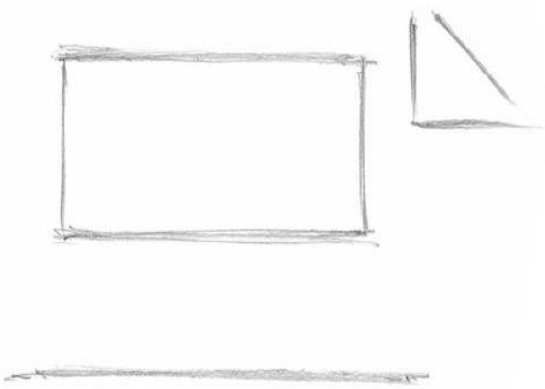


- ✓ Domestic animals

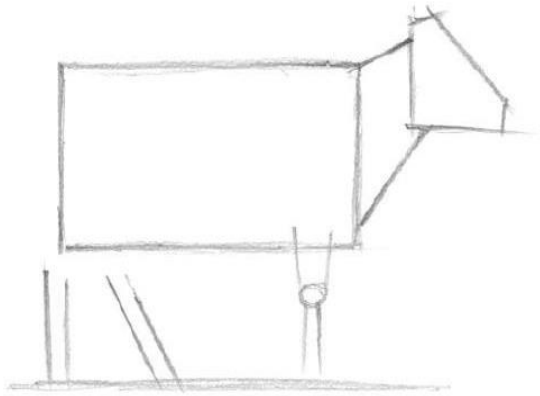
Domestic animals, also including a list of animals which are or may be currently undergoing the process of domestication and animals that have an extensive relationship with humans beyond simple predation. This includes species which are semi-domesticated, undomesticated but captive-bred on a commercial scale, or commonly wild-caught, at least occasionally captive-bred, and tame able.

In order to be considered fully domesticated, most species have undergone significant genetic, behavior a land morphological changes from their wild ancestors, while others have changed very little from their wild ancestors despite hundreds or thousands of years of potential selective breeding. A number of factors determine how quickly any changes may occur in a species, but there is not always a desire to improve a species from its wild form. Domestication is a gradual process, so there is no precise moment in the history of a given species when it can be considered to have become fully domesticated

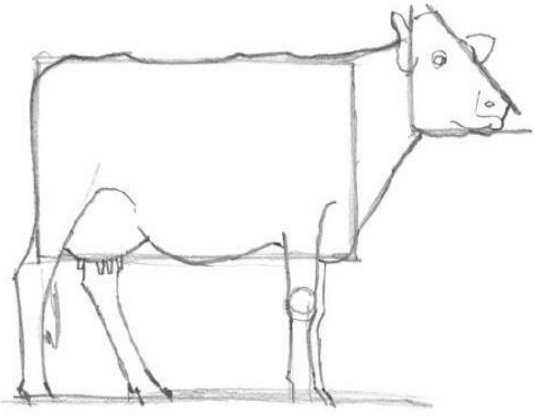
Examples of domestic animals



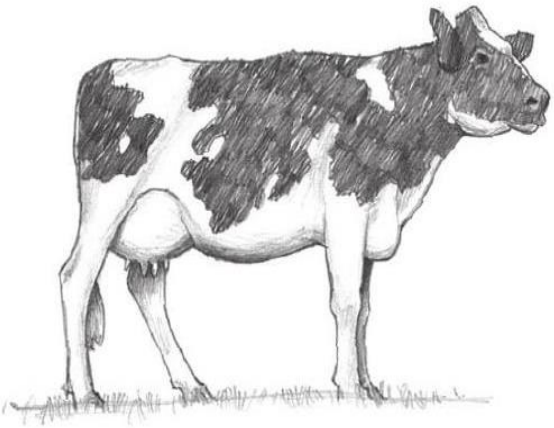
1 **Sketch the Basic Shapes**
Sketch the basic shapes: a rectangle for the body and a triangle for the head. Add a baseline to establish the length of the legs.



