Chapter 1
Introduction to Baltimore Clayworks

Welcome to Baltimore Clayworks! Baltimore Clayworks is a neighborhood-based not-for-profit ceramic art center with a national reputation for artistic excellence, artists' support, and community involvement. Baltimore Clayworks is a 501(c)3 non-profit

*The mission of Baltimore Clayworks is to develop sustain,and promote an artist-centered community that provides outstanding educational, artistic, and collaborative programs in the ceramic arts.*

Location
Clayworks is housed in two historic buildings located in the northwest corner of Baltimore City. A former Carnegie library, built in 1919 and the continuing home of Clayworks for the past 20 years, houses studios, kilns and classrooms. A former convent, built in 1878 and donated by The St. Paul Companies to Baltimore Clayworks in 1999, opened in September 2000 and currently houses galleries, meeting space, and offices.

History
The center was founded in 1978 by nine potters and ceramic sculptors who sought to establish a center for artists, students, and the public to experience and learn about clay. The Baltimore Clayworks founders came together in the art department of Towson State University as students, technicians, and adjunct faculty and began to search for a collective space to work in clay, teach and exhibit. In 1978, a committee of Mt. Washington citizens chose Baltimore Clayworks from a field of applicants to purchase the old Enoch Pratt Library from Baltimore City. After renovating the building, adding a mezzanine and kiln house, Clayworks opened its doors in November 1980. In 1999, The St. Paul Companies donated a piece of property called "The Provincial House" to Baltimore Clayworks, which opened in September 2000 as Baltimore Clayworks Gallery Building. In October 2003 we had the groundbreaking ceremony to celebrate the beginning of the addition to our studio building. We have just completed a 7,400 sq. foot addition to our studio and classroom space that will be the envy of the ceramic world.

Community Arts at Baltimore Clayworks
Baltimore Clayworks provides opportunities for trained artists to connect with our community! The board, staff and artists of Clayworks believe it is vital to the mission to make hands-on arts programming accessible to all, especially to individuals with little or no access to the arts. This is accomplished through our multi-faceted community arts program in a number of different and exciting paradigms that Baltimore Clayworks has developed and evolved over the years.
This community engagement began in 1985, when Clayworks began hosting nationally and internationally acclaimed artists through the “artists in communities” grant from the Mid Atlantic Arts Foundation. This program enables Baltimore Clayworks to host artists for a three to six month residency during which they have studio space to develop their own studio work, as well as the opportunities to engage local communities in arts projects and programs. This program enriches the entire organization, creating opportunities for the other resident artists, students, staff, board and supporters to learn and exchange ideas.

To carry out its mission and live its values, Baltimore Clayworks operates four programmatic areas:

Community Arts - Community arts is a signature program of Baltimore Clayworks and has been for more than 30 years. Through this initiative, Clayworks conducts arts activities beyond its doors, developing collaborations with grassroots and cultural organizations, schools and public agencies, to connect artists with individuals of underrepresented communities of Baltimore and providing access to quality hands-on arts programming. Participant's works are exhibited in the Community Arts Gallery.

Educational programs – Engage regional ceramic artists to provide hands-on studio more than 25 classes in all aspects of pottery, clay sculpture, and ceramic processes for adults and children ages 6+. Weekly classes, team building workshops, 1-day and 2-day workshops for aspiring clay artists, advanced students and professional clay artists conducted by artists of national reputation. Additional programming includes visiting artist lectures, special events for the and internship opportunities for college students.

Artist Residencies and Fellowships – Provide a dynamic artist centered community which fosters artistic growth and professional development for Artists from around the globe. Ceramic artists are at the heart of Baltimore Clayworks. Artists’ professional and personal networks provide a kaleidoscope of interactions with peers, galleries, and academic institutions, which keep the organization at the forefront of contemporary ceramic art. Our residencies offer early to mid-career artists the opportunity to develop their work in a dynamic community environment. Residencies last one to three years and start in September. Selection of residents is highly competitive. We look for excellence of work, potential for growth, and a commitment to building a clay-oriented community.

