# **TVET CERTIFICATE V IN SCULPTURE AND CERAMICS**



**REQF Level: 5** 

Credits: 3

Sector: Art and Craft

Sub-sector: Sculpture and Ceramics

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# Learning hours: 30

### **Purpose statement**

This module describes the skills, knowledge and attitude required to be able to identify ceramic coloring tools and materials, analyze ceramic coloring and apply ceramic coloring means that leaner will be able to mix all kinds of color related to the ceramic artwork.

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# Learning Unit 1 – Identify ceramic coloring tools and materials

# LO 1.1 – Identify types of ceramic colouring tools and materials

#### <u>Topic 1: Types of ceramic coloring tools</u>

**Ceramic colorants** (Ceramic coloring) are added to a glaze or a clay to create color. Carbonates and oxides of certain metals, characterize most colorants including the commonly used cobalt carbonate, cobalt oxide, chrome oxide, red iron oxide, and copper carbonate. These colorants can create a multitude of colors depending on other materials they interact with and to which temperature and in which atmosphere they are fired.

✓ Wood tools

#### 1. Wooden Scrappers and Ribs

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

#### 2. 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.

#### 3. 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.

#### 4. Wooden 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 too fragile to be used during the throwing process

✓ Metal tools

#### 5. Cut-off wires

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

#### 6. Metals scrappers and Ribs

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

#### 7. 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.

#### 8. Metals 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 too fragile to be used during the throwing process

#### 9. Calipers

Calipers are used to measure the inner and outer dimensions of pottery ware. This comes in handy for projects such as jars and saucers.

- ✓ Plastic tools
- Durable plastic material: pottery tool kits are made from good quality plastic material, hard enough to use for long time
- Easy to handle and clean: each kid's pottery tools come with an easy way to grip handle, good tools for shaping and sculpting
- Varieties of shapes tips: compact design make it easy to use these clay tool kits for you, great for fine detail work in pottery, sculpture and jewellery making
- Common usage: suitable for both home and school uses, can be applied to ceramic arts, plasticise modelling, clay modelling, baking, etc.
  - ✓ Textile tools

#### **10. 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.

#### 11. Paintbrushes

Paintbrushes will be your best friends while you are painting. Read this Artist Paintbrush Guide to find out all about the different types of paintbrushes for acrylics, what they are used for, and how to care for and clean your paintbrushes.

If you're not sure which paintbrush(es) to buy, check out my in-depth page about acrylic paintbrushes, which discusses things such as hair type, size and shape, to better help you select the paintbrushes you need to get started with acrylic painting.

#### 12. Palette

A palette is the surface upon which you mix the paints. There are many different types of palettes available for use with acrylics, so read this Artist Palette Guide to find out which one is right for you!



#### <u>Topic 2: Types of coloring materials</u>

# ✓ Liquid materials

A **liquid** is a nearly incompressible fluid that conforms to the shape of its container but retains a (nearly) constant volume independent of pressure. As such, it is one of the four fundamental states of matter (the others being solid, gas, and plasma), and is the only state with a definite volume but no fixed shape.

A liquid is made up of tiny vibrating particles of matter, such as atoms, held together by intermolecular bonds. Like a gas, a liquid is able to flow and take the shape of a container. Most liquids resist compression, although others can be compressed. Unlike a gas, a liquid does not disperse to fill every space of a container, and maintains a fairly constant density. A distinctive property of the liquid state is surface tension, leading to wetting phenomena. Water is, by far, the most common liquid on Earth.

Example of liquid: Water



### Liquid paint

**Paint** is any pigmented **liquid**, liquefiable, or solid mastic composition that, after application to a substrate in a thin layer, converts to a solid film. It is most commonly used to protect, color, or provide texture to objects.

### ✓ Powder materials

**Color powder** is all certified non-toxic and free of any heavy metals.

Exmples Our bright **colors** are a combination of cornstarch, baking soda, and FD&C (food-safe) dyes. The most commonly used **powders** are copper-base and iron-base **materials**. **Powders** of the elements titanium, vanadium, thorium, niobium, tantalum, calcium, and uranium have been produced by hightemperature reduction of the corresponding nitrides and carbides

✓ Plastic materials

# **Defining the Terms**

**Plasticity:** The property of clay that allows it to change shape without rupturing when force is applied to it. Plasticity of potter's clay cannot be measured by any scientifically repeatable test. Therefore, its measurement is subjective.