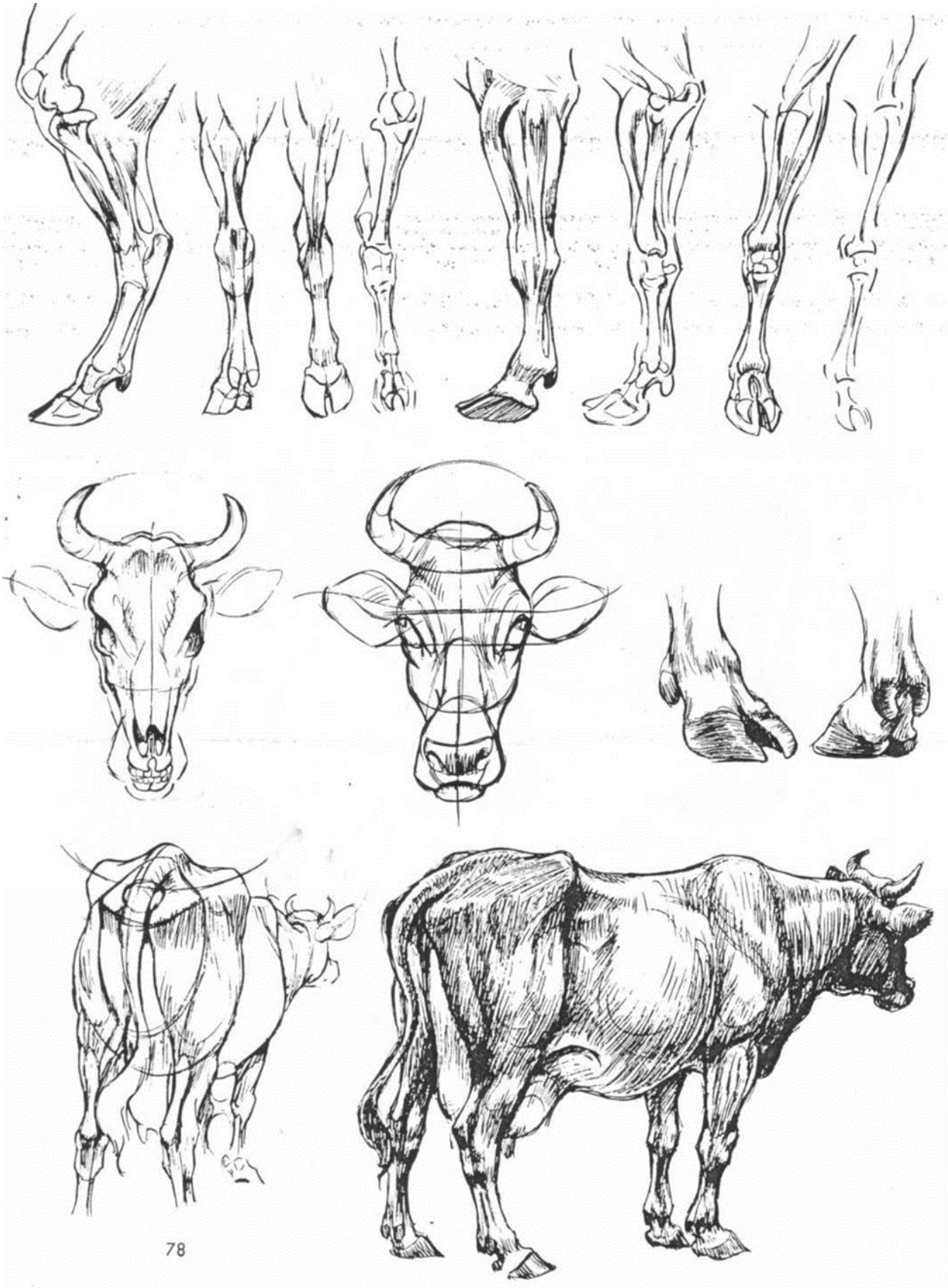
2 **Indicate the Neck and Legs**
Add lines for the neck and legs. Pay attention to the placement and angles of these lines. Use a small circle to indicate the joint of the front knee.



3 **Refine the Lines**
Refine the line work to further shape the cow's body. Add the eye, ears, tail and udders.



4 **Add Shading and Finishing Details**
Erase any extra lines. Add light shading to imply form, using darker shading in the more shadowed places. Make the coat's dark patches with semi-uniform back-and-forth pencil strokes.



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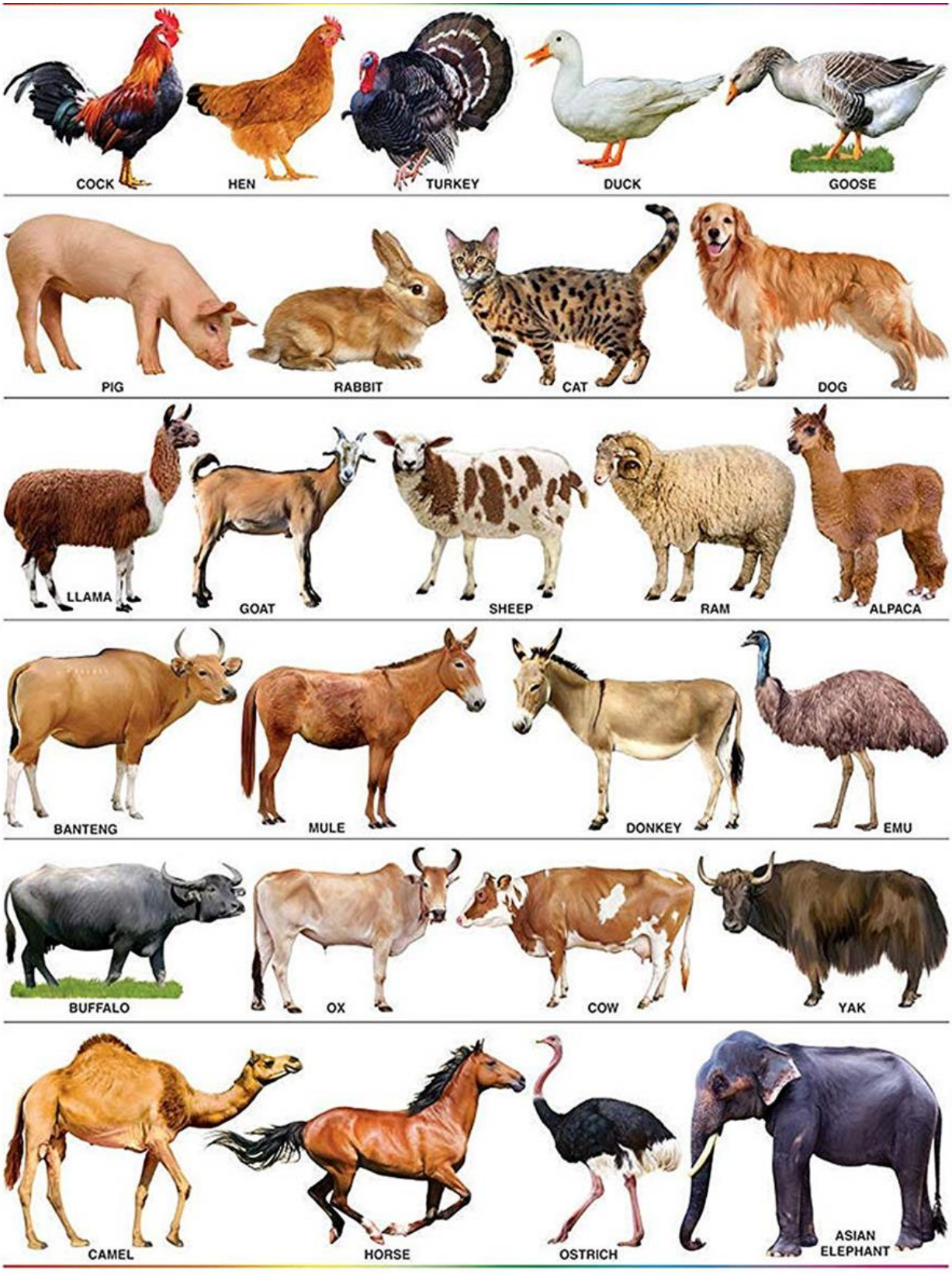
COCK
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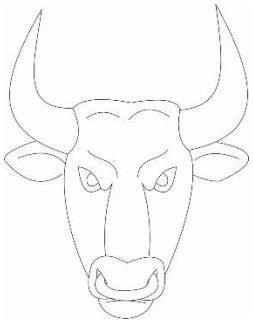
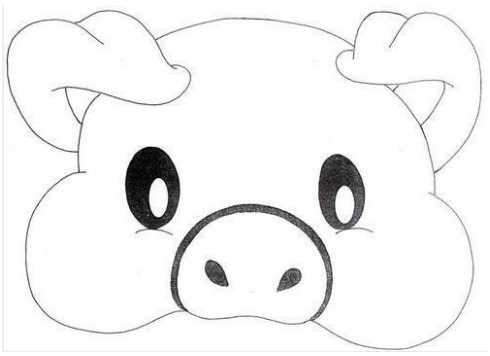
Masks

