

## Authentic Italian Wood-Fired Pizza: An Opportunity for American Restaurants to Find a Profitable and Growing Niche

The wood-fired oven is one of the common denominators of Italian cooking. From simple take out restaurants to high-end pizzerias; casual trattorias to sophisticated restaurants, the wood-fired oven is ubiquitous. Whether it is the centerpiece of the restaurant, such as the Antica Pizzeria Dell' Arte in Florence, where their beautiful oven almost reaches out to personally greet each guest, or hidden away in the kitchen, as is the case at our tiny local restaurant in suburban Bagno a Ripoli, the pizza oven is an anchor, cooking pizza, flat bread appetizers, warm antipasti, baked pasta and vegetables. There are even restaurants with two wood-fired ovens – a very hot oven for Pizza Napoletana and a simply hot oven for vegetables and other dishes.

Talking with American entrepreneurs and restaurateurs, and seeing how first-hand how the Italian restaurant scene works, I believe that there is an outstanding opportunity to bring this style of cooking to the states. There are a growing number of wood-fired restaurants and pizzerias in America, and significantly growing awareness of brick ovens and brick oven cooking with both consumers and the media. My view is that the "Real Pizza" trend is just getting started, and represents an opportunity for restaurateurs to identify and capture a profitable niche in their local market.

### An American View of Italian Oven

One of the first things many visitors notice about Italy is that there are pizza ovens absolutely everywhere. I have been a brick oven enthusiast for years, and my desire to learn more about pizza ovens, pizzerias and brick oven cooking were high on my list of things to do during an extended two-year stay here. I already knew that the pizza oven was an essential piece of the country's culinary and restaurant heritage, and I wanted to learn more. I have not been disappointed.

We live in Tuscany, where you cannot go out for the day without encountering a pizza oven. From the local mom-and-pop building supply store around the corner, to Leroy Merlin, the Italian version of Home Depot, pizza ovens are sold pretty much the way Home Depot sells Weber BBQs. They line them up on display, and the inventory is always turning over. Walk through virtually any village and you will find at least one Pizzeria with a Forno a Legna – often in otherwise very unassuming restaurants. And if you ask around, the locals always know where they are.

Our local firewood supply company has 30 pizzerias on their regular delivery schedule – just on south side of the Arno, and there are 1,500 wood-fired pizzerias just inside Naples. In fact, if you take a Sunday drive through the countryside, you are more likely to end up in front of a pizza oven producer than an open supermarket (most stores are closed on Sunday, and there are roughly 300 pizza oven producers in Italy, so the odds are pretty much in favor of the pizza oven). And while most are mom-and-pop business, there are a number of multi-national producers as well.

As everyone will tell you, pizza, like pasta, is an essential part of the Italian diet, and many Italians are passionate about both pizza and pizza ovens. I will never forget when I was installing an oven at our house outside Florence, and both our neighbor and the local gardener walked up and started giving me advice on the best way to install my oven, and their preference of what finish style I should use. My trips to the local hardware stores were equally full of advice and opinions, complete with waving arms and dramatic gestures, on both how to choose the right oven, and how to best install it.

### Wood-Fired Pizza in Italy

Like many things in Italy, pizza and pizzerias change as you travel around the country. Italy has been defined by its independent, and very successful, city-states for hundreds of years, and the country has only been in its modern form since the 1860s and has only been a democracy since the 1950s. The cultural and culinary differences, and rivalries, between different cities and regions are still very pronounced. For example, most Tuscan restaurants feature very little seafood, despite the fact that the Province has a Mediterranean coastline, and Tuscan bread (Pane Toscana) is made without salt – both problems (for me at any rate) a direct result of a long war between Florence and Pisa in the 15th and 16th centuries which cut Florence off from the sea. I have been told that league basketball games between Florence and Siena often end in bloodshed, and have seen that to this day wines local markets tend to treat wines from other regions of Italy as imports, where they enjoy a small place on the shelf next to the French Champagne.

In fact, there seem to be only two things that every Italian seems to agree on – the importance of the national soccer team (Azzurri, or the Blue), and the wood-fired pizza oven.