Clay kaolin body plasticity in the studio

**Workability:** The character of clay that is a combination of plasticity and wet strength. The addition of grog or sand may permit plastic clay to stand up taller without slumping, thus making it more workable even though it is not more plastic.

**Short:** Clays and clay bodies lacking plasticity. A coil rolled or extruded from short clay, when bent sharply or tied in a knot, will show signs of tearing and cracking.

**Particle Packing:** A present, always less than one hundred, representing the volume fraction of solids in a given volume of a material.

**Flocculation:** The process very small particles like clay exhibit in forming loose clumps due to weak electrostatic attraction between the particles. These clumps are called flocks or agglomerates.

# LO 1.2 – Demonstrate ceramic coloring tools and materials

#### <u>Topic1: Types of ceramic coloring tools</u>

✓ Wood tools

#### Wooden Scrappers and Ribs

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



#### 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.





#### **Potters Needles**

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#### Wooden Ribbon Tools

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✓ Metal toolsCut-Off Wires

A cut-off wire has 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.





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#### Calipers

Calipers are used to measure the inner and outer dimensions of pottery ware. This comes in handy for projects such as jars and saucers.



Plastic tools  $\checkmark$ 

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- Common usage: suitable for both home and school uses, can be applied to ceramic arts, plasticise • modelling, clay modelling, baking, etc.





- Textile tools  $\checkmark$
- **13. Potters Needles**



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#### 14. Paintbrushes

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If you're not sure which paintbrush(es) to buy, check out my in-depth page about acrylic paintbrushes, which discusses things such as hair type, size and shape, to better help you select the paintbrushes you need to get started with acrylic painting.



A **paint roller** is a paint application tool used for painting large flat surfaces rapidly and efficiently. The paint roller typically consists of two parts: a "roller frame," and a "roller cover." The roller cover absorbs the paint and transfers it to the painted surface, the roller frame attaches to the roller cover.



15. Palette



A palette is the surface upon which you mix the paints. There are many different types of palettes available for use with acrylics, so read this Artist Palette Guide to find out which one is right for you!



# <u>Topic 2: Types of coloring materials</u>



# ✓ Pastel materials

### The paste materials

A thick, soft, moist substance typically produced by mixing dry ingredients with a liquid







#### ✓ Powder materials

Color powder is all certified non-toxic and free of any heavy metals. Our bright colors are a combination of corn-starch, baking soda, and FD&C (food-safe) dyes. Some color runners opt to wear glasses or goggles for their eyes and use a bandana or dust mask for their mouths

The most commonly used powders are copper-base and iron-base materials. Powders of the elements titanium, vanadium, thorium, niobium, tantalum, calcium, and uranium have been produced by high-temperature reduction of the corresponding nitrides and carbides



✓ Plasticity materials

**Plasticity:** The property of clay that allows it to change shape without rupturing when force is applied to it. Plasticity of potter's clay cannot be measured by any scientifically repeatable test. Therefore, its measurement is subjective.



Clay Body Plasticity in the Studio



# LO 1.3 – Use ceramic coloring tools and materials

#### <u>Topic 1: Methods of using coloring tools and materials</u>

# ✓ Manual methods

# Sponge's method

Rather than apply it also known as the sponge off technique. This technique is often used when you want less of the base coat to show through you'll create the base coat as before. But after it's dry you'll roll the second color on and then sponge. It off cleaning the sponge as you go along sponging

#### Painting brushes method

A paintbrush is a brush used to apply paint or sometimes ink. A paintbrush is usually made by clamping the bristles to a handle with a ferrule. They are available in various sizes, shapes, and materials. Thicker ones are used for filling in, and thinner ones are used for details. They may be subdivided into decorators' brushes used for painting and decorating and artists' brushes use for visual art

# Types of paint brushes and their uses

- Round brush
- Flat brush
- Angular brush
- Filbert brush
- Dagger brush
- Tongue brush
- Comb brush
- Fan brush.



### Paint Scraper.

The tool has a flat steel blade and a handle of wood, plastic, or metal. Its uses are many, among them removing wallpaper or paint after they've been softened with heat and it can be wielded in a grip similar to that you use to hold a screwdriver





#### **Paint tray**

**Paint trays** are made of aluminum or plastic and come in standard 7-inch and 9-inch versions. The 9-inch size is most popular because you can then use either a 7- or 9-inch roller. Some trays come with hooks that allow you to attach them directly to a ladder. The trays, of course, are washable and durable.



