In 1997, I attended a three-week wood-firing workshop at Utah State University with John Neely and Australian potter, Tumblestacking. During his more-than-thirty-year career, Matsumiya has built four-chamber woody kilns and fired them more than 750 times. He currently has two succession layers of ash during the firing. The pots are bisqued to reduce shrinkage in the tumblestack. The wadding I use between the pots is a combination of fireclay, sand, sawdust, and flour. The fireclay allows for a warmer mark on the pot and is applied in shapes that become part of the surface decoration — no perfect little circles.

Matsumiya was seeking a way to achieve work similar to the few pieces created in the rebox of his anagama. In Aomori prefecture, Japan, has developed a unique wood-firing kiln to consistently create ceramic pieces with a very crasty ash surface. He achieves this by burying the work in four crasty ash covering kiln. The pots are bisqued to reduce shrinkage in the tumblestack. The wadding I use between the pots is a combination of fireclay, sand, sawdust, and flour. The fireclay allows for a warmer mark on the pot and is applied in shapes that become part of the surface decoration — no perfect little circles.

Matsumiya has found that using four bundles of wood creates the best results. A bundle is about 4 feet (1.2 meters) long and weighs around 70 pounds (32 kilograms). The bundles are placed on the bottom of the kiln and are side stoked to maintain temperature. The anagama requires eight days of firing; a long time to carefully avoid damaging the ware. On a visit to fellow potter, Kusakabe Masakazu in Miharu, Matsumiya studied Kusakabe’s version of the bourry box hai kiln firing, long pieces of wood are front stoked (he continues to side stoke to maintain temperature). This special report is brought to you with the support of Larkin Refractory Solutions.
Wood Kiln Firing Techniques & Tips
Plans and Instructions for Making a Wood-fired Kiln and Firing with Wood

Since humans first began to understand how fire hardened clay, we have been making ceramics, both in pits and in wood kilns. Now, with so many fuel options available to the potter, wood-fired kilns are more of a choice than a necessity. While wood firing isn’t easy, the results are incomparable. The work in wood kilns reveals the story of the firing, with pieces showing ash deposits and the path of the flame through the kiln. But not all wood kilns are built alike. Some are made for flashing from the flame, some are made for melted rivulets of ash and others still are designed to bury the ware in ash and make it crusty and craggy. Regardless of your wood-firing aesthetic, the wood kiln plans and diagrams in this helpful guide will show you several ways to get started understanding and building wood kilns.

Wood Firing Basics
by W. Lowell Baker
Each wood kiln has its own firing characteristics, but there are some basic principles that hold true for any kiln using wood as fuel. Getting the basics right means better chances for great results.

Low Firing with Wood
by Richard W. James
For thousands of years all ceramics were fired with wood so there’s no reason to think it’s entirely for high fire work. Richard W. James demonstrates what you can accomplish without the melted ash or dramatic flashing while developing a fresh aesthetic utilizing colored slips blended with the subtle effects of flame.

Hai Kaburi: Creating Consistent Crusty Wood-Fire Results
by Lee Middleman
If you want crusty pots in a wood-fired kiln, you almost have to put them in or near the firebox, where they will be exposed to a lot of ash. This kiln design puts the firebox on top of the ware chamber, so the entire kiln load is exposed to ash as if it were in a firebox.

The Manabigama
by John Thies
A cross between an anagama and a groundhog-style kiln, the manabigama is a wood kiln that’s within everyone’s reach. Small, compact and simple to fire, this wood kiln can be fired by one person in a matter of hours—not days.

Glaze Recipes for Latex Resist Patterns in the Wood Kiln
by Courtney Martin
There are a lot of fun tools out there for potters to use to create patterns on their work. Latex resist is an excellent one because, unlike wax, it can be peeled off, so it is great for layering. Add atmospheric firing to the mix and it is even more exciting! Here, Courtney Martin shares her method for making glaze patterns with latex resist and some glaze recipes that work great in the wood kiln!
Wood Firing Basics

by W. Lowell Baker

Each wood kiln has its own characteristics for firing, but there are some basic principles that hold true for any kiln using wood as a fuel.

Wood burns in two distinctly different stages. The first, and most obvious, is the burning of gasses produced when wood is heated. Wood begins to gasify at about 500°F. The second is the burning of the charcoal. This happens, for the most part, after the materials that form the gasses have been driven out of the wood. The coals in your ash pit serve to provide some heat to the kiln and to gasify the freshly stoked wood, mostly through radiant heat energy. As the gasses burn in a wood kiln, they typically produce very long flames. These flames can be easily over 30 feet long. Charcoal produces very hot, but very short, flames. The flame from charcoal is normally less than a few inches long. All of these issues are relevant to building and firing any wood-burning kiln.

