

Senior 3

studio technology notes

Characteristics of clay continued.

Clay is characterized by 4 Main characteristics which make it different from other types of soils.

They include:

Plasticity

Porosity

Vitrification

Shrinkage

Plasticity

This is the ability of clay to be able to stretch, bend, and hold shape during its manipulation by an artist. Plasticity in clay is attained by wedging and kneading clay using hands.

Plasticity in clay can be tested by making a coil and rolling it around your fingers.

Porosity

This is the ability of clay to absorb air, water and dry slowly without cracking.

When clay has been wedged or kneaded it loses water at a certain degree of moisture making it ready for use and workable.

Vitrification

This is the ability of clay to withstand high temperature during firing and turn into a glassy state. During firing process the temperatures are high and when clay

is put into the kilns it had to withstand high temperatures and come out with out cracks and it doesn't break.

Shrinkage

Clay articles lose weight and reduce in size after firing them.

During firing the clay will reduce in size so articles that went in big can always reduce in size and height thus shrinkage as a character.

Clay preparation

For a good result from clay, it has to be prepared, or purified. This is done to remove unwanted materials such as roots, leaves, stones, humus, polythene paper etc.

Clay is prepared in the following methods

Dry method

Wet method

Plastic method

Semi dry method

Dry method

Is where clay is dried, crushed and sieved to remove impurities.

Procedure

First you mine clay from the sources

Expose it to that outside to dry under the sun

Using a stick or a stone, crush the clay into powder.

Using a sieve, net or mesh, sieve the clay to remove impurities.

Mix your clay powder with water.

Add additives such as grog in your clay.

Wedge and knead your clay to make it plastic.

Store your clay in a plastic bag or container for 1-2 weeks and it will be ready for use.

Grog in this case is fired clay pieces crushed into a powder form.

Wet method

This is where clay is mixed with water to form slip and then it sieved.

Procedure

Begin by mining your clay from the source

Put it into a container add water and slake it .

Sieve the mixture of clay and water. Fine clay will pass through and impurities remain on top.

Leave the mixture of clay and water in a container to settle for a week.

Clay will settle down and water will settle on top.

Carefully pour the water off .

Expose your clay to air to lose unnecessary moisture .

Add grog

Wedge and knead your clay well

Keep it in a plastic container and it will be ready.

Plastic method

This involves use of available moisture in clay to prepare it.

If your clay is dry add water to make it more soft.

Pinch a small lump of clay and if you feel any impurities remove it or them physically.

Wedge and knead your clay.

Semi dry method

This method involves both wet and dry methods .it involves .

Mining of clay from the sources .

Leave it to dry outside in the sun

Crush the clay into powder form

Mix it with water .

Sieve the mixture with a sieve so that you stay with the finest clay.

Leave it on a container to settle.

Carefully pour water off.

Expose it to air to lose unnecessary moisture

Add grog

Wedge and knead your clay

Keep it for one to two weeks to get ready..