Exhibitions - Presentations of local, national, and international ceramic artists' work, both in our Exhibitions Galleries and off-site locales. Exhibitions may be juried, invitational, or curated. Our Gallery Building is also home to The Shop which showcases handmade ceramic artwork including pottery, tableware, sculpture, jewelry and more. Local and national artists are featured in our physical retail space and online shop year-round. Purchasing work from Exhibitions and The Shop equally supports the artists and the mission of Baltimore Clayworks.

Chapter 2
How to Contact Us! Dial 410.578.1919 followed by the extension

Interim Executive Director – Matthew Hyleck - extension 220
Matt.hyleck@baltimoreclayworks.org
Chapter 3
Classroom Policies

We are happy that you have chosen to spend part of your time working in CLAY at Baltimore Clayworks. Observing a few studio routines will contribute to your enjoyment of the class.

The Baltimore Clayworks administrative office hours:
- Monday - Friday, 10:00AM – 5:00PM
- Monday – offices accessible only by appointment

The Baltimore Clayworks Galleries and Shop are FREE and open to the public:
- Tuesday - Saturday, 10:00AM – 5:00PM
- Sunday, Noon - 5:00pm
- Monday CLOSED

The Baltimore Clayworks classrooms are open during administrative hours and while classes are in session, 10am-1pm and 6:30-9:30pm in the weekday plus Sunday class hours 11am-9pm.
Scheduled Studio access outside of weekly class times
Additional access to the Clayworks classroom is provided to all adult students to pursue their individual class work outside of class time. This is offered to all students currently enrolled in our 6 or 12 week courses and space is first-come, first serve. Studio access is restricted to Clayworks hours of operation. Individual classroom schedules may be found on the dry-erase boards posted in each classroom.

Students working outside of class time are required to "schedule" available 1-hour classrooms appointments. Please be on-time and please do not extend beyond your scheduled time as we likely will have classes and/or other students scheduled to use the studio(s).

Students may schedule multiple 1-hour time slots in any of our 3 classrooms (Kohn, A-Addition or B-Basement) or 2 glaze stations (Kohn and B-Basement) each week. Scheduling is only available 6 weeks in advance.
https://baltimoreclayworks.org/learning/schedule

Community Woodfire renters are asked to schedule in the B-Basement station prior to the scheduled loading date.

Studio access may be preempted for special presentations, workshops or due to scheduling changes; these changes will be posted on the individual dry-erase bulletin boards in the classroom.

No students are permitted to remain unaccompanied in the studio building after closing hours.

Please be on time to class.
The supply store will be available just before class and for the first half-hour into class for night classes and for day classes, you can pay for supplies and firing at the front desk across the street in the gallery building, your instructor may have a “demo” early in the class … you don’t want to miss any of this!

If you are planning to miss any classes, please let your instructor know.
If you miss a second consecutive class, please call Clayworks between 10am and 4pm and let the education staff know that you will be absent, and we will notify your teacher.

Please make sure we have your current email address
We have found this to be the best method of communication with our students. We will inform you of firing dates, events, exhibition opportunities, news, etc...

Inclement Weather Closing policy
Baltimore Clayworks follows the Baltimore City Schools SNOW closings.
If Baltimore City Schools close at noon, afternoon classes are canceled and we ask all evening students to:
Call after 4pm for evening open/close message
*Closings due to snow and ice only. Must be ALL city schools.

Fire Safety
In the event of a fire within the classroom building, please exit the building at the nearest exit. The building fire alarm automatically dials 911 and a phone call will be placed to verify the
alarm. **Fire Extinguishers** should be used for their intended purpose only and should not be removed from their designated locations. An extinguisher is located next to each exit. You may use an extinguisher to prevent the spread of fire once the fire department has been notified.

**Fire Doors and Windows**
Keep all fire and smoke doors closed. These metal doors prevent the spread of smoke or fire, minimizing damage and risk of personal injury in the event of a fire. Once the location of a fire has been determined all doors/windows adjacent to the area at risk should remain closed.

**Evacuation Procedures**
Take all personal belongings (purse, phone, coat) with you before exiting the building. Walk directly towards the nearest exterior exit door, do not use the elevator. Once outside of the building please meet across the street at the 5707 Smith Ave. building for a roll call with your class to ensure all students are present and accounted by your instructor. Do not attempt to reenter the premise until you have received clearance from our staff/instructor.