Mechanical method

#### **Spray Painting method**

Paint is usually administered from a spray bottle to achieve the desired results. Mostly spray paints are used on streets (street art), graffiti, canvas, wood, metal, glass, ceramic and more. If a large are of canvas requires the same pigment, spray painting technique is used to cover the areas for a faster turnout.

# Learning Unit 2 – Analyse ceramic coloring

#### LO 2.1 – Compose of ceramic coloring

#### <u>Topic 1: Composition of ceramic coloring</u>

**Composition of ceramic**, are any of a group of important hydrous aluminum silicates with a layer (sheetlike) structure and very small particle size. They may contain significant amounts **of iron**, alkali metals, or alkaline earths, Silica, Alumina, Flux, Sodium, Potassium, and Calcium

#### **General Considerations**

The term **clay** is generally applied to (1) a natural material with plastic properties, (2) particles of very fine size, customarily those defined as particles smaller than two micrometers ( $7.9 \times 10^{-5}$  inch), and (3) very fine mineral fragments or particles composed mostly of hydrous-layer silicates of aluminum, though occasionally containing magnesium and iron. Although, in a broader sense, clay minerals can include virtually any mineral of the above-cited particle size, the definition adapted here is restricted to represent



hydrous-layer silicates and some related short-range ordered alum inosilicates, both of which occur either exclusively or frequently in very fine-size grades.

#### <u>Topic 2: Components of glaze</u>

Five Basic Components for Glazing Pottery

Pottery glaze is made up of five basic components. These components are silica, alumina, flux, colorants and modifiers. Even though all glazes are made up of the same components, there is a vast range of colors and types to choose from. The common ingredients that are in glaze colors are copper oxide, copper carbonate, cobalt oxide and iron oxide. When using glaze for your pottery products, it is always important to be aware of what exactly it is that you are working with. Below is a list of the five components that pottery glazes are made up with and what role they play.

**Silica** - When silica sand is heated in the kiln past 3100 degrees F it melts and forms into glass. Along with silica sand, flint is also added in this component for a proper finish.

Alumina - Alumina is used to help the glaze stick to the clay properly and keep it from running of the piece when heated up to high temperatures.

**Flux** - This component in particular is what helps melt the glass component called flint. The types of flux you can choose from are bone ash, iron, zinc, sodium and many more.

**Colorants** - Colorants are a whitening agent such as iron oxide, chromium oxide and talc.

**Modifiers** - Modifiers are used to change the glaze surface affects like the opacity and transparency. Below are the different types of modifiers

# LO 2.2 – Select of ceramic coloring

- <u>Topic 1: Types of ceramic colors</u>
  - ✓ Primary coloring

#### The primary colors

Primary colors include **red**, **blue and yellow**. Primary colors cannot be mixed from other colors. They are the source of all other colors. Secondary colors are mixed from two primary colors adjacent to each other on the color wheel. The secondary colors are orange, green and violet. For basic color theory information, you may wish to reference the book blue and yellow don't make green. The Internet or your local library is additional sources for color theory or color mixing information.

#### Primary colors are called that for a reason





First and foremost, the primary colors, **Yellow, Red and Blue**, are at the top of any color structure. That's because you can think of the three primaries as the original parents of all the future generations of colors.

In theory, primary colors are the root of every other color.

So in other words, you could conceivably mix gazillions of colors with only three pure Primary pigments of Yellow, Red and Blue. Of course that's what they teach us in school. However, as I wrote in a previous color Wheel post, color is not an exact science.

The problem is paint pigment never works like that in real life. For instance, if you mix cadmium Red + Ultramarine Blue, you'll likely be sadly disappointed. If you were expecting a deep rich Violet (Purple), the resulting Brown will be a total surprise.

To understand why, we need to look at paint pigments. A primary **Yellow, Red or Blue** paint color usually refers to a paint that contains only one pigment. They are unmixed pigments that can't be created by mixing other colors.

Paint is manufactured with organic, mineral and chemical pigments. As a result, there are many different pure **Yellow, Red and Blue** pigment paints available.