While the style of pizza changes as you move around the country – both in the style of dough base and toppings, the wood-fired oven is ubiquitous. I have asked many restaurant owners why and when they installed their wood-fired oven (at least when the oven did not appear to be as old as they were), and they consistently answer, with an almost unbelieving look that wonders why I am stupid enough to ask, that it the ONLY way to cook pizza. Opinions vary on dough, throwing the pizza, base thickness, rolling pins, cooking length, oven heat, flour, on what various products are named (Focaccia, Schiacciatta or Pizza), etc., but they all just assume that their oven will be there – just like oxygen.

When I talk with restaurant owners who have electric refractory ovens, and tell them I am interested brick ovens, I see an almost wistful response – “we wish we had one here but our kitchen is too small, the oven was here before we bought the restaurant...”

The wood-fired oven market continues to flourish in Italy, with 15,000 new wood-fired refractory ovens (both commercial and residential) installed every year, and an uncounted number of handmade brick ovens built. I was recently told by two different restaurant owners that there are three well-respected brick oven builders dedicated to pizzerias in Sorrento alone, and that there were many more who were capable of building a

residential oven. To this day, restaurants that install a wood-fired oven experience a 15% increase in sales on average.

### Vera Pizza Napoletana

Perhaps nowhere more than with the Vera Pizza Napoletana movement can we see the Italian passion for pizza. Born in Naples, the movement is dedicated to preserving the product Pizza Napoletana, and in some ways to teaching the rest of the world how an authentic pizza should look, smell and taste. The Italian Ministry of Agriculture has submitted a version of the Pizza Napoletana specification to the European Union for consideration as a *Demonimazione d;’Origine Controllato (DOC)* – a protected food product, much like Chianti, Parmesan, Mozzarella and certain olive oils.

There is also a restaurant certification and branding effort for Vera Pizza Napoletana (VPN), and a growing number of American restaurants have become VPN certified – including a number of high-visibility establishments. There have been a few jokes in the U.S. press about the pizza police, and it is still not clear how well the movement will do outside of Naples, but no one can deny that the movements has made a positive impact – both in bring attention to "Real Pizza" and in helping raise the world-wide standards for pizza. It is important to note that the Pizza Napoletana specification grew out of a meeting of Naples' most venerated Pizzaiolos, who came together to define the perfect pizza. They even signed a public declaration supporting the specification. So regardless of global food politics and the EU, the VPN specification gives us a good idea of what an authentic pizza should be.

Whether you are considering opening a true VPN pizzeria, and will be working exclusively with imported product, such as Tipo 00 flour, Mozzarella di Bufala, Italian Extra Virgin Olive Oil, and Italian San Marzano tomatoes and will be working with a certifying organization, or are planning on opening an Italian restaurant or pizzeria, and want to produce a truly world-class pizza using excellent American bread flour, tomatoes and domestic mozzarella, one of your first steps is the pleasurable task of locating and choosing a wood-fired oven.

### Wood-Fired Pizza in America

While the modern pizza was perhaps born in Naples, and there is written documentation that tomatoes were first used on flat bread in Naples in the 18th century, pizza has grown to new heights in America. After a quiet introduction at the turn of the century, pizza exploded on the American culinary scene in the 1950's in aftermath of the Second World War, and today represents a \$32 billion dollar industry featuring over 60,000 restaurants. Americans eat 350 slices per second – or about 100 acres of pizza per day. We eat 25 pounds of pizza, that's 23 slices, per person per year. Pizzerias represent 17% of all restaurants and pizza 10% of all food service sales.

Still, the larger chain restaurants make up a majority of that pizza, and that part of the market is mature and becoming saturated. As a consumer, pizza lover and brick oven enthusiast, I am painfully aware that there are too few wood-fired pizzerias in America. I heard just the other day that there are more frantoio (olive oils mills) in just about any

twenty square mile patch of Tuscany than in all of California. As a hobby olive tree grower in California, I have had to scour the landscape for an olive oil mill, drive far distances, and pay a steep price for the privilege of using the service. I feel the same way about wood-fired pizza, and know many other pizza enthusiasts who see the same problem. There are far too few authentic pizzerias, they are much too far apart, and often have established themselves in their market and can fairly demand a premium price for their fabulous product.

My view is that this market dynamic presents the American restaurant owner with an excellent opportunity. Under a range of names, including Gourmet Pizza, Nouveau Pizza, Authentic Pizza, Brick Oven Pizza, and Pizza Napoletana, it appears that the "Real Pizza" movement is gaining momentum, both in the minds of consumers and in the press. Unlike some food fads, which were based more on marketing hype than the underlying value of the product (such as Wine Coolers and Frozen Yoghurt), the Real Pizza movement has nearly 2,000 years of history as one of the world's finest food products. Much like England's Real Ale movement and the Micro bakery revolution in America, Real Pizza should be with us for a very long time.