**Library**
The BC Library is a tremendous resource for students which offers a selection of textbook publications (current and out-of-print) and periodicals on contemporary and historical ceramics as well as technical instruction. The library is a lending library and all sign outs must be made at the 5707 Gallery front desk. Please visit our library located in the 1st floor Gallery Shop.

**Locker Usage & Security**
Please do not leave valuable personal items unattended in the classrooms. Our doors are open during the daytime and during evening classes but we cannot guarantee these items will be safe. Please place purses, wallets, cell phones and car keys in a classroom locker while working in the classroom. Students should provide their own padlock. Lockers are not for overnight storage of tools/materials.

**Cell Phones**
Please turn off or switch to vibrate all cell phones or pagers when you enter the building.

**Parking**
- Metered parking is available along Smith Ave. (free Sunday or weekdays after 6PM)
- The Clayworks Gallery Lot located between the 5707 Gallery building and the Light rail lot (look for the 4 hour touch screen meeters) and the meter attendants are very strict! Beware!
- The lot located behind the studio building is reserved for studio artists and instructors.

**Classroom and Cancellation Policies:**
The duration of most **WINTER** classes are 6 to 8 weeks, most **SPRING** and **FALL** classes are 6 to 12 weeks, and most **SUMMER** classes are 8 weeks. Tuition for each class includes: 25 pounds of clay and bisque firing. Students ages 16 and up are welcome to enroll in any adult classes or workshops.

You must be paid in full to guarantee a space is reserved for you in the class or workshop.

100% of payment will be refunded if notice is given 2 weeks prior to 1st class or workshop.

50% of payment will be refunded prior to the 2nd class session (if applicable).

Transfers made less than 2 weeks prior to 1st class will be charged a $20 administrative fee.

No refunds or application of fees to future classes after 2nd class. There will be no refunds or
application of fees issued for 1-day or 2-day workshop for cancellation notification received on or after the scheduled event date.

Transfers/Drop requests must be made during administrative office hours (10am-5pm M-F).

Transfers/Drop requests made outside of administrative office hours will be addressed and dated on the following business day, i.e., a drop request on Saturday, June 24th will be dated Monday, June 26th.

We reserve the right to cancel classes if the maximum enrollment is not reached.

Full tuition will be returned if the class is not conducted.

Students may access classrooms outside of scheduled class time during published office hours or while we have evening classes in session. Students working outside of class time are asked to sign-in/sign-out at the main Smith Ave. entrance.

Missed classes are nonrefundable.

Studio closings due to inclement weather will be rescheduled. All inclement weather related closings are based on the Baltimore City Schools schedule. Postponed classes by Baltimore Clayworks due to inclement weather will be added to the end of our printed session.

We recommend all first-time students purchase a basic pottery tool kit (PTK) with their registration, $24.00 plus tax.

Glaze fees for weekly adult courses are an additional cost of 6 cents (.06) per cubic inch or bulk rate at 4 cents (.04) after 1200 cubic inches.

Chapter 4

Pet Policy

Baltimore Clayworks (BCW) is responsible for the health and safety of all individuals in our Gallery, Shop and Studio Buildings. For this reason, BCW does not allow any pets in these areas at any time unless they are trained as a service animal.

Baltimore Clayworks (BCW) welcomes the presence of service animals assisting people with disabilities in areas open to the public in its Gallery, Shop and Studio Building. A service animal is defined as a dog that is individually trained to do work or perform tasks for a person with a disability. The work or task the service animal has been trained to provide must be directly related to the person’s disability. Examples of tasks that a service animal may perform include, but are not limited to, guiding people who are blind, alerting people who are deaf, pulling a wheelchair, fetching items, reminding a person with mental illness to take prescribed medications, or assisting someone during a seizure.

In determining whether an animal qualifies as a service animal, BCW employees may only ask whether the animal is required due to a disability and what specific work or tasks the animal has been trained to perform. BCW will not inquire about the nature or extent of the person’s disability or require documentation of the animal’s certification or training.
WHEN A SERVICE OR ASSISTANCE ANIMAL MAY BE EXCLUDED

A service or assistance animal may be excluded from BCW premises if the animal is out of control and the owner does not take effective action to control it, if the animal is not housebroken, or if the animal poses a direct threat to the health and safety of others.