- Topic 3: General methods of drawing

✓ Observation

Observational art is easily defined as drawing or painting from life. Examples would include sketching a bowl of fruit (still life), drawing from a model (figurative), or drawing a street scene (landscape). The image is not taken from either a photograph or the artist' imagination, but from real life observation.

❖ **The important of observation in art**

Though not every artist uses direct observation as means to create perfectly realistic representations of what it is he/she is seeing, this method is able to bring a level of energy and originality to art that simply cannot be achieved when using a photograph as reference.

✓ Imagination

1. Creativity: The ability to produce an idea in a novel or new way. The expression of novel (new) approaches in stories and problem solving, or visual presentations.

2. Imagination: The ability to see objects, objectives and interest in things not readily seen or observed.

3. Expression: The actual act of producing a product from the combination of the above two.

✓ Imitation

Imitation is the doctrine of artistic creativity according to which the creative process should be based on the close **imitation** of the masterpieces of the preceding authors.

➢ The basic technique of drawing

Back and forth: When we say *basic*, this what we're talking about. This approach challenges you to move your drawing utensil back and forth across the paper in an even, level motion. Depending on how much pressure you apply, the darker your drawing will appear.

Hatching: Hatching involves making tiny ticks on your page. Make sure that each mark is parallel to the other. Lines that are close together will look darker, while lines further apart will indicate highlights.

Cross Hatching: This technique is the logical extension to hatching. But instead of creating a series of parallel lines, have your marks intersect one another in a cross-like formation.

Scribble: Scribbling allows your hand the opportunity to fly across the page. Move your pencil in a random formation—no precise marks necessary. The more you scrawl all over an area, the darker it will look.

LO 1.2- Apply principles of ceramic artwork models

- Topic 1: Principles of drawing

The principles of Arts

The principles of draw sculpture monument models are the rules by which an artist uses the elements of design or art. The most often used principles in visual art are: **balance, emphasis, movement, variety, proportion and unity.** These principles may very slightly according to the person using them.

1. Balance

Balance is the arrangement of lines, colors, values, textures, forms, and space. There are three types of balance: formal or symmetrical or informal or asymmetrical and radial balance. Formal or symmetrical balance has equal weight on both sides. Informal or asymmetrical balance has a different weight on each side to maintain balance. Radial balance is a circular balance moving out from a central object to maintain balance.

2. Emphasis

Emphasis is way of bring a dominance and subordination into a design or painting. Major objects, shapes, or colors may dominate a picture by taking up more space or by being heavier in volume or by being darker in color than the subordinate objects, shapes and colors. There must be balance between the dominant and subordinate elements.

3. Movement

The use of lines colors, values, textures, forms and space to carry or direct the eye of the viewer from one part of the design or picture to other is called movement. Movement is created in art by the way the artist uses the elements of design. Movement is generally created by the arrangement of shapes.

4. Variety and contrast

An artist uses elements of art to create diversity and differences in design. Contrasting colors, textures, and patterns all add interest to the artwork. Highlights of color to the corners or edges of some shapes may be used to add contrast.

5. Proportion

The size of one part of artwork to its other parts is called proportion. Artists use proportion to show emphasis, distance and use of space, and balance.

6. Unity

Unity is the result of how all element and principles work together. All parts must have some relation to each.

7. Rhythms

A principle of design or art that indicates movement, created by the careful placement of repeated elements in a work of art to cause a visual tempo or beat.

- Why the principles of art are important?

Whenever you create an image, there will be elements throughout it. There will be shapes, there will be color, and there will most likely be a theme, and that's all great, but you can't have an amazing picture until you balance your image out.

There are certain ways to balance your image. You may want to balance your image **symmetrically**, or **asymmetrically**.

Symmetrical balance is when an object on one side of your image is balanced equally with an object(s) on the other side of the image. You can visualize it like a see-saw with your objects on either side. Symmetrical balance will hold the see-saw level, because the density of objects on both sides of your image are equal.

Asymmetrical balance is when you intentionally avoid balance in a visually appealing way through using the design rules. Using asymmetrical balance can bring different emotions to your image by placing objects and colors in specific places. Negative space can also be used to balance objects in the image.

The principles of design are made up of various mixes of the elements of design all put together in one picture, making the picture look better. When more than one principle is used together an artist can create artwork that will amaze people and get good publicity, hopefully benefiting the artist who made them.