In our example above, cadmium Red is a warm pure hue, leaning toward orange. Blue and orange are complementary colors. Brown is the neutralized result we get from mixing complementary colors. In this case it's pure blue + pure orangey/red. This result is only great if you actually want a rich Brown.

In this example, if you want to mix a rich Purple instead, use a cool pure red such as quinacridone red. That's because this pure pigment leans away from orange and mixes harmoniously with the cool pure blue.

### ✓ Secondary coloring

#### Secondary colors are second in line





Next come the three secondary colors, **Orange**, **Purple and Green**. Think of the secondary colors as the children of the three primaries as shown above.

In color theory we are taught that the Secondary colors are mixed like this:

- Yellow + Red = ORANGE
- Red + Blue = PURPLE
- Blue + Yellow = GREEN

✓ Tertiary colors

#### **Tertiary Colors are the In-Betweens**



Finally, the remaining six colors are referred to as the tertiary colors. Think of these as the six grandchildren of the Primary colors.

Again, color Theory teaches us that each Tertiary color is the result of one primary color mixed with one of its nearest secondary colors. Therefore, we end up with a new color somewhere in between.

- Yellow + Orange = YELLOW/ORANGE
- Red + Orange = RED/ORANGE
- Red + Purple = RED/PURPLE
- Blue + Purple = BLUE/PURPLE
- Blue + Green = BLUE/GREEN
- Yellow + Green = YELLOW/GREEN

**Cool colors** he phrase *cool color* is used to describe any color that is calm or soothing in nature. Cool colors are not overpowering and tend to recede in space. For this reason, cool colors typically make a space seem larger. Examples of cool colors include green, blue and violet (think calming blue waters). Some also use cool colors to describe more neutral white and greys.

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#### **Complementary color scheme**

Colors that are opposite each other on the color wheel are considered to be complementary colors (example: red and green).

The high contrast of complementary colors creates a vibrant look especially when used at full saturation. This color scheme must be managed well so it is not jarring.

Complementary color schemes are tricky to use in large doses, but work well when you want something to stand out.

Complementary colors are really bad for text.



#### Analogous color scheme

Analogous color schemes use colors that are next to each other on the color wheel. They usually match well and create serene and comfortable designs.

Analogous color schemes are often found in nature and are harmonious and pleasing to the eye.

Make sure you have enough contrast when choosing an analogous color scheme.

Choose one color to dominate, a second to support. The third color is used (along with black, white or gray) as an accent.



#### Triadic color scheme

A triadic color scheme uses colors that are evenly spaced around the color wheel.

Triadic color schemes tend to be quite vibrant, even if you use pale or unsaturated versions of your hues.

To use a triadic harmony successfully, the colors should be carefully balanced - let one color dominate and use the two others for accent.





#### Split-Complementary color scheme

The split-complementary color scheme is a variation of the complementary color scheme. In addition to the base color, it uses the two colors adjacent to its complement. This color scheme has the same strong visual contrast as the complementary color scheme, but has less tension. The split-complimentary color scheme is often a good choice for beginners, because it is difficult to mess up.



**Rectangle (triadic) color scheme** the rectangle or triadic color scheme uses four colors arranged into two complementary pairs. This rich color scheme offers plenty of possibilities for variation. Triadic color schemes work best if you let one color be dominant. You should also pay attention to the balance between warm and cool colors in your design.



#### Square color scheme

**The square color scheme** is similar to the rectangle, but with all four colors spaced evenly around the color circle. Square color schemes work best if you let one color be dominant. You should also pay attention to the balance between warm and cool colors in your design.





#### Colors tint and shade

In color theory, **a tint** is a mixture of a color with **white**, which reduces **darkness**, while **a shade** is a mixture with **black**, which increases **darkness**. Both processes affect the resulting color mixture's relative lightness. A tone is produced either by mixing a color with grey, or by both tinting and shading. Mixing a color with any neutral color (including black, gray, and white) reduces the Chroma, or colorfulness, while the hue (the relative mixture of red, yellow, green, etc. depending on the color space) remains unchanged.

In common language, the term *shade* can be generalized to furthermore encompass any varieties of a particular color, whether technically they are shades, tints, tones, or slightly different hues. Meanwhile, the term *tint* can be generalized to refer to any lighter or darker variation of a color (e.g. tinted windows).