In the event that the service or assistance animal is excluded, the person with a disability who uses the animal should be allowed to remain and may suggest alternative accommodations in lieu of the excluded animal.

QUESTIONS

Questions regarding service or assistance animals should be directed to the Executive Director by calling 410-578-1919 extension 220.

Chapter 5

Know Your Clay

Earthenware (cone ^04)

- #104 Red Low Fire WA/Grog cone 06-2 Good for large sculpture, slab or wheel work. Grog helps reduce warping and shrinkage.
- #417 cone 06-02 A beautiful smooth red earthenware popular for majolica ware.

Stoneware (cone ^10)

- #768 Stoneware cone 6-10 Soft warm beige/gray brown in reduction. Throws well, strong and versatile with excellent thermal shock properties.
- #182 Stoneware cone 6-10 Near white plastic stoneware. Good for use with bright glazes. Available with or without fine grog.
- #470 Stoneware cone 7-10 A light grey colored stoneware sensitive to flashing in salt and wood kilns.
- Orangestone cone 7-10 Highwater’s darkest reduction stoneware. Contains 9% fine mullite. Not to be used for single-side glaze ware at cone 10.
- B-Mix 10 cone 10 A smooth clay, easy to throw and form. Grey-white in reduction, lighter in oxidation.
- Soldate-60 cone 6-10 A course sculpture clay Grey-white in raw state, buff in reduction, lighter in oxidation.
- Dark Brown cone 6-10 A course sculpture clay Brown in raw state, Dark Chocolate in reduction. May bloat in heavy reduction. Recommended to blend with buff stoneware.

Porcelain (cone ^10)

- #130 Porcelain Clay cone 7-9 An excellent plastic body with the wet strength capabilities of stoneware. Fires white in reduction or oxidation.

Mid-Range Clay (cone ^2—6)

- #B-Mix 5 Clay cone 4-6 A smooth clay, easy to throw and form. Warm white in oxidation.
- Little Loafers cone 6 A smooth clay, easy to throw and form. Warm white in oxidation.
The majority of ceramic materials used in the Pottery are safe if handled correctly. However, over-exposure to any materials, through lungs, skin or mouth, can be harmful. At the Pottery, the most common hazard is airborne clay dust, which can cause silicosis and other serious lung damage. In addition, many metal oxides and metal compounds used in glazes are poisonous in their raw forms.

A complete MSDS (material safety data sheets) binder is available in our glaze lab or visit http://www.standardceramic.com

1. Never sand or scrape bone-dry clay or glaze inside the studio. If you need to sand a piece, please do so outside in the garden, and wear a particle mask. Be sure to clean up sanding dust afterwards with a wet sponge, or by sanding over a bucket of water.
2. Clean up spills and clay trimmings before they dry. Clean all surfaces by wiping with a wet sponge – never with a dry paper towel or broom!
3. Clean up THOROUGHLY after yourself in the studio, including the floor around your work area, when you are done working.
4. Clean all bats and boards with a damp sponge after you use them.
5. Students are REQUIRED to wear a particle mask when using the spray booth or chemical room.
6. It is strongly recommended that students use gloves when handling raw glaze materials and washes, especially those which contain heavy metals such as copper, cobalt and manganese. Disposable gloves and masks are available for sale in the Liaison office.
7. Please DO NOT pour excess slip or glaze down the drains. They are pollutants and cause drainage problems. The studio staff can advise where to dispose of contaminated glazes.
8. Always wash hands thoroughly handling glaze or clay ingredients.
9. Do not eat, drink or smoke while working with dry chemicals.

Chapter 6
Clean Up

PLEASE: CLEAN BEFORE YOU LEAVE
Leave it the Way YOU LIKE to See It!!