When you as an artist create artwork the principles of design become very important to it. They are the devices that you need to use and will unknowingly use, since they make your images look nicer and become more visually appealing to people who are looking at your work.

The principles that you can use to make your image stand out and catch other people's eyes are ones like contrast, center of interest, repetition and rhythm, while ones that help make your image more visually appealing are ones like harmony, direction of movement, and balance.

Visual design is complex subject; however, there are some basic principles that lie at the core of visual design. These principles are key in creating an effectively designed piece of artwork. The most common design principles are unity, emphasis, contrast, movement, pattern, rhythm, and balance.

Unity is the way each part of an image blend together to create the finished piece; a good way out creating unity is using colors of a similar temperature, different shades red and similar colors like orange or yellow.

Emphasis, which is sometimes called dominance or point of focus, is used to make a certain elements of an image stand out from the rest of the image and become dominant within the image meaning it will usually be the first thing that a viewer will notice. A very common way of creating emphasis is the use of contrast; differences in color and tone that emphasize an element.

Movement consists of implications of motion and guides the viewer's eyes along a specific path to create a semblance of a captured instant of motion.

Rhythm and patterns are similar principles that rely on the repetition of shapes, lines, or colors

Balance relies on the positioning of elements inside an image to end with an equal concentration of elements on each side of the image

These principles are the foundation of successful artwork; some are easier to grasp than others but with time and practice you can learn to recognize and use them to create some really great art.

LO1.3 - Apply elements of ceramic artwork models

- Topic 1: Elements of art and their applications

Elements of arts

Color, values, forms and shapes, space lines, and textures are called the elements of design. These elements are known as the fundamentals for all works of art. Without these elements of art could not be created. All of these elements exist in the world around us in nature and in the environments we create for ourselves.

1. Color and value

Color exist in all things in 1704 sir Isaac newton discovered the all the colors the rainbow exists in light. The three primary colors are red, yellow and blue and the three secondary colors are orange, green and violet. Black is the sum of all of these colors. All of the intermediate colors can produced by mixing a primary and secondary color together

2. Value of color

The value of color is lightness and darkness. Colors are made lighter and darker by adding either black or white. A color plus white is called a tint. A color plus is a shade. A color plus gray is called a tone. In both cases the darker color is added to the lighter color. The particular quality of color tint, tone, or shade is called a hue.

3. Form shape

A form is the three dimensional feel and look of an object. A shape looks flat and two dimensional. All objects have shape or form. Shapes and forms are both geometric. Geometric shapes such as triangles, squares, circles have no volume and are two dimensional. Geometric forms have volume a word that describes the weight density and thickness of an object.

4. Space

Space is the void between solid objects and shapes. It is everywhere and all around us. Everything takes up space in one form or another whether it's two dimensional like drawing and painting, three dimensional like sculpture and architecture.

5. Line

Lines define and enclosed space. In drawing and painting a line represents many things such as and actual line, a person or a building. A line can be thick or thin, wavy, curved, or angular: continuous or a broken, dotted dashed, or a combination of any of these.

6. Texture

Texture is general characteristic for a substance or a material. Texture exist all around us. It can be natural, invented, or manufactured. It can also be simulated or made to look and or feel rough, smooth, hard, or

soft natural or artificial. Simulated textures such as a rough stone wall or a fluffy cloud are made to look and feel like real texture.

- **The purpose of principles and elements of art**

The elements and principles of art and design are the foundation of the language we use to talk about art. The **elements of art** are the visual tools that the artist uses to create a composition. These are line, shape, color, value, form, texture, and space.

The **principles of art** represent *how the artist uses the elements of art* to create an effect and to help convey the artist's intent. The principles of art and design are balance, contrast, emphasis, movement, pattern, rhythm, and unity/variety. The use of these principles can help determine whether a painting is successful, and whether or not the painting is finished.

The artist decides what principles of art he or she wants to use in a painting. While an artist might not use all the principles of design in one piece, the principles are intertwined and the use of one will often depend on another. For example, when creating emphasis, the artist might also be using contrast or vice versa. It is generally agreed that a successful painting is unified, while also having some **variety** created by areas of **contrast** and **emphasis**; is visual balanced and moves the viewer's eye around the composition. Thus it is that one principle of art can influence the effect and impact of another.

Learning Unit 2- Prepare raw materials and tools

LO2.1- Identify clay and tools

- Topic 1: Clay classification

✓ Kaolin clay

Kaolin, also called **china clay**, soft white clay that is an essential ingredient in the manufacture of china and porcelain and is widely used in the making of paper, rubber, paint, and many other products. Kaolin is named after the hill in China (Kao-ling) from which it was mined for centuries. Characteristics of clay, very little, very fireproof, smooth on touch and white when they are purified.

There are of three kinds: -Clay kaolin, rich in kaolinite

-Stone kaolin, having a big quantity of rough fragments

- Sand kaolin, it has no cohesion with minerals.

✓ Refractory clay

Refractory clay or Fire clay is a range of refractory clays used in the manufacture of ceramics, especially fire brick. The United States Environmental Protection Agency defines fire clay very generally as a "mineral aggregate composed of hydrous silicates of aluminum ($Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$) with or without free silica.

❖ **Classification of refractory materials**

1. Acidic refractories consist of acidic materials like alumina (Al_2O_3), and silica (SiO_2). They are impervious to acidic materials, but easily attacked by basic materials. Important members of this group are alumina, silica, and fireclay refractories.

2. Basic refractories consist of basic materials such as CaO, MgO, etc. These are impervious to basic materials, but easily attacked by acidic materials. Important members of this group are magnesite and dolomite refractories.

3. Neutral refractories are made from weakly acid/basic materials such as carbon, silicon carbide (SiC), chromite ($FeCr_2O_4$) and zirconia (ZrO_2).