#### Hue, Tint, Tone and Shade

#### Hue vest Color

To begin, most people use the terms Hue and Color interchangeably. It's very common, even with artists and designers to assume the two mean the same thing. Generally speaking, they sort of do, but technically they don't. The comment above sounds like one of those mind-bending riddles. In fact, the difference between them is actually very simple.

When you use color in any project, it's super helpful to talk or think about each one clearly. So let me explain the difference between Hue and olor in the easiest way possible.

- **COLOR** is the general term we use to describe every hue, tint, tone or shade we see. White, black and gray are often referred to as a color.
- A HUE refers to the dominant color Family of the specific color we're looking at. White, black and grey are never referred to as a hue.



Hue refers to the origin of the color we see. Think of the hue as one of the six primary and secondary colors. In other words, the underlying base color of the mixture you're looking at is **Yellow**, **Orange, Red, Violet, Blue or Green.** 

Before long you'll find it easy to identify the Hue more specifically. You'll begin to drill down and impress yourself, by describing the color something like this:

'The color has a Yellow Hue, leaning strongly toward green.'

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Indeed, this clarifies that the mixture began with the Primary Yellow, and gradually added the Secondary Color Green.

Neutrals also contain a Hue depending on their originating color. On the other hand, pure Black, pure White and Pure Grey do not contain a Hue.

Here are a few examples of how you can look at a color closely to decide which the dominant hue is. One you've established this in your mind, it becomes much easier to recreate the color or mix it further.

- Burgundy = RED
- Pink = RED
- Navy = BLUE
- Rust = ORANGE
- Cool Gray = It might be BLUE or even PURPLE or GREEN Really look at it.
- Warm Brown = It might be ORANGE but it might be RED or YELLOW Really look at it.

#### **Defining and Describing a TINT**

A Tint is sometimes also called a pastel. But to be precise, color theory defines a true tint as any hue or mixture of pure colors with only white added.



A Tint lightens the color, but it doesn't make it brighter. Even though the color may appear brighter, in actual fact it is not. In other words, it remains exactly the same color, only a paler version. Furthermore, even a small amount of White added to a color, transforms it into a Tint. Therefore, a Tint can range from slightly lighter than your original color, all the way to White with barely any of the color mixed in.

#### About tints

A *tint* is a screened (lighter) version of a color. Tinting is an economical way to make additional spot color variations without having to pay for additional spot color inks. Tinting is also a quick way to create lighter versions of process colors, although it doesn't reduce the cost of printing process colors.

As with non-tinted colors, it's best to name and store tints in the Swatches panel so that you can easily edit of that tint in your document.

all instances





#### A TONE

Color theory defines a true **tone** as any hue or mixture of pure colors with only gray added. To be precise, this definition considers gray as truly neutral. In other words, there are no additional pigments in the gray other than white plus black.



A neutral mixture of gray, no matter how light or dark will tone down the intensity of any color. As a general warning, be careful with how much gray you mix in. Too much gray dulls the color so much; it becomes impossible to get the brilliance back.

#### A SHADE

Color Theory defines a True Shade as any pure Hue or mixture of pure colors with only **black** added. In other words, it contains absolutely no white or gray.



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A Shade darkens the color. It remains the same Hue only a darker version. As has been noted above, even a small amount of white or gray added to a color, transforms it into a Tone. Therefore, a shade can range from slightly darker than your original color, all the way to nearly black with barely any of the color mixed in. As you can see below, the colors in the umbrella have been shaded by the lack of sunlight. However, if you wanted to paint this, you would add a tiny touch of black to each color.

# LO 2.3 - Identify qualities of ceramic coloring

### <u>Topic 1: Quality of coloring</u>

### ✓ Harmony

**A harmony**, a consistent, orderly, or pleasing arrangement of parts; congruity. Music. any simultaneous combination of tones. the simultaneous combination of tones, especially when blended into chords pleasing to the ear; choral structure, as distinguished from melody and rhythm.



#### ✓ Texture

#### **Understanding Texture in Art**

At its most basic, texture is defined as a tactile quality of an object's surface. It appeals to our sense of touch, which can evoke feelings of pleasure, discomfort, or familiarity. Artists use this knowledge to elicit emotional responses from people who view their work. The reasons for doing so vary greatly, but texture is a fundamental element in many pieces of art.