One of the demonstrations I take my students through when we begin talking about kiln design is to bring an oxygen-acetylene torch into the classroom. If the torch is ignited with only acetylene (fuel), it produces a very long, very dirty flame. One can quickly pass his or her hand through this flame without any real danger, but it will be covered with black soot. As oxygen is added, the flame shortens and becomes significantly hotter. As the flame shortens with the changing oxygen-fuel ratio, smaller flame tips appear in the center of the flame. This is the place where the flame is the hottest. The more defined the tips are, the hotter the flame. You want this part of the flame in the firing chamber of a kiln, not in the firebox or the flue.

If you have a small kiln and a fuel that develops a long flame, you need to either redesign your kiln to use the length of the flame, or simply shorten the flame to bring the hottest part of the fire back into the chamber where the pots are stacked. As with the acetylene example, the easiest way to shorten the flame and make it hotter is to add oxygen.

If you have electricity at the kiln site, adding a blower is one of the easiest and most controllable ways of adding oxygen.

A small squirrel-cage fan that will deliver about 100 cubic feet of air per minute will supply all the air you will need to fire a small kiln. You can fabricate a bolt-on connector to attach the pipe to the blower, or duct tape a piece of automotive tail pipe to the blower. You should realize that the end of the metal pipe will be subjected to a great deal of heat and will have to be replaced after a number of firings. Place the pipe in the ash pit of your firebox and adjust the air-input damper to the desired air flow. You will find that the flame around the blow pipe will be very intense. This system will allow you to fire your kiln with a much smaller firebox than would normally be needed in a natural-draft kiln. The smaller firebox will require more frequent stoking, simply because it will not hold as much fuel as a larger box.

Increasing the flue height would be the last choice in a small kiln. If you do this, you must be certain that you have air intake ports and a flue cross section large enough to allow easy circulation of hot gasses. A damper will be essential for control. This will be less responsive than a forced-air system and will vary more due to atmospheric conditions, because it depends on lowered pressure to bring air into the kiln.

So, more air shortens the flame and more air increases the temperature of the coal bed to help gasify your fuel more quickly.

W. Lowell Baker is currently Professor of Art at the University of Alabama, and has taught workshops for nearly 40 years.
Low Firing with Wood

by Richard W. James

68 km/sec, 17 in. (43 cm), earthenware, slips, terra sigillata, underglaze, frit, stains, soda ash, wire, fired to cone 1 in a wood kiln, 2012.

Until quite recently (in the grand scheme of things) clay was fired with wood out of necessity, it being the fuel source most readily available. The firing process was a means to an end and the less resources consumed, the better. With the advent of gas and electric kilns, using wood to fire work has become a statement unto itself, encompassing a philosophical as well as an aesthetic choice. Over the years, I have encountered a full range of reactions upon telling someone my preferred method of firing. On one end of the spectrum is genuine interest, probably due to the laborious and (somewhat) exotic nature of the process. At the other end of the reaction scale is a slight nose snarl and what I can only guess is the assumption that everything I make is faux Zen. Part of the reason I was drawn to wood firing was the long, rich, and nourishing history carried in its DNA. But everything has a flip side, and sometimes attributes can turn into unwanted baggage, which is a fact that I have come to live with in all aspects of my life.

A couple of years ago, I came to a decisive point with my work. The results of firing with wood were coming into direct conflict with the surfaces I wanted to achieve. I found excitement in the texture of the unfired clay, only to see those details covered by ash and the overall form softened. What I wanted was to get back a balance that I saw in a green pot—crisp and set, yet still somehow on the verge of malleability. At the same time, though, I was unwilling to give up something as central to my process and studio practice as wood firing.
I have found the use of earthenware to be a good answer, with the possibility to be a great one over time. This change in material and method retains some of the spontaneity of traditional wood firing while opening up the opportunity for color and a more detailed surface that I had been searching for. There is also the added benefit of saving time and resources, both of which are becoming more treasured as I get older. I see many possibilities in using this method, but only if some basic notions of wood firing aesthetics are allowed to go on holiday. There is no melted ash or dramatic flashing, no complete metamorphosis of the object, and, to the experienced wood-firer, an unfinished look. My technique is dictated by aesthetics, but is also searching for a place in a many-thousand-year-old tradition where aesthetics have been shaped by the firing method.