CHECKLIST:
• Your Wheel - Turn OFF, clean top, sides, splash pans & surrounding table
• Your Table Space - wipe clean before leaving
• Your Chair - push it in or place it on top of table
• Your stool - place it on top of your wheel
• Your Bats & Boards - scrape/wipe clean
• The Wedging Table - sponge clean
• The Floor - sweep or sponge all trimming/spills
• The Glaze Room - Tabletop, floor, everything lidded, wiped & in place
• The Sink Area
• Food – no food in studios permitted at this time / outdoor dining only

The most important contribution you can make to communal safety and health at the Clayworks is to maintain a clean and tidy studio.
Chapter 7
Finishing Your Work

How do you begin to glaze clay pieces?

**Length x Width x Height** = cubic inch measurement using classroom measuring cube.

Maryland state law requires that we charge 6% sales tax on all firing fees.

Glaze firing fee = .06 per cubic inch (.04 bulk rate at 1200 cubic)

Daytime students may pay all firing fees at the gallery front desk (5707 Smith Ave. across the street from the studio building).

Evening students may pay by check/or CC to instructor and receive 1 paid slip for each piece. No work will be fired without a record of payment for each pot being fired. This means EVERY glazed pot must be accompanied by a PAID slip.

^10 REDUCTION 101:
Gas reduction firing uses either natural gas or propane as fuel. Cone 10 reduction temperatures may exceed 2300F.

Gas is a combustible fuel which allows the potter to control the oxygen to gas ratio during the firing. Depriving the kiln of oxygen creates an atmosphere known as “reduction” which produces carbon monoxide—this atmosphere is only produced in fuel fired kilns (gas & wood).

It is specifically the burning of chemically combined oxygen in the clay and glaze minerals that gives reduction fired pottery its distinct and unique characteristics.

Do You Know Which Wax to Use?

- **White wax**- for bisque ware only! ALL bottoms of pots and lid seats, unless YOUR Teacher specifies otherwise!
- **Aftosa wax** (Green Wax)- for glaze resist only! Its the only wax that sticks to glaze already applied to bisque ware.
- **Alumina wax** (ADVANCED STUDENTS ONLY)- wax with alumina hydrate (i.e. kiln wash), for use on porcelain lid seats and for atmospheric firings only!

Your ^10 Reduction Pots: Start to Finish

1. Then you put it on the shelf (labeled “greenware”) to be bisque fired. Once it is bone dry it will be fired to a low temperature (cone 08 or 1800 F) and then placed on the “bisque” shelves. (1 to 2 week lag time) Note: thicker pieces will take longer to dry! The **Bisque firing fee is included with your class registration**.

2. If your piece is to be glaze fired, you have to measure your piece in cubic inches (length x width x height) and multiply that # by .06 cents. This is how you establish the cost to finish fire your piece. If your piece(s) total more than 1200 cubic inches, the price is .04 cents. Once you have established a cost total multiply by .06% MD sales tax. Measure all work first to establish your total cubic measurement—hopefully you reach or exceed bulk totals.

3. Students are asked to place one PAID slip for each work to be fired. Sam will NOT load pots that are not accompanied with a record of payment.
• Once your piece is PAID, place ^10 work on the red shelf that is inside the gas kiln room, against the wall.
• The red shelf MUST BE FULL before the kiln can be loaded.
• Your pieces will be out of the kiln within 5 days of the firing. All finished work can be collected on the green shelving in the gas kiln room. Finished glaze work will be unloaded to the folding tables and mobile cart in this gas kiln room.
• ^10 gas firing takes approximately 18 hours to reach temperature followed by a minimum of 72 hours cooling. Please be patient with the process.

**Baltimore Clayworks ^10 Reduction (stoneware / porcelain) Glazes**
- Val’s Satin Black
- Temoku
- Tomato Red
- Copper Red
- Orange to White Shino
- Malcolm Davis Shino
- Matte Clear
- VC Clear
- Glossy White
- 1234 Celadon
- Yellow Satin
- Haystack Yellow/Brown
- Turquoise Matte
- Sonya’s Blue
- Wensu Blue
- Chun’s Blue
- Mint Satin Green

**Baltimore Clayworks ^6 Oxidation (stoneware / porcelain) Glazes**
- Wollastonite Clear
- Blue Turquoise
- Floating Blue
- Spearmint
- Dixon Satin
- Chun Light Green
- Nutmeg
- Wedgewood Blue
- Wollastonite Black
- Blue/Green Copper
- Red-Pink-Purple-Mauve