- ✓ Glassful clay

Contain more melting oxides than kaolin and the refractory clays. They become impermeable between 1200^0C and 1300^0C. They contain much silica and much iron. They are clays of grant.

- ✓ Fusible clay

They are less pure than the other kinds of clays. They are classified into siliceous, ferruginous and calcareous.

Topic 2: Identification of ceramic tools

Potters Needles

Potters needles are very long and a little on the heavy side. They are used to trim the top of your pottery ware while it is on the wheel. The needles are also used for scoring slabs of clay.

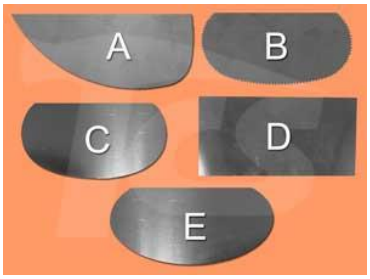
Cut-Off Wires

Cut-off wires have a wooden handle on each end and is used to cut large clumps of clay. The wire also helps to remove any excess clay that remains on the wheel.

Scrappers and Ribs

These two tools are excellent for smoothing pottery ware and shaping them while they are on the wheel.





Fettling Knives

This particular style of knife is used to cut slabs of clay or to remove the fettle of your pottery ware. The fettle is the small ridge of material that is left where the pieces of the mold join together.



Ribbon Tools

Ribbon tools are great from trimming any green-ware and to help in hand-building your pottery. Although these tools work great for trimming, they are to fragile to be used during the throwing process.



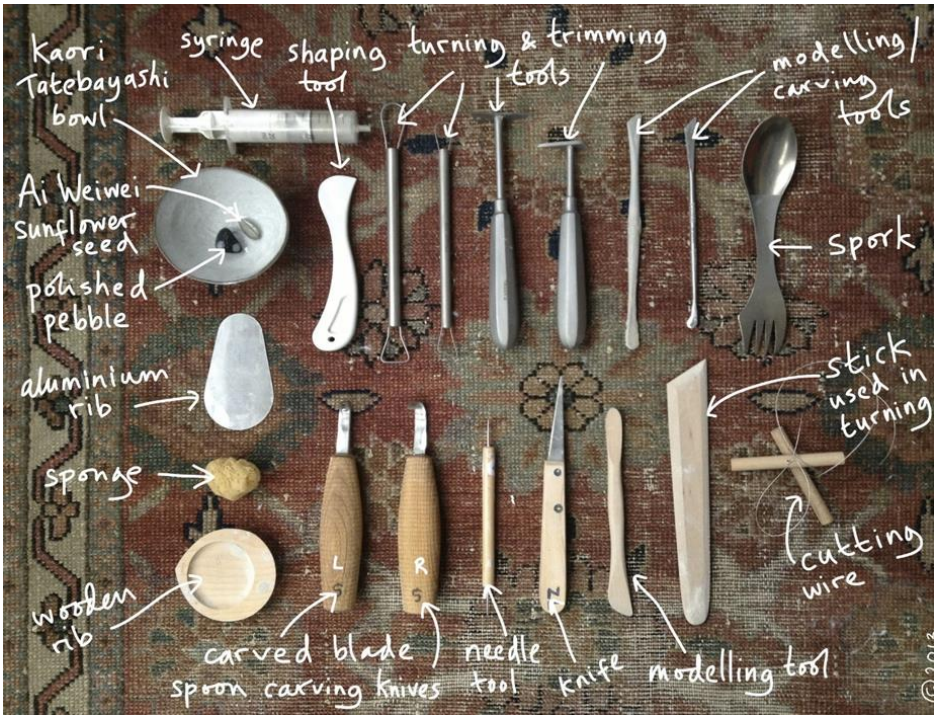
Wooden Modeling Tools

These particular tools are also ideal for any hand-building projects. They also work great for any trimming that needs to be done.


- ✓ Knives

This particular style of knife is used to cut slabs of clay or to remove the fettle of your pottery ware. The fettle is the small ridge of material that is left where the pieces of the mold join together

✓ Ceramic tools kits



2.2 Proper removal of clay impurities according to the standards

- Topic 1: Types of clay impurities

✓ Organic impurities

Organic impurities may impair the setting properties of concrete. A simple test gives the content of organic matter in the sand and plants. This test should be performed regularly, particularly if the extraction site is changed during a production run.

✓ Inorganic impurities

Impurities are chemical substances inside a confined amount of liquid, gas, or solid, which different from the chemical composition of the material or compound. Impurities are either naturally occurring or added during synthesis of a chemical or commercial product.

- Pieces of glass
- Pieces of metal
- Stone

- Topic 2: Techniques of removing impurities

✓ Manual and Mechanical removing impurities

Self-dug clay variation

If you dig clay yourself, it often has impurities that need to be removed. Most kids love to help with this and there are few better learning experiences. If you are a teacher, invite students to bring in samples for testing. If it works well, ask them to bring more.

1. Let the clay become totally dry.
2. Slake it as described in 3 above.
3. When it is all soft and mushy, stir it until it is a slip. I use a mixer on an electric drill or a blunder. Add water if needed to liquefy it.
4. Pour the slip through ordinary window screen available at any building supply store.
5. The screening removes stones, roots, and other trash that causes trouble. The chief culprit is limestone. Limestone, like plaster, pieces cause pots to break after firing.
6. When the clay has settled and turned to mush, remove extra water from top. Dip water off or siphon it off.
7. Spread the mush a few inches thick on clean dry porous surfaces. I use, dry plaster, clean concrete, canvas, denim, etc. Smooth the top to avoid getting small dry pieces on the surface.
8. If you want it to dry faster, use a fan and/or set it all on a wire rack to allow air under it.
9. When it is nearly dry enough, I make coils as thick as my arm and set them around like big arches (a foot tall) and they are ready to wedge and use in 24 hours or less. This clay can be stored forever in an airtight plastic.
   In ancient China, potters stored moist clay in caves for the next generation to improve the plasticity of the clay. If it is to be stored long-term, double wrap it. Double wrapping in plastic bags from the supermarket works. Students can bring in hundreds of these.