Surface Details

I use a wide array of slips and underglazes in combination with terra sigillatas—some are sprayed on and others are painted on thickly with a brush (1). The square patterns are laid out with graphite and a ruler (2), then painted with underglazes and terra sigillatas to resemble a heavily pixelated photo (3). These pieces evolved from a previous body of work that was investigating the visual and symbolic functions of headdresses. I still like to keep some aspect of an abstracted head woven into the form, in addition to the notion of the world as we see it being constructed inside our heads. Also, almost all we know of the cosmos comes from spectrometry, which imparts information through color. Each square contains its own packet of information that is still to be unpacked. Visually, the squares help to balance out the bulbous and expanding movement of the piece.

I treat some areas with a watered-down black underglaze and then wipe it off with a damp sponge (4). This accentuates the forming marks and reveals the edges and curves in the form.

I have two chalk-line boxes (primarily used in carpentry/construction) that I have filled with a mixture of Ferro frit 3110 and a Mason stain (5). I use them to go back over the marked square patterns and snap lines where they are needed visually (6). It is very helpful to have a third hand here to either hold the line tight or snap it in place. Thanks to the frit, the resulting colored lines are stable after the firing while still retaining a powdery look. This change in texture helps to define the line on an intuitive and visual level. Plus, I enjoy the idea of these boundaries looking porous and unstable.

After the piece is colored and slipped, I go over it with a mixture of Ferro frit 3124 to encourage fluxing in parts of the piece that I think will help balance the form visually (7).

During the construction process, cavities were left in the form. I now take wet clay and form balls to fill up those cavities in order to have a secure placement for the wire (8). I take stake wire (another construction material) and high-temperature wire to make loops that connect from one hole to the other, sticking the ends in the soft clay (9). The stake wire will deteriorate during the firing and sometimes leave faint shadow lines on the surfaces with underglaze.

The entire piece is then dampened and, while wearing a dust mask and gloves, I dust it with dry soda ash (10). The above process is more of a general outline for me to work from, the recipe gets changed each building and firing cycle in the search for an aesthetic set that seems to be a moving target.
The slip is applied to the earthenware by either spraying, pouring, or brushing, then the piece is dried and bisque fired.

A straight edge and a graphite pencil are used to lay out lines of a grid pattern.

A flat brush is used to paint in the squares evenly with either underglaze or a colored terra sigillata.

Watered-down underglaze is first brushed into the cracks and then the excess is wiped off with a sponge.

The chalk box is filled with a mixture of stain and frit. The resulting colored lines are stable after the firing, due to the added frit, while retaining a powdery look.

The chalk line is used to pop lines over the top of the graphite grid between the slips and underglazes. A third hand is very helpful here for snapping the line to transfer the color onto the piece.

Chalk Line Color

Ferro Frit 3110  20%
Mason Stain      80%

The mixture ratio can be varied depending on whether a powdery line or a glossy line is desired.
Low-temperature Wood-firing Advantages

I originally sought an alternate firing method to address several issues dealing with form and surface. Here are some benefits I have found while pursuing this technique:

1. Firing non-vitrifying clay means less slumping and relaxing of the work during the maturing process, something that was negatively affecting my forms.

2. Ash not melting on the clay has several advantages for my work, most importantly, the pieces retain a crispness that shows tool marks and folds in the clay.

3. Firing to cone 01–2 allows me to retain a broader spectrum of colors, using terra sigillatas, stains, and underglazes that typically get washed out at higher temperatures.

4. Working in the field of ceramics is a costly endeavor with both time and resources. Firing to cone 1 can cut the firing time almost in half and the wood consumption by 40–60%. In addition, this practice is not quite as dependent on the type of wood being used. Heat gain here is much less difficult than the last half of a cone 10 firing, where the BTU ratings of specific woods become more crucial. Less wood being used, less gas for splitting wood, and less time spent stacking wood all equal less of a carbon footprint and less backache.

Intentional Surface Treatments in Wood Firing

There seems to be a fine balance when firing earthenware in a wood kiln. Fire too hard and the clay looks burnt and brittle, too light and it shows no record of flame. Since I’m only firing to cone 01–2, I like to keep the temperature rise slow and steady, with any reduction coming...
from the natural cycle of wood combustion. I find aiming for a neutral/ slight reduction atmosphere brings out life in the red clay and slips without turning everything muddy brown. I do not add salt or soda to the kiln, instead preferring to apply the soda directly to the work before the firing. Through the use of frits and soda, I can encourage where slips and stains become more fluxed and use that in an effort to either complement or counterbalance the flame path.