**Baltimore Clayworks ^04 Oxidation (earthenware) Glazes**
- Amy’s White
- Nick’s Clear

**The GLAZING process:**
Wash your hands before handling bisqueware. Oil or dirt from your hands can form a glaze resist on the bisque surface. Wash your pots thoroughly! I rinse my pots by dunking them in a large bucket of clean water or by running them under the faucet. Do NOT just wipe the surface with a sponge; this will drag and smear surface grime, increasing your chance of glaze crawl.
Once you have washed the pots you may begin the wax process, let them air dry while the wax is drying – at least 1 hour before applying glaze, better to wait overnight. Wax all areas that will touch the kiln shelf (foot) or touch one another (lid seats/rims). Wax at least 1/8” to ¼” up from the base of the pot to avoid runs (if you place a pencil on its side with the tip touching the base of the pot and rotate the piece you will create a good guideline to follow with your wax brush).

When glazing it is good to have ready:
- 1 bucket of clean water
- 1 small sponge
- stir sticks (1 per glaze)
- 8 oz. containers for pouring glaze (1 per glaze)
- 1 ware board on which to deposit glazed work (so I can move them if they dry slowly)

Note the glaze consistency in the bucket before applying; is it thick, creamy, watery? A glaze should be the consistency of heavy whipping cream. Glazes may become thick as they are used due to heavy usage and evaporation so you may need to add more water to the mix.
Be sure to mix the glaze well, stirring all thick contents from the bottom and sides of the bucket and keep it well sturred in between dips – some glazes settle quickly! Don’t be afraid to use the power mixer located in the basement chemical lab in addition to stirring with your hand. The average glaze application should be full submersion of the piece for 2-3 seconds.
We recommend an “extended” single dips for the following glazes, approximately 5 seconds. This provides a thick single coat without the hazard of a double dip:
Reitz Green   Temoku   Celadon   Easy Copper Red   Mint Satin Green
Yellow Satin

A note on Shino glazes:
Never apply a shino OVER another glaze. This will cause dry blistering and pulling of the glaze surface. “Shino first or the pot is cursed” is a favorite saying. Shino is a terrific example of how application, thickness and firing atmosphere can influence the glaze results. Try dragging your fingertips through the wet glaze, drawing on the glaze surface with Aftosa wax once the surface is dry or applying a slip/wash under the glaze surface.

If you are double dipping or layering glaze be careful, especially near the foot of the pot. Until you fully understand the stability of the glaze combination it is best to keep overlaps contained to the rim and interior portion of the piece.

*It is important to note that glazes will change characteristics when applied to stoneware vs. porcelain clay. The presence/absence of iron in stoneware/porcelain impact the color of the glaze. Glazes may melt easier on porcelain due to the increased silica present in the clay which acts as an added flux to the glaze resulting in a “shinier” surface, richer colors and increased dripping. As a result, a glaze may be dry on stoneware but glossy on porcelain, perfect fit on stoneware and stuck to the kiln shelf on porcelain. For this reason, it is always important to test your glaze combinations before committing all of your work. Small 2” cups/bowls or vertical test tiles are a great starting point for glaze tests.

Don’t forget to sponge clean the bottom of your pot before placing it on the glaze firing shelf! Wax resist alone will not prevent the glaze from bonding to the pot and kiln shelf.