Impurities - Most common clay contains impurities, often in the form of iron oxide, sand, roots, and other debris. Troublesome impurities can be removed by making a thin slip. The sand settles to the bottom first. Allow the sand to settle a short time. Then decant the clay water (the good slip from the top down to the sand) and discard the sand in the bottom. Allow the clay (slip) to settle and process it as described in the 9 steps above.

Iron impurities are very common and not easily removed. Iron gives it the reddish brown color when fired and causes the clay to melt more easily. It may not work for stoneware, but most common clays are fine for earthenware. Most of it will fire to cone 05 without problems.

Good uses of impure clay - Potters who make high fire stoneware sometimes add small amounts of impure local clay to their clay body to add character and blemishes. I regularly add some common brick clay to add character to my pottery. Color and iron spots look more natural and give a warmer feeling. Stoneware potters also use local clay as a source of glaze material. These "slip glazes" have been used for hundreds of years for lining jugs and traditional crockery.

LO2.3- Mix of clay with other complementary raw materials

- Topic 1: Technique of mixing clay

✓ Manual mixing clay

The artisan preparation of clay does require any complicated process. It is just mixing it with enough quantity of water and clearing it putting out strange matters such as sand, rocks fragments and so on. When it is necessary to mix or more matters in order to make a ceramic paste, and when it is better to sieve the clay so as to put out the impurities it is also better to mix first the clay with excessive quantity of water.

If one wants to make a paste containing both clay and a no plastic material such as silex, it is better to put first clay is in order to let it become wet within a maximum quantity of water. If the clay is in lumps, it will need a contain time and an important movement to break and smash lumps to pieces.

Artisan technique of washing by **levitation** and **clarification**

In the basin A, the mixed clay is left a side for a couple of time, so the heavy matters such as sand lay down at the bottom of the basin and barbotine is poured through a sieve in basin B. In this second basin the liquid is itself clarified again the heaviest matters stay at the bottom and one let go the barbotine in the in the 3rd basin. That barbotine will be loaded with the very small particles.

If sieve barbotine in order to put out granular impurities, it is good to do it when the barbotine is completely brewed and uniform. Two barrels or two containers are used and the barbotine is poured from one to the other making it pass through the sieve. One can more or less fine sieve. For much clay a sieve n^{o} 25 seems enough fine to retain all the undesirable matters.

For the paste with porcelain or the pastes of white products which must be of great purity, the sieve n^{o} 23 is used or even much more fine. The sift retains not only the sand and the rock fragments which can be in the clay, but also the fragments of lignite or of coal

A simple way to put out an important quantity of water consist of letting the barbotine rest. If it is let rest in a tan for many days, the clay lay at the bottom and then one can get out water. Another way to put out accident water is to use the plaster's sheets or the containers of drying. It is better than to exhibit the sheets or containers of plaster at the air. In a place where there is a higher temperature so as to make them dry quickly.

✓ Mechanic mixing clay

The mechanic mixers

Mechanic mixers for clay are of two types:

The kneader: Which is a mixer whose the blades turn quickly keeping the barbotine in the same but regular and smooth movement. Sometimes there are two bladed movements in reverse turn which increases the turbulence.

The mixer with helix: it is itself constituted by a helix which seems like that of boats, turns so quickly and makes the barbotine move violently in a single area of the tub. It functions exactly like the kitchen mixer and it is very fast and very efficient for the clay barbotine's which do not contain very big matters (blocks of clay). If the clay is made of matter (blocks), as it the case when it comes from the quarry, the very slow movement of the kneader is better. In the water, the kneader, without a violent movement, eliminates the matter (blocks) and rough matters after a couple of and gives a perfect mix.

The press-filters and the ventilate kneaders

Due to how they are made, the press-filters can give, with a press cycle, from some kgs to may tones of strengthened pastes. The press-filters gives good results when it is a work on big quantities, especially when it is to work on pastes of different compositions and when it is being necessary to clean the press every times.

For the production at a big scale, the ventilate kneaders known also as the lighten kneaders known also as lighten kneaders or disgazors ones are used for the pastes kneading.

The big air pockets in the paste: Those very small grains of air don't let the particles of the paste to get integrated between them and consequently diminish the cohesion and the plasticity of the paste

The ventilate can alone respond to that default it. It consists of the principle of two mixers separated by an empty chamber which extracts the air that it contains. The first mixer, after having kneaded and homogenized the paste, compress it, making a cap through the small ways of entry the paste get out from there being like fine turds which can be otherwise divided up by a knife turning in front of the ways of entrance. Under the action of the empty place, the winds start to blow and the air in very big quantity is extracted from the paste.

The fragment of disintegrated paste are taken again by the second mixer which goes on with the essential crumbling in the empty chamber and whose the essential final action is to resolve the paste into a homogenous mass by the strong compression of a helix whose the speed decrease generally towards the exist of the mixer.

The ventilate does not bring the quality sensitive improvement as well for all the pastes: some pastes strongly chamotte, for example, would not be a little improved by that treatment, contrary, for some other types of the pastes, the improvement are truly spectacular. In the main of the cases, the ventilation brings the following results.

- Topic 2: Complementary raw materials

✓ Chamotte and skimmers

➢ Chamotte

These are burnt clay or object fragments burnt broken. In order to make inert the chamotte during the burning of object, it is better to burn them at equal or superior burning temperature of products containing that chamotte.

Chamotte is raw material used to prepare clay. It also adds structure strength to hand built and thrown ceramic during shaping although it can diminish fired strength.

Ceramic chamotte are well known for their high quality and consistency, offering, reduced cracked and deformation of large complex ceramic pieces.