I build loose bag walls and intentionally place dud pots to direct and intensify the flame around my pieces. As with any type of firing, there is a fine line between aggressively channeling the flame and impeding the flow of a ware chamber. Fortunately, the margin of error here is much greater due to the lower temperatures involved when firing earthenware.

A Different Kind of Magic

There is no such thing as a free lunch, and this is no exception. Firing to earthenware temperatures is simply not the same transformative process as a cone 10 firing and contains a different, but not diminished, type of magic. I’m much more reliant on slips and applied colorants to keep from having a very dry and untouched surface. A trap that I had fallen into time and again was waiting for a wood firing to fix a sub-par pot—this method takes that option off the table. The results are less surprising in the final stage, but that is a trade off I am willing to make.

I feel it is of utmost importance to not see this method as a way to sidestep the labor-intensive aspects of a cone 10 wood firing. This is neither an attempt to imitate the effects of another process nor is it a rejection of previous conventions. It is simply an addition to the vocabulary that a wood kiln can produce. Accordingly, it would be a misstep to continue using the same old rubric. True, some conventions will carry over, even some of the basic aesthetics. It would be unreasonable to expect otherwise, but I feel this is an opportunity to explore a different set of aesthetic values than the ones that have been handed down in tandem with wood firing. And ultimately, the shedding of comfortable paradigms is the biggest trade off here.

the author Richard W. James is an artist, currently living and working in Bloomington, Indiana. He will be entering the MFA ceramics program at the University of Kansas in Lawrence, Kansas in the fall. More work and information can be found at http://richardwjames.com.

CME (side A) and detail, 13 in. (33 cm), earthenware, slips, terra sigillata, underglaze, frit, stains, soda ash, wire, fired to cone 1 in a wood kiln, 2012.
Matsumiya Ryoji, a master potter living in Aomori prefecture, Japan, has developed a unique wood-fire kiln to consistently create ceramic pieces with a very crusty ash surface. He achieves this by burying the work in four successive layers of ash during the firing.

During his more-than-thirty-year career, Matsumiya has built fourteen kilns and fired them more than 750 times. He currently has two noborigamas, an anagama with two additional chambers, an Olsen crossfire, an archaeological Sueki, and his new borry box hai kaburi (ash covering) kiln.

Matsumiya was seeking a way to achieve work similar to the few pieces created in the rebox of his anagama. In the firebox, only a small area is effective and the work is subject to damage from stoking. The anagama requires eight days of firing, a long time to carefully avoid damaging the ware. On a visit to fellow potter Kusakabe Masakazu in Miharu, Matsumiya studied Kusakabe’s version of the borry box kiln in which ash drops from an overhead grate in one chamber onto the side of the floor of a second chamber. A few pieces in or near this area developed the appearance Matsumiya sought. The ware must be small to avoid blocking the holes between the chambers.

Thus he decided to design a single-chamber kiln in which low side stokeholes are used to heat and maintain temperature while three high stokeholes located in the front are used to place wood on grates over most of the pieces. Because the work gets covered in the embers from above, top stoking alone is insufficient to ensure watertight vessels and to maintain the temperature to melt the ash. So, after the kiln is brought to a temperature of 2282°F (1250°C) by side stoking, long pieces of wood are front stoked (he continues to side stoke to maintain temperature).

The embers created from the front stoking above fall onto the work.

Matsumiya has found that using four bundles of wood creates the best results. A bundle is about 4 feet (1.2 m) in diameter and 6 feet (1.8 m) long, made up of Sake bottle, 15 cm (6 in.) in height, thrown stoneware (a blend of local Kanayama clay and Shigaraki clay), unglazed, wood fired, by Matsumiya Ryoji.
The kiln door in the center front of the kiln is bricked up for firing. A square in the middle of the kiln door becomes a top stokehole later in the firing (see diagram below). The before-and-after pictures above show the ware stacked under removable brick hobs (left) and the bed of coals (right), produced by top stoking, which covers the ware later in the firing.
As the firing nears completion, Matsumiya adjusts the draft hole in the front of the Hai Kaburi kiln before continuing to side stoke.
¾-inch square (2x2 cm) wood scrap. As each bundle is added gradually, the ash coals completely cover the ware. Then they are allowed to burn down before the next bundle is added. This ash-covering process takes about 24 hours. Top and side stoking are complete when Matsumiya is satisfied with the coverage of final ash. The graph below illustrates a typical firing schedule. As a result, the ware develops melted glaze at the upper surfaces, different colors (gray, brown, black and some blushes), and a crusty finish below. He prefers ash glaze melted on the top third to half of the ware, leaving a rough, crusty and eroded appearance on the remaining lower portion. Constructed of hardbrick, the kiln takes four days to cool. The larger ware is soaked in hot water when unloaded to prevent cracking. Surfaces of some ware, such as sake bottles, are lightly sanded with fine sandpaper to make them easier to use.