<table>
<thead>
<tr>
<th>Large Cone</th>
<th>F / C</th>
<th>Large Cone</th>
<th>F / C</th>
</tr>
</thead>
<tbody>
<tr>
<td>^018</td>
<td>1322 / 717</td>
<td>^3</td>
<td>2134 / 1168</td>
</tr>
<tr>
<td>^012 - Cherry Red</td>
<td>1623 / 884</td>
<td>^4</td>
<td>2167 / 1186</td>
</tr>
<tr>
<td>^010</td>
<td>1652 / 900</td>
<td>^5</td>
<td>2185 / 1196</td>
</tr>
<tr>
<td>^08 - Orange</td>
<td>1751 / 955</td>
<td>^6</td>
<td>2232 / 1222</td>
</tr>
<tr>
<td>^06</td>
<td>1830 / 999</td>
<td>^7</td>
<td>2264 / 1240</td>
</tr>
<tr>
<td>^04</td>
<td>1940 / 1060</td>
<td>^8</td>
<td>2305 / 1263</td>
</tr>
<tr>
<td>^01</td>
<td>2079 / 1137</td>
<td>^9</td>
<td>2336 / 1280</td>
</tr>
<tr>
<td>^1 - Yellow</td>
<td>2109 / 1154</td>
<td>^10 - White</td>
<td>2381 / 1305</td>
</tr>
<tr>
<td>^2</td>
<td>2124 / 1162</td>
<td>^11</td>
<td>2399 / 1315</td>
</tr>
</tbody>
</table>
Chapter 8

Weights of Clay Needed for Ware Sizes:
A frequently asked question – How much clay do you need to produce a specific pot’s dimension? The table below will provide approximate weight by Lbs. per thrown pot’s dimensions. The precise amount of clay will vary based on how tall you intend to make the foot and how much material do you plan to trim from the finished piece. The larger the pot, the more clay material you will need per cubic inch due to thicker walls to reflect pot’s relative size. It is recommended that you weigh your clay and take measurements of work every time you create in order to better understand and repeat outcomes when making work.

<table>
<thead>
<tr>
<th>No.</th>
<th>Clay weight Lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 oz. Mug</td>
<td>1 ¼ - 1 ½ lb.</td>
</tr>
<tr>
<td>6” Cereal Bowl</td>
<td>2 ½ - 2 ¾ lb.</td>
</tr>
<tr>
<td>12” Cylinder</td>
<td>4 lbs.</td>
</tr>
<tr>
<td>10” Plate</td>
<td>3 ¾ - 4 lbs.</td>
</tr>
<tr>
<td>10” Casserole</td>
<td>5 ½ lbs.</td>
</tr>
<tr>
<td>10” Casserole Lid</td>
<td>5 ½ lbs.</td>
</tr>
</tbody>
</table>

Chapter 9

Useful Vocabulary
Terms You Should Know!

Glossary:

**Bisque:** Clay that has been fired once at a low temperature without a glaze

**Bisque Firing** The low-temperature first firing a clay object which removes chemical water and hardens the ware prior to glazing and glaze firing.

**Bone-ware:** The state of dry clay ready for bisque firing. The ware has had time to dry sufficiently and is devoid of moisture.

**Burnishing:** A surface technique used to smooth the surface of a leather hard clay object usually done with a smooth stone or metal surface.

**Carve:** A surface technique used in decorating clay in its leather hard state, done by cutting into the surface with a needle, loop or knife.

**Ceramic:** Term used for all fired objects of clay. Also term used for field of creating clay objects.

**China Paint:** A low-fired overglaze used over previously fired glazed clay objects for a variety of colors.

**Clay:** A mineral and chemical composite that can be found in nature. When wet, it is
plastic, brittle when dry, and hard when fired.

**Clay Body:** The compilation of materials to create a consistent mixture of various clays. Pre-packaged clays are usually clay bodies formed from many different types of clay to create a desired affect.

**Coil Construction:** Technique of creating pottery or sculpture by rolling out coils and stacking them to create height and width.

**Cone** Pyrometric gauges that melt at specific temperature. Cone 10 equals approximately 2300 degrees Fahrenheit.

**Crawl:** Glaze defect distinctly noted as a roll or folding on itself to reveal bare clay beneath.

**Craze:** Glaze contraction that is greater than that of the clay body resulting in surface cracking of glaze.

**Darting:** As in fabric, cutting to remove a “V” or “willow leaf”, section of vessel which is then rejoined. The result is a narrowing of profile for the vessel.

**Dunting:** Cracking of the glaze fired pottery caused by stresses formed during firing and cooling and significant imbalance between glaze and clay body: weak form, wrong material combination and/or imprudent application of material to match firing.

**Earthenware:** Clay body that is low-temperature fired with a permeable, porous body.

**Engobe:** Colored slip that is applied to the surface for decoration which will vitrify at a temperature equal to the maturation temperature of a clay body.

