

the perfect pizza

Armed and dangerous,
Jeffrey Steingarten discovers that the most
important ingredient is the heat.
Photographed by Irving Penn.

The dull gray, snub-nosed gun shook slightly in my trembling hand. I held my breath and squeezed the trigger. The laser sight projected a blazing red dot onto my prey. Ah! It was even worse than I had feared!

My gun is exceedingly cool. It is a Raynger ST-8 noncontact thermometer made by Raytek of Santa Cruz, California. From several feet away, you point it at anything you wish and pull the trigger, and it instantly tells you the temperature of that thing within a tenth of a degree. My gun goes up to 1,000 degrees Fahrenheit! Sure, it cost way too much. Yes, I should have used the money to upgrade my footwear instead, or have a makeover. But everyone turns green with envy when I demonstrate my ST-8, especially men and boys, girls maybe a little less.

I have recently been going around New York City, taking the temperature of the best commercial pizza ovens, plus my own ovens at home, gas and electric, and my array of barbecue grills. Do you go through phases when you simply can't get pizza off your mind? I certainly do—and more often than I would care to admit to anybody but you. As you may have guessed, I am going through such a phase right now, a pretty serious one, though I have hopes that I will soon pull out of it. For I feel I am at long last ready to hoist my pizza-making to an entirely new level. I believe I am close to a pizza breakthrough for the American home.

Here's the idea. Pizza is a perfect food. From Elizabeth David to Marcella Hazan, all gastronomes agree. It is high on my list of the hundred greatest foods of the world. Though it is the most primitive of breads—a flatbread baked on stones heated by a wood fire—pizza is today made in pretty much its primordial form on 61,269 street corners in America. In New York City at least, it is still typically handmade, from scratch. Flour, water, yeast, and salt are kneaded into dough, given plenty of time to rise, patted and stretched into a circle, and baked to order in a special oven. A Neolithic bakery on every block—do you find this as astonishing as I do?

I have made thousands of pizzas at home. I have boldly faced the challenges that fate has thrown at me and overcome most of them. The most important thing about pizza is the crust. Toppings are incidental. (At home and in restaurant kitchens, cooks who don't know how to bake a good pizza crust become excessively creative with their toppings to distract you from their fundