



THE WONDERFUL WORLD OF CLAY

ART I

WHAT IS CLAY?

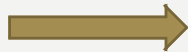
- **CLAY** ($\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$) is a soft, pliable sedimentary material made from minerals (mostly silica and aluminum) that undergoes a *physical* and *chemical* change when fired causing it to keep its form
- Unfired clay can be reconstituted, or turned back into malleable material by the addition of water over time
- Fired clay is porous (absorbs liquid), but unable to revert back to wet clay (You can't unbake a cake...)

WHAT IS CLAY?- THE PROCESS TO CERAMIC

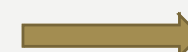
CLAY IS MADE INTO AN OBJECT...



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THE STRUCTURE
OF THE CLAY IS
MELTED AND
FUSED DURING
FIRING...



THE CLAY IS
NOW CERAMIC!



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I KEEP SAYING “FIRED,” AND “FIRING...” WHAT AM I TALKING ABOUT???

- Dry clay goes in...



- ...Ceramics come out!



THIS EQUIPMENT GETS UP TO +2000°F. DO NOT TOUCH IT.

HISTORICAL WORKS

Since clay becomes a permanent object through firing, it can last for several, if not, hundreds of years.

This is the reason that the most common artifacts found at archaeological dig sites are ceramics (broken plates, vases, ornaments, etc)



HISTORICAL WORKS

This is an Etruscan coffin made entirely out of clay! *The Sarcophagus of the Spouses* measures 1.14 m × 1.9 m (3.7 ft × 6.2 ft)- a considerable amount of material has gone into making an object of this size. This work dates back to the 6th century BCE.



HISTORICAL WORKS

The terracotta soldiers (Terracotta Army) from the Forbidden City in China are found to be handmade from clay. There's over 8,000 individual, life-sized (yes, life-sized) statues which all have one-of-a-kind decoration according to their rank and duties; even their faces are varied!



WHAT CLAY ARE WE USING?

- LONGHORN CLAY WET



- LONGHORN CLAY DRY AND THEN FIRED



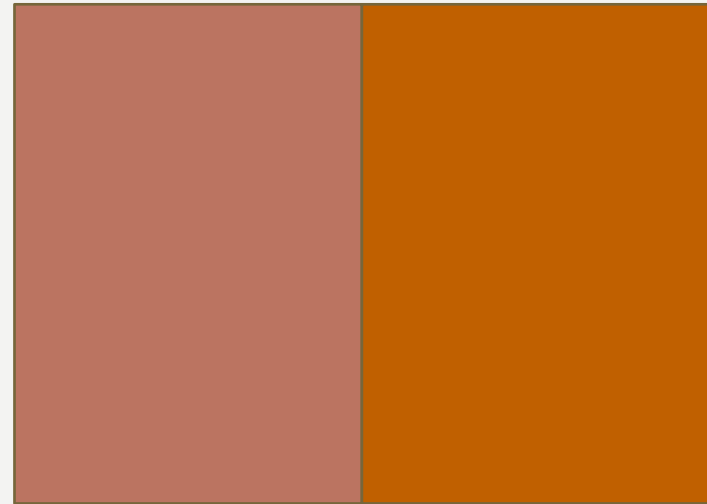
“LONGHORN WHITE”- LOW FIRE CLAY (MINIMUM MAX TEMP 1500),
COMPLETELY WHITE WHEN DONE

WHAT CLAY ARE WE USING?