**Firing:** The process of baking clay to remove chemical water from clay for bisque or to melt glazes.

**Glaze:** A combination of chemicals and colorants that you apply to your piece in a variety of ways in order to achieve a glasslike surface. Please see the glaze room wall for examples. No glaze can be on the bottom of your pots, and when applied too thickly, it will run and adhere your pot to the kiln shelf. Please take your time with the glazing process!

**Greenware:** Dry clay before it is fired.

**Hand build:** To create clay objects using handbuilding techniques such as pinching, coiling, and slab construction.

**High-fire **: The glaze firing for high fire clay. The pieces are loaded into the large gas kiln and fired in a reduction (or reduced oxygen) atmosphere and the clay, at this point (cone 10 or 2300 degrees F.), becomes fully matured, or vitrified (fired to the point of glassification).

**Incised:** A decorative technique of engraving in greenware.

**Kaolin:** Principal component of porcelain. A high-fired natural mineral that has almost no iron that allows for its whiteness.

**Kiln:** A special furnace that is created to withstand extreme heat temperatures in order to fire ceramics.

**Leather-hard:** The state of greenware after some drying. The wet greenware has had time to dry sufficiently to hold its own shape and is ready for altering, if desired.
Low-fire ^04: Some clays mature at lower temperatures and therefore need to be glaze-fired at lower temperatures (clay#417, #104, #103). There are designated glazes for this kind of clay. Pieces are fired in the electric kilns to 1920 degrees F. (or cone 04). If low fire clay gets into a high fire kiln, it WILL melt and make a mess of the kiln, please be wary and know your clay.

Luster: Glaze that is iridescent and/or metallic.

Maturity: The point at which a glaze has reached complete fusion or clay has become completely vitrified.

Overglaze: Glaze applied to a fired clay object and then re-fired.

Oxidation Firing ^6: Firing technique that allows for oxygen in the atmosphere of the kiln while firing to 2230 degrees F (cone 6).

Oxides: Colorants that can be applied before or after the bisque firing, but most effective when applied after the bisque firing. Can also be applied on top of glazes.

Pinching: Technique of creating pottery or sculpture by pinching clay to create height and width.

Plastic: The property of clay that allows it to be shaped and molded easily.

Porcelain: A vitrified white clay body that is translucent. It is the strongest and highest temperature-fired of all the clays.

Press Mold: Technique of casting ceramic ware by pressing a sheet of clay into a mold.

Raku: Firing technique developed in Japan. Ware is placed in red-hot kiln to allow glaze to melt and then quickly removed and placed in a combustible material and covered.

Reduction Firing: Firing technique that removes oxygen in the atmosphere of the kiln while firing. This reducing atmosphere dramatically changes the color of the ware.

Salt Glazed: Firing Technique in which raw salt is introduced into the kiln while firing. The salt vaporizes and acts with the clay body and glazes for a glazing affect on the surface.

Scoring: Scratching into surface of clay in order to join two or more pieces together.

Sgraffito: Clay decorating technique in which slip is applied and then scratched or carved.

Silica: The basic ingredient to glass and therefore all glaze. It is also a primary ingredient to clay. Also known as Flint.

Slab Construction: Technique of creating pottery or sculpture by rolling out flat pieces of clay and joining them to create height and width.

Slip: Clay that is in liquid form. Used for joining two or more pieces of clay together.

Slip Cast: Process of pouring liquid slip into a mold to create objects.

Stain: Ceramic colorants used to color overglazes, china paints, engobes, low-fire glazes, and body colorants.

Stoneware: A vitreous high fired clay body that is in between porcelain and earthenware.
**Terra Cotta**: An *earthenware* body that is red to brown in color.

**Thixotropic**: In clay, the tendency for a fluid that appears viscous under normal conditions to become less viscous when agitated.

**Throwing**: Term used for the process of creating *pottery* on the potter's wheel.

**Underglaze**: A colored *low-fired glaze* that is applied to *greenware* or *bisque* before having an *overglaze* applied.

**Viscous**: Having a thick, sticky consistency between solid and liquid.

**Vitrify**: To *fire* to the point of fusing the silica in the *clay*, rendering the clay body non-porous.