Matsumiya now bisque fires most pieces to minimize breakage. The interior dimensions reflect practical considerations. The lumber company scrap is just less than 6½ feet (2 m) long and six hardbricks are 4½ feet (1.4 m) wide, allowing for mortar.

The kiln produces consistent results, but Matsumiya will continue to adjust the firing process to improve the look he prefers.

For more information on Kusakabe Masakazu’s bourry box kiln, see Japanese Wood-fired Ceramics, by Kusakabe and Marc Lancet (kp books, 2005).

the author Lee Middleman is a full-time ceramics artist living in the San Francisco Bay Area. He participates in wood firing in Japan, Korea and China. His website is www.leemiddleman.com.

---

Vase, 30 cm (12 in.) in height, thrown stoneware (a blend of local Kanayama clay and Shigaraki clay), unglazed, wood fired on its side with ash drips, by Matsumiya Ryoji, Aomori, Japan.
For more than thirty years now, I have been building, firing and maintaining various large wood kilns. Almost all of them have been a design taken directly from the chamber kilns used historically around the world. My present kiln is fired seven times a year for my personal work and also for group workshops. The kiln is a 300-cubic-foot cross-draft, with three chambers in the traditional noborigama style. Two of the chambers are used for glaze work and one is used for salt glazing.

I started using this kiln nine years ago for teaching group workshop firings. I schedule three a year, which is all I can manage given the labor and time involved. Each year, the groups enjoy the experience and the work that comes from it, but many ask for additional space in my kiln at other times during the year, which is not possible given my production schedule.

With new ideas in mind, I set out to build a very versatile and efficient wood-firing kiln that could be used by students who had interest in a complete hands-on experience, from the preparation, loading, firing and unloading to the final clean-up phase. I didn’t want to interfere with the successful larger firings, in which students can get a large volume of wood-fired pots without the in-depth hands-on experience. The new kiln would allow me to cut down on the extensive labor, fuel and overhead costs of my larger kiln.

I named the new kiln “Manabigama” at the suggestion of my friend Phil Berneburg, former technical editor for CM. In Japanese, mana means educational or learning, bi means a thing of beauty, and gama means kiln. The Manabigama is a traditional design with a few simple modifications. I see it as a cross between an anagama and a groundhog-style kiln. Basically, it is a cross-draft tube built into the side of a hill.

The overall interior dimensions are 24 inches in width, 7 feet in depth, 40 inches in height. Its firebox is in the front, incorporated into the inside with a grate system, and extra air intakes are built into the front and sides. This is done to provide more secondary air intake to help burn green or wet fuel. The firebox is plenty adequate being 2 feet wide, 2 feet deep and 30 inches high from the floor to ware level. The chimney has inside dimensions of 9 inches deep by 18 inches wide and is 12 feet high. The shape is a long rectangle with two straight, 18-inch-tall side walls and a catenary arch built on top. This creates ample headroom for ease of loading, as well as extra height for stacking and tall pieces.

There is approximately 24 cubic feet of ware space, more than enough for teaching purposes. The kiln door is in front, only halfway down, and is bricked up including the stoke hole. It can be loaded in two to three hours, fires evenly to Cone 10–12 in eight hours tops, or if you choose, you can fire two to three days depending on how much ash buildup you like. The consumption of fuel is also minimal—less than half a cord of wood.

All in all, the Manabigama is a very simple design to build. It is capable of yielding wonderful ash-glazed pieces with a minimum of labor, fuel and overhead costs. And it is a fantastic wood-fired kiln for teaching without the tremendous strain of a large three-chambered kiln.

Thanks to Phil Berneburg, who was instrumental in inspiring me to build this kiln. For further information on Monocacy Pottery, see www.monocacypottery.com.
Thoughts from a Manabigama Guinea Pig
by Mea Rhee

I had attended kiln workshops for several years, and felt I was ready for more. I was looking for a wood kiln that I could try to fire by myself when John called and said, “Come see my new kiln. I think you’re going to like it.” Of course I volunteered to test fire it.