Take rocks, for example. A real rock might feel rough or smooth and it definitely feels hard when touched or picked up. A painter depicting a rock would create the illusions of these qualities through the use of other elements of art such as color, line, and shape.

Textures are described by a whole host of adjectives. **Rough** and **smooth** are two of the most common, but they can be further defined. You might also hear words like coarse, bumpy, rugged, fluffy, lumpy, or pebbly when referring to a rough surface. For smooth surfaces, words like polished, velvety, slick, flat, and even can be used.

#### **Texture in Three-Dimensional Art**



Three-dimensional artwork relies on texture and you cannot find a piece of sculpture or pottery that does not include it. Fundamentally, the materials used give a piece of art texture. That may be marble, bronze, clay, metal, or wood, but this sets the foundation for the work feels if it were touched.

As the artist develops a piece of work, they can add more texture through technique. One might sand, polish, or buff a surface smooth or they might give it a patina, bleach it, gouge it, or otherwise rough it up.

Many times you will see texture used in patterns such a series of intersecting diagonals lines that give a surface a basket weave look. Rectangles staggered in rows offer the texture of a brick pattern and concentric, irregular ellipses may imitate the texture of wood grain.

Three-dimensional artists often use a contrast of texture as well. One element of an artwork may be smooth as glass while another element is rough and mangled. This contradiction adds to the impact of the work and can help convey their message just as strongly as a piece made of one uniform texture.

#### **Texture in Two-Dimensional Art**

Artists working in a two-dimensional medium also work with texture and the texture may either be real or implied. Photographers, for instance, almost always work with the reality of texture when creating art. Yet, they can enhance or downplay that through the manipulation of light and angle.

In painting, drawing, and printmaking, an artist often implies texture through the use of brushstrokes lines as seen in crosshatching. When working with the impasto painting technique or with collage, the texture can be very real and dynamic.

Texture is something that artists can play with through the manipulation of their medium and materials. For instance, you can draw a rose on a rough textured paper and it won't have the softness of one drawn on a smooth surface. Likewise, some artists use less gesso to prime canvas because they want that texture to show through the paint they apply to it.

#### **Texture Is Everywhere**

As in art, you can see texture everywhere. To begin to correlate reality with the artwork you see or create, take the time to really notice the textures around you. The smooth leather of your chair, the coarse grains of the carpet, and the fluffy softness of the clouds in the sky all invoke feelings.

As artists and those who appreciate it, regular exercise in recognizing texture can do wonders for your experience. Examples for texture



Rough texture





Smooth texture

✓ Coloring effect and illusion What is Color effect?

The psychological effects of color,

Colors in the red area of the color spectrum are known as warm colors and include red, orange, and yellow. These warm colors evoke emotions ranging from feelings of warmth and comfort to feelings of anger and hostility.

#### The color after effect

Afterimages or aftereffects refer to visual images that are seen after the actual visual stimulus has been removed. But you will notice that while the light bulb has a yellowish hue, your afterimage will appear somewhat blue. An afterimage is actually a complementary color, which is not the same as opponent colors.



How do Color illusions work?

Color illusions are images where the object's surrounding colors trick the eye into incorrectly interpreting the color. What's happening with The Dress is that your eye is either discounting the blue so you're seeing white and gold, or discounting the gold so your eye sees blue and black.





✓ Verification and space illusion



✓ Successive contrast

Successive contrast is the effect created when you look at an object or a color immediately after you have observed an object or color, or, in 'Succession'. This if due to the after-image that is retained by your eye even after you stop viewing something, mostly bright. Take the blocks on the left – stare at the brighter blocks for some time, then look at the plain blocks. You'll see the colors imposed onto the plain blocks, maybe even in reverse. Now take the blocks on the right. Stare at the bright blocks and then look at the fainter blocks. The blocks will appear either gray or the colors may even change. This means that the after-

image impressions using successive contrast can alter not just plain, but colored fields as well.





# Learning Unit 3 – Apply ceramic coloring

# LO 3.1 – Describe ceramic artwork to be colored

- <u>Topic 1: Types of ceramic artwork to be colored</u>
  - ✓ Construction materials
    Earthenware

#### **Earthenware Pottery Made from Clay**

Earthenware is made from almost any basic clay material that's often found at riverbeds. It can be shaped and molded crudely with hand or turned on a potter's wheel, hence its description as potter's clay.