The following properties highlight special feature of chamotte

- Controlling particle size distribution of ceramic pieces
- Minimal cristobalite to avoid dusting, cracking and health and safety issues
- Prepared minerals for ceramic raw materials

Chamotte applications by:

- Sanitary ware
- Table ware
- Floor tile
- Fiber glass
- Roof tiles
- Technical ceramic and porcelain

Types of chamotte

- Chamotte very fine
- Grainy chamotte
- Siliceous chamotte

- **Skimmers**

They decrease the plasticity of clay and prevent bad form and breaks during the drying or the burning. It is better to consider their nature, their fineness and their actions.

It is also better to take into account their size (their grains). When the grain are more or less big, they react strongly in the pastes in decreasing the withdrawals and facilitating making thick objects with big size. After burning the pieces get a big elasticity and resist to different shocks. It is the chamotte.

Fusibility is the quality of being fusible or convertible from a solid to a liquid state by heat. Or the degree to which a substance is fusible.

Types of skimmers

- No action on fusibility
- Increase the paste of fusibility
- Decrease the paste fusibility

- ✓ Bones powder and fondant

- Quality of fondants

The feldspars

It is very used in ceramic because of its melting power at high temperatures. In the paste at low temperature, it is used to make the pastes structure. It increases and improves mechanic and chemical resistances at and the different shocks. in the glazes at high temperatures, it is used as the main fondant

minion etc…, in the fried base in order to make standard the fusibility increasing the fusion landing. The feldspar gives a high viscosity within the glaze and allow a good recovery of glazed pieces.

The pure and very important feldspars

- Orthoclase (Pottasic).
- Albite (Sodic)
- Anorthite (Calcareous)
- Spondumen (Lithic)

Cornish-stone

It is friable rock, easy to break. It contains some kaolin and is more siliceous and less alkaline.

Micas

These are less efficient fondant and are also alkaline.

Types of micas

- Muscovite (potassic)
- Biotite (Mafnesian)
- Lepidolith (lithin)
- Paragonit (Sodic)

Lime carbonate

That element must be finely broken and uniformly mixed to the pastes, it is transformed at red into bright lime, cao, then into silicate, if needed temperature is reached. If it is made of grains having a good sizes, the lines is swollen hydrating in contact with atmosphere coldness and make the objects burst, in the first case, in the second case the very fusible silicate which is already produced, flows and leaves tracks within the pieces of some clays.

Iron oxide

Calcium phosphate

It is in big quantity located within burnt bones. Under that form, it constitutes ones of the English phosphoric porcelain. If gives fusibility to paste, added to some glass silicates it communicates to then opaqueness.

Talc

It use allow the manufacture of a white paste at low mature temperature at high merge of burning security. The talc has the property of forming with the clay and the paste silica, composed fondants at low temperature. The ceramic pastes with tale are relatively less plastic and don't convene except at "mold".

It is used in different glassful pastes, in particular those which must receive frequent thermal shocks. It is also used in the profile porcelain for the same purpose and the pyrotechnic and electronic porcelain because of its high electric resistance and strong resistance at the acid attacks. It empty however the "cordierite" the mineral at a low rate of dilatation. In the unique burning pastes, it facilitates the natural glaze.

Learning Unit 3- Execute ceramic artwork

LO3.1- Select ceramic artwork models for mask and animals

- Topic 1: Component of ceramic models

✓ Meaning of ceramic models

An **art model** poses for any visual artist as part of the creative process, providing a visual reference for the human figure in a work of art. However, more than being simply the subject of art, models are often thought of as muses, a source of inspiration without whom the art would not exist. The most common types of art works that use models are figure drawing, figure painting, sculpture and photography, but almost any medium may be used.

Art models are often paid professionals with skill and experience but are rarely employed full-time, and artists may also rely on friends and family to pose. Paid art models are usually anonymous and unacknowledged subjects of the work. Models are most frequently employed for art classes or by informal groups of artists that gather to share the expense of a model. Models are also employed privately by professional artists. Although commercial motives dominate over aesthetics in illustration, its artwork commonly employs models.

✓ Style of research for ceramic model

- Realism

Realistic drawing is what most people in Western cultures think of when they think of drawing - capturing what we see with our eyes and representing the three-dimensional world onto a two-dimensional surface using the elements of art such as line, shape, color, value, texture, space, and form. People have long valued the ability to be able to reproduce through drawing their environment and surroundings, and this is how drawing is generally taught. Many artists keep sketchbooks for that purpose, either as studies for bigger works and paintings or as finished artworks in their own right.

In its specific sense realism refers to a mid-nineteenth century artistic movement characterized by subjects painted from everyday life in a naturalistic manner; however, the term is also generally used to describe artworks sculptural and painted in a realistic almost photographic way.

Realism, in the arts, the accurate, detailed, unembellished depiction of nature or of contemporary life. Realism rejects imaginative idealization in favor of a close observation of outward appearances. As such, realism in its broad sense has comprised many artistic currents in different civilizations.

Realism masks examples





- Abstract

Abstract art is art that does not attempt to represent an accurate depiction of a visual reality but instead use shapes, colors, forms and gestural marks to achieve its effect.

Example of abstract masks




- Figurative

Figurative art, sometimes written as figurativism, describes artwork (particularly paintings and sculptures) that is clearly derived from real object sources and so is, by definition, representational. The term is often in contrast to abstract art:

Since the arrival of abstract art the term figurative has been used to refer to any form of modern art that retains strong references to the real world.

Painting and sculpture can therefore be divided into the categories of figurative, representational and abstract, although, strictly speaking, abstract art is derived (or abstracted) from a figurative or other natural source. However, "abstract" is sometimes used as a synonym for non-representational art and non-objective art, i.e. art which has no derivation from figures or objects.

Figurative art describes any form of modern art that retains strong references to the real world and particularly to the human figure.