- LONGHORN CLAY WET



- LONGHORN CLAY DRY AND THEN FIRED



“LONGHORN RED”- LOW FIRE CLAY (MINIMUM MAX TEMP 1500),
TERRACOTTA WHEN DONE



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STAGES OF CLAY

WET/PLASTIC-THE
FIRST STAGE OF CLAY;
MALLABLE, EASY TO
MANIPULATE

BEST STAGE FOR
ROLLING, WHEEL
THROWING, COIL
AND PINCH HAND-
BUILDING



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STAGES OF CLAY

LEATHERHARD- THE SECOND STAGE OF CLAY; LOST NEARLY HALF ITS WATER CONTENT, CAN BE MANIPULATED CAREFULLY

BEST STAGE FOR CARVING, CUTTING, STAMPING, SLAB BUILDING



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STAGES OF CLAY

BONE DRY- THE MOST FRAGILE STATE OF CLAY; CLAY HAS LOST ALL WATER, CANNOT BE MANIPULATED FURTHER UNLESS RECONSTITUTED

BEST STAGE FOR UNDERGLAZING



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STAGES OF CLAY

BISQUE/FIRED- ONE OF THE LAST STAGES; THE CLAY IS NOW CERAMIC AFTER BEING FIRED IN THE KILN, HIGHLY DURABLE

BEST STAGE FOR GLAZING



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STAGES OF CLAY

GLAZED CERAMIC-
LAST STAGE,
REQUIRES FIRING;
THE PIECE IS NOW
COMPLETE



STAGES OF CLAY

SLIP- THIS IS WATERED DOWN CLAY (MORE WATER THAN CLAY). IT IS USED TO “GLUE” PIECES TO ONE ANOTHER



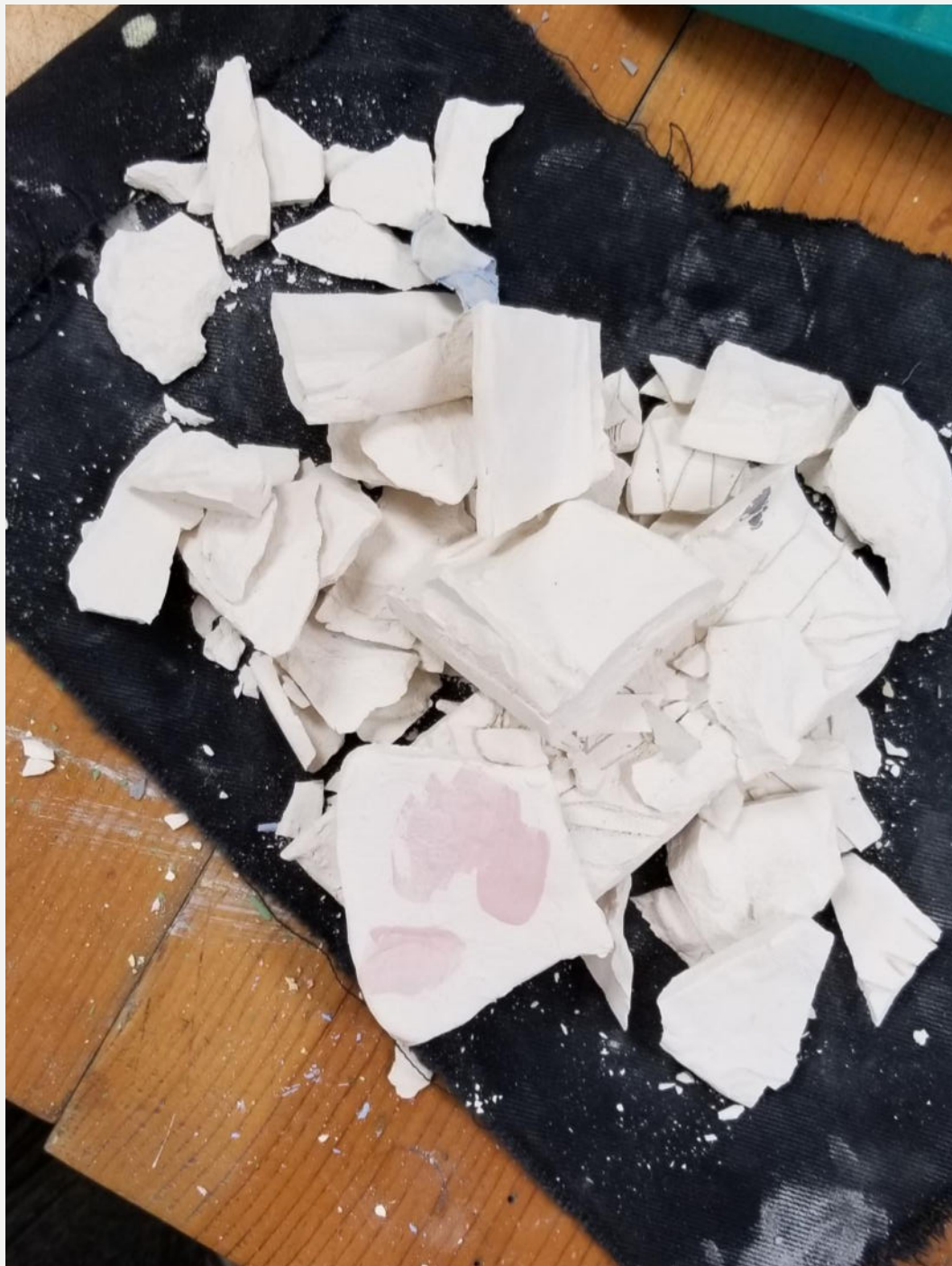
CLAY METHODS- ATTACHING PARTS

SCORE & SLIP (OR
SCRATCH &
ATTACH)- WHEN
ATTACHING
ANYTHING, YOU
MUST FIRST SCORE
IT AND ADD SLIP



CLAY METHODS- RE-COMBINING CLAY (WEDGING)

BE CAREFUL WHEN
YOU RECOMBINE
YOUR CLAY. IF ANY
AIR BUBBLES ARE
PRESENT IN YOUR
FINISHED PIECE, IT
CAN SLOW DRYING
AND LEAD TO
CRACKING IN THE
KILN!



WHY YOU NEED TO LET YOUR PIECES DRY FULLY

THIS PIECE WAS NOT
GIVEN ENOUGH
TIME TO DRY AND,
UNFORTUNATELY,
EXPLODED DUE TO
MOISTURE/STEAM

DON'T LET THIS BE
YOUR PIECE!

OUR TOOLS FOR CLAY



RIB



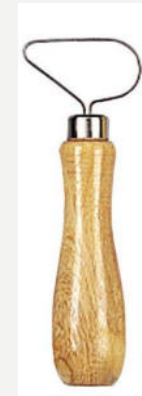
KIDNEY



SPONGE



WIRE
CUTTER/CLAY
CUTTER



LOOP TOOL



VARIOUS
MARKMAKING
TOOLS



NEEDLE TOOL



WOODEN
TOOLS



RIBBON TOOL



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CLAY METHODS

SLAB

ROLLING/BUILDING-



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CLAY METHODS

PINCH POT



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CLAY METHODS

COIL BUILDING



BEST PRACTICES

WORKING WITH CLAY



COVER IT UP

CLAY IS FULL OF
WATER AND THE
WATER WILL
EVAPORATE IF IT IS
LEFT UNCOVERED.
WRAP ANY CLAY
YOU ARE NOT
WORKING WITH IN
PLASTIC TO KEEP IT
FROM DRYING OUT!



USE WHAT YOU HAVE

ONLY WHEN YOU
COMPLETELY RUN
OUT OF CLAY ARE
YOU ALLOWED TO
ASK FOR MORE. DO
NOT HOLD ONTO
CLAY AND LET IT SIT
UNUSED.



STAY HYDRATED

IF YOUR CLAY IS
DRYING OUT WHILE
YOU'RE WORKING
ON IT, SPRAY IT
WITH WATER FROM
THE SPRAY BOTTLES.
LEAVE IT ON THE
MIST SETTING AND
BE CAREFUL NOT TO
OVERDO IT!