Earthenware can be fired at relatively low temperatures and if subjected to higher temperatures, it becomes harder and denser.

Clay color depended on the geographical location of where it is found and the chemistry of each clay deposit, with natural colors varying from a pale washed-out tan to deep reds and brown shades. Like all ceramics, earthenware can be finished with glazing or left unglazed.



Domestic materials

Porcelain

**Porcelain** is a ceramic material made by heating materials, generally including kaolin, in a kiln to temperatures between 1,200 and 1,400 °C (2,200 and 2,600 °F). The toughness, strength, and translucence of porcelain, relative to other types of pottery, arise mainly from vitrification and the formation of the mineral mulita within the body at these high temperatures. Though definitions vary, porcelain can be divided into three main categories: hard-paste, soft-paste and bone china. The category that an object belongs to depends on the composition of the paste used to make the body of the porcelain object and the firing conditions.



Reduction and oxidation porcelains





Oxidation porcelain look like reduction blue porcelain

#### ✓ Ceramic artworks

**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 aluminium (Al<sub>2</sub>O<sub>3</sub>·2SiO<sub>2</sub>·2H<sub>2</sub>O) with or without free silica.



# LO 3.2 – Select techniques of coloring ceramic artwork

- <u>Topic 1: Methods of coloring ceramic artwork</u>
  - ✓ Manual method

#### **Types of Painting Techniques**

- Oil painting
- Watercolor painting
- Pastel painting
- Acrylic painting
- Digital painting
- Ink wash Painting or Literati painting Chinese black ink
- Hot wax painting or Encaustic painting
- Spray Painting
- Fresco secco paintings wall painting technique
- Gouache opaque watercolor medium
- Enamel paintings
- Tempera paintings (are very long lasting)
- Sand Painting... etc

#### 1. Oil painting

Oil painting can be a difficult task for beginners. Oil painting is suitable for almost all kinds of styles. You get to work with smooth texture of paint and it has a wonderful scent to it. Oil paint uses some drying oil as a binder to the pigments, which gives the wonderful buttery feel to the paint. The most common drying

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oils used as a binder are walnut oil, linseed oil, poppy seed oil and many more. Oil painting was first used by Indian and Chinese artists in the 5th century, but it became popular only in the 15th century.

#### 2. Watercolor painting

Watercolor painting is usually done on the paper. In this particular type of painting, one uses water based solutions to mix the colors and hence the name water color painting. Compared to oil painting, watercolor painting is also similarly tough task. Nowadays you have plenty of artists trying out realistic looking portraits using watercolors. The mixing of colors is very crucial in this, since too much of anything, changes the shade of the colors.

#### 3. Pastel painting

Pastel sticks are normally used to create the pastel paintings. Using pastel sticks you can immediately start drawing and coloring, it uses the same binding pigments, except pastel sticks are a powder form which are bound together using a binding agent, and they are readymade. If you are looking for pure and deep colors, then it's highly recommended to use the pastel sticks. Pastel paintings can be done on canvas, so you can do beautiful layering of colors with pastels.

#### 4. Acrylic painting

If you are looking for faster drying painting, then acrylic painting is the best. These are water soluble paints, yet once the painting is complete, it turns water resistant. Interesting fact isn't it? Most hobbyists love to work with acrylic paints. For sculptures, molding, facial features, many artists use acrylic painting. It is easier to clean the brushes after is, since acrylic paints need only water to wash them off.

### 5. Digital painting

Digital painting is the art of creating artwork on a computer, which makes it resemble a watercolor painting, oil painting or even an acrylic painting. A digitally prepared oil painting and manually done oil painting will have plenty of differences, since you have access to plenty of other textures and instruments which are easily available on the system. Yes, you don't have to worry about paint spills a standing for long hours. You can do the same art in a relaxed manner, at the comfort of your homes.

#### 6. Sand painting

Painting on sand can be quite messy and it's a temporary art. The sand painting can be captured on video using speed motion, to understand how the artist works on them. It's normally done with minimal light, but has a focus light under the table where the sand painting is being created. Sand painting is created using colored sands, which is moved around on a fixed surface using hands.

#### 7. Texture painting - Texture to Paint



We all love to see the brush strokes on a painting; it gives a dramatic final effect. Texture paintings are mostly used with oil paints, since while working with acrylic paints, they effect are lost when the acrylics dry up. But oil paints tend to be expensive, so as a substitute one can use acrylic impasto which works amazing on textures. Apart from regular paint brushes, flat knifes, blunt objects are used to create texture paintings.

#### 8. Graffiti Art

Graffiti art is mostly done on public buildings with/without permissions. Graffiti is not meant to be understood by the general public, it's a style of writing or drawing/scribbling which has no absolute meaning. The first graffiti artist was a high school student in 1967, who used to write on walls to get his lady love's attention. Graffiti became a full-fledged known painting technique in 1980, were many artists resorted to public walls to showcase their talent.

#### 9. Matte painting

Beautiful landscapes are usually created with the help of matte paintings. Matte paintings are widely used in the film and video game industry. In the film industries large sets are created after a matte painting of the locations are finalized. Sometimes the environments like fairytale, sci-fi are very expensive to build, in such cases matte paintings are used as background screen and merged with other footages.

✓ Mechanical method

### **10. Spray Painting**

Paint is usually administered from a spray bottle to achieve the desired results. Mostly spray paints are used on streets (street art), graffiti, canvas, wood, metal, glass, ceramic and more. If a large are of canvas requires the same pigment, spray painting technique is used to cover the areas for a faster turnout.

#### The spray paint used for

The surfaces can I spray paint, Due to spray paint's versatility, it can be used on many different surfaces such as plastic, metal, wood, ceramic, plaster, concrete, canvas, particle board, laminate, glass, and many more.

#### How does a spray paint work?

How Spray Paint Works. Spray paint, also known as **aerosol paint**, is paint that's stored in a pressurized container and dispensed using a valve to release a mixture of paint and a propellant, usually pressurized gas or compressed air. The result is a fine, even mist that is easily applied to a variety of surfaces







#### **Types of painting Styles**

There are many different types of painting styles, you can focus on a particular style or do a combination of styles. The most sought after painting style by most artists is the western style.

#### WESTERN STYLE

- Modernism
- Cubism
- Surrealism
- Expressionism
- Abstract style
- Impressionism
- Figurativism / Figurative Art
- Art Deco visual art, architecture and design
- Art Nouveau inspired by nature

#### EASTERN STYLE

- Chinese paintings
- Japanese paintings
- Korean Painting
- Indian paintings: Tanjore, Mughal, Rajasthani and Pattachitra

You might be impressed by a certain form of painting style or even history around out. Whatever the case maybe, painting is all about letting your inner creativity on a piece of canvas, which will be totally liberating. Also explore

Abstract Art, landscape painting, still Life painting, contemporary art, concept art, photorealism, hyperrealism, surrealism, modernism, impressionism, expressionism, and pop out paintings, figure

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painting, body painting, and mural painting, street art, Chinese painting, and Japanese painting, Korean painting, Islamic painting, Indian painting, African painting and Vedanta

# LO 3.3 – Apply coloring ceramic artwork

#### Topic 1: Apply methods of coloring ceramic artwork

✓ Mechanical method

#### Painting

Painting is not a recommended method for applying glaze all over the surface, as it can appear patchy when fired (although commercial glazes tend to be more forgiving) this technique is useful if you intend to have a painterly feel to your work, such as large brushstrokes or gestural mark. Use a thick, soft brush to apply the glaze. Build up several layers of glaze undemeath or on top of a base coat. See which aesthetic you prefer, as the results will differ.

#### Spraying method

Spraying glaze is very effective method to cover large-scale pieces that would be impossible to dip or pour. It requires a spray-booth unit with extraction, a compressor, and a gravity-feed spray gun. These are costly items, but well worth the investment tools such as a garden sprayer, but the quality are not comparable. You will also need a banding wheel, wooden bat, sponge, pottery needle, and a jug of glaze.

- ✓ Manual methods
  - ✤ Applying glaze

Glaze is best applied to dry bisque, although many glazes are suitable to be used on raw, unfired clay. The surface of the piece should be clean and free of dust. Thoroughly mix and stir your glaze before application.

**Pouring and dipping** are the most accessible methods of applying glaze to use in a studio environment. The interior of a vessel is usually poured and the outside dipped.

**Dipping** once the interior has been poured the outside can be dipped. It is also possible to glaze a piece all over by submerging it completely in the glaze. Dipping can be done by hand, but glazing tongs are useful for pieces that are awkward to grip.

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