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Figurative art is not synonymous with figure painting (art that represents the human figure), although human and animal figures are frequent subjects.

For examples of figurative






- ✓ Feasibility of ceramic models
  - Balance

Balance is the arrangement of lines, colors, values, textures, forms, and space. There are three types of balance: formal or symmetrical or informal or asymmetrical and radial balance. Formal or symmetrical balance has equal weight on both sides. Informal or asymmetrical balance has a different weight on each side to maintain balance. Radial balance is a circular balance moving out from a central object to maintain balance.

LO3.2-Enlarge ceramic artwork models for mask and animals

- Topic 1: Technique enlargement of ceramic model

✓ By sketching

A **sketch** is a rapidly executed freehand drawing that is not usually intended as a finished work. A sketch may serve a number of purposes: it might record something that the artist sees, it might record or develop an idea for later use or it might be used as a quick way of graphically demonstrating an image, idea or principle.

Sketches can be made in any drawing medium. The term is most often applied to graphic work executed in a dry medium such as silverpoint, graphite, pencil, charcoal or pastel. It may also apply to drawings executed in pen and ink, digital input such as a digital pen, ballpoint pen, marker pen, water color and oil paint. The latter two are generally referred to as "water color sketches" and "oil sketches". A sculptor might model three-dimensional sketches in clay, plasticine or wax.

❖ **Types of sketch drawings**

There are different types of architectural sketches, but this classification can be applied to any artistic work in which the sketch on paper is used as the first step to create a work.

Elemental sketch drawing

This type of sketch tries to draw by hand the first idea that goes through our mind on any paper and without any technical element. That is, to capture the ideas we have about the work to be developed and how we see it visually in our minds.

Comprehensive sketch drawing

The comprehensive sketch is a more detailed drawing of the project that is going to be built. In terms of development level, this kind of sketch is in the midpoint, so it's neither very elaborate nor very simple. It may contain a photograph or image that clarifies the idea.

Theoretical sketch drawing

This type of sketch is a theoretical interpretation of what will be the design of the project. In this drawing, the problems are represented by decomposing them in systems, subsystems, components, and elements, all of them represented graphically, pointing out the designations of the architects and formulating the elementary fundamentals.

Structural sketch drawing

In terms of architectural sketches, these drawings are made to explore the possible design solutions and possibilities of the problems that may have been raised in a previous theoretical sketch.

Formal sketch drawing

The final sketches are the formal sketches, due to they have technical specifications for the design of the final project. This type of sketch is very specific and has more features than the previous ones.

Functional drawing

This type has a high content at a theoretical level and also considers different studies, some already done and others that will help to carry out the final project. It may contain structural, flows, dynamics, and climate calculations, among others.

- ✓ By Stenciling

Stenciling, in the visual arts, a technique for reproducing designs by passing ink or paint over holes cut in cardboard or metal onto the surface to be decorated.

Examples of stenciling

- ✓ By projection

A systematic presentation of intersecting coordinate lines on a flat surface upon which features from a curved surface or the process or technique of reproducing a spatial object upon a plane or curved surface or a line by projecting its points also **:** a graph or figure so formed

LO3.3 Model of masks and animals

- Topic 1: Technique of modeling

The modelling in creative art

Modeling refers to the technique of representing an object in a miniature form using clay or wax modeling is an additive process. The term also refers to the act of serving as an artist's model. Modeling also means to plan according to a model.

- ✓ Additive technique

Additive sculpture means that materials are built up to create the sculpture's form. This the technique used to modeling ceramic object is done with clay, wax, or some other soft, pliable material. The ceramist adds pieces of material and molds it to the desired shape.

- ✓ Subtractive technique

Subtractive sculpture means the artist starts with a larger piece of material and removes some of it until only the desired form remains. All materials fall into one category or the other, and other materials can accommodate both additive and subtractive techniques. In fact, some go through additive and subtractive processes throughout the sculpting process.

The subtractive sculpture is opposite of the additive process of sculpture; the subtractive sculpture technique involves removing material to create a finished work. In ceramics, this technique is most often used for sculpture but functional potters can also have fun with it.

- Topic 2: Process of finishing masks and animals

Texture is the real thing. It is the actual way a surface feels when it is felt or touched, such as rough, smooth, soft, hard, silky, slimy, sticky, etc. 3-D art such as sculpture and architectural structures are tactile in nature because they can be felt. An example of real texture would be wood, sandpaper, canvas, rocks, glass, granite, metal, etc

3-D Texture - refers to the way an object feels to the touch 2-D Texture- refers to the way an object looks as it may feel
Visual texture - the illusion of a 3-D Surface simulated- imitate real textures

Invented - 2-D patterns created by the repetition of lines of shapes

Matte - surface that reflects a soft, dull light. Shiny surfaces are the opposite of matte.

Smooth textures - reflect light evenly, smooth surfaces, words like polished, velvety, slick, flat, and even can be used.

Rough textures - reflect light unevenly, Surface roughness often shortened to roughness, is a component of surface texture. It is quantified by the deviations in the direction of the normal vector of a real surface from its ideal form. If these deviations are large, the surface is rough; if they are small, the surface is smooth. In surface metrology, roughness is typically considered to be the high-frequency, short-wavelength component of a measured surface. However, in practice it is often necessary to know both the amplitude and frequency to ensure that a surface is fit for a purpose.

Roughness plays an important role in determining how a real object will interact with its environment. In tribology, rough surfaces usually wear more quickly and have higher friction coefficients than smooth surfaces. Roughness is often a good predictor of the performance of a mechanical component, since irregularities on the surface may form nucleation sites for cracks or corrosion. On the other hand, roughness may promote adhesion. Generally speaking, rather than scale specific descriptors, cross-scale descriptors such as surface factuality provide more meaningful predictions of mechanical interactions at surfaces including contact stiffness and static friction.

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