I had help and John was always nearby, but for the first time I was able to manage the entire process, which was my goal for this firing. The kiln’s design is just right for a student at my level. All of its processes are small, straightforward and flexible. I love that there is no barrier between the firebox and the pots, so the pots receive as much effect from the fire as possible. This is my goal aesthetically too.

I am already busy designing pots for my next kiln load. I plan to gain as much understanding as I can each time I fire it, and enjoy every minute of it. This kiln is going to carry me to a point in the future when I’m ready to build my own. And when I get there, I’ll probably build something very similar.

Bottle, 5 in. (13 cm) in height, stoneware with natural fly ash glaze, wood fired to Cone 12 in the Manabigama, by Mea Rhee, Silver Spring, Maryland.
Glaze Recipes for Latex Resist

Patterns in the Wood Kiln

by Courtney Martin

Need to find a few glazes that work well for making patterns, and behave in atmospheric firings? Martin has the glazes you’re looking for.

Developing Patterns Using Latex Resist

First I draw the pattern in pencil onto the platter. Then, I use liquid latex to paint a thin layer over the pattern using a foam brush (1). When the latex is dry, I dip the platter in the first glaze. After the glaze dries, I remove the latex, and paint over the glaze with wax (2). After the wax is dry (I often let it dry overnight, or at least a couple of hours), I dip the platter in the second glaze and wipe away any beads from the waxed surface (3).

Because these glazes don’t really run, the pattern remains distinct after firing (4).

Recently, I’ve pared down to only using three glazes: Casebeer Black, Yellow Salt, and White Salt. They are all common glazes, but the source I used for the recipes was John Britt’s book The Complete Guide to High-Fire Glazes; Glazing and Firing at Cone 10.

Casebeer Black (4)
Cone 10 Reduction
Nepheline Syenite ... 30 %
Albany/Alberta slip (I use Alberta) ... 70%
100 %
Add: Black Iron Oxide ... 1 %
Black MS Stain 6600 ... 15 %

White Salt (4,5,6)
Cone 10 Reduction
Dolomite ... 23.6 %
Nepheline Syenite ... 71.6%
OM4 Ball Clay ... 4.8%
100.0 %
Add: Bentonite ... 4.0 %
Rutile ... 1.1%
Zircopax ... 18.8 %

Yellow Salt (5,6)
Cone 10 Reduction
Dolomite ... 23.6 %
Nepheline Syenite ... 71.6%
OM4 Ball Clay ... 4.8%
100.0 %
Add: Bentonite ... 4.0 %
Red Iron Oxide ... 1.1%
Zircopax ... 17.9 %

I fire these glazes to cone 10 in my wood kiln, and add 4–8 pounds of salt. When I’ve fired these glazes in friends’ kilns, I’ve found that they also like hotter and saltier atmospheres. These are all very stable and I don’t have any trouble with them running.

I add Epsom salts to each of these glazes. I like the way it helps keep the glaze in suspension, and I feel like it makes the glaze stronger after it is on the pot and before it’s fired. Without the Epsom salts, I find the glaze to be dusty and hard to paint wax over.

4 Kuba Platter, 16 in. (41 cm) square, Casebeer Black and White Salt glazes. 5 Star Tray, 13 in. (33 cm) in length, White Salt and Yellow Salt glazes, 6 Salad plate, 8 in. (20 cm) in diameter, White Salt and Yellow Salt glazes. All pieces are made of Starworks’ Okeweemee Medium clay, and are wood fired to cone 10, with 4–8 pounds of salt added.
Lots of Inventory • Lowest Prices

Unparalleled service & refractory design assistance for over 35 years by the folks who truly care about your business

- Firebrick – straights, arches, wedges & tiles
- Insulating firebrick – straights, arches, wedges & tiles
- Ceramic fiber blankets, boards, papers & textiles
- Castables in several insulating & dense compositions
- Mortars, patches & inexpensive coatings
- Nitride & Fines Bonded Kiln Shelves
- Custom Manabigama Kiln Refractory Package

Kiln Furniture GALORE!
ALL SIZES AVAILABLE!

P.O. Box 716, Lithonia, GA 30058
Phone: 678.336.7090 Fax: 678.336.7094
Email: LRS@LarkinRefractory.com
www.LarkinRefractory.com