#### A New Development to a 2,000 Year Old Technology

As many have noted, pizza is the most simple of products – a flatbread, potentially leavened using naturally occurring yeast, is covered with a local cheese and olive oil and cooked on a flat, heated rock. It is small wonder that pizza has been a part of our culinary heritage for over 2,000 years.

The wood-fired pizza oven found its "modern" form in ancient Rome, and the ovens uncovered in Pompeii are a testament to Roman engineering. Well design, well built, well insulated and well vented, these ancient ovens were found in shops that remarkably resemble today's modern pizzeria – complete with granite counter tops and insulated terracotta serving trays holding the warm and cold food and drinks that would accompany your pizza. They were, as I have heard others describe, the pizzeria's salad bar. I often wonder if the Roman pizza of the time was better than some of our modern chain store pizza – "I'll have mine with olive oil and camel cheese."

With the fall of the Roman Empire, not much good happened to the brick pizza oven for nearly 2,000 years. In fact, there are some medieval, and even 21st century, brick oven designs that are less efficient than the original ancient ovens. Which in a way makes sense – the Romans has an incredible road system, while it sometime feels as though many modern European roads still follow the medieval cart tracks.

In recent years, after a 2,000-year pause, the brick oven has finally undergone a significant makeover. Using modern refractory technology and production processes, producers have created composite materials that increase oven efficiency and reduce the cost-of-ownership, while still offering an authentic wood-fired cooking experience. Today's refractory materials use refined alumina and tempered, woven silica fibers to boost oven performance.

High tech manufacturing had also contributed lightweight, ultra-efficient insulators that reduce the cost, weight and hassle of oven installation. Originally designs for heat-intensive industrial applications, these products have help propel the wood-fire oven marketplace forward. The days of using expanded clay and sand in oven installation are gone, making it easy to install a wood-fired oven.

In practical terms, today's wood-fired ovens use about 1/3 less wood fuel than a traditional brick oven, and heat up much more quickly. Some ovens can be fired in as little as an hour, compared with the traditional 3 hour, or more, firing time. Equally important, modern ovens do a great job of holding heat, which is important for fuel economy, oven management overhead, and for pizza at lunch – if that is in your plans. Refractory ovens can now hold a temperature of 500F overnight. Unlike early terracotta and natural clay ovens, these high tech ovens have been rigorously designed for a single purpose.

Refractory ovens are capable of quickly reaching and holding 800F+ degrees temperature – enabling them to cook 2-3 minute pizzas all day long. Larger ovens can produce up to 250 pizzas per hour, handling the dinner rush, plus takeout. In fact, the modern oven is never a throughput bottleneck, as it is able to cook as fast as a two-person Pizzaiolo team can prepare.

Finally, today's refractory pizza ovens are built as disassembled kits, which have become the oven design of choice throughout Italy. In addition to enabling producers to provide better price-performance when compared with traditional ovens, the modular oven also simplifies shipping and installation. This is particularly important for U.S. restaurant owners, where shipping a larger oven can cost as much, or more, than the price of the oven itself.

We have all heard story about pizzerias that had to take out walls in order to get their oven into the kitchen – a hassle and cost that simply does not have to happen. A modular oven can be moved and assembled by a team of two in a matter of hours, and can be easily transported to virtually any building site. The modular oven design has quickly become the de facto standard in Italy, and we believe that a similar dynamic will happen in the states.

### Conclusion

In many markets, whether computers or foodservice, there comes a time when the stars line up for a major market shift. My experience with a number of successful networking and Internet start-up companies taught me that great things can happen when the right product and the market opportunity arrive at the same time. The iPod is an obvious example of this phenomenon, where the timing and product mix hit the right cord to propel digital music, and Apple, forward. The key to catching a trend is act like a champion surfer, waiting to catch a wave. If you paddle too far ahead of the wave, you will move slowly forward and miss the wave's power. If you linger behind, the wave will crash over your heat. Yet if you are able to time your ride with skill and luck, the wave will hurtle you forward further and faster than you ever would have imagined.

I believe that we are at that moment for Real Pizza, and that there is an excellent opportunity for those ready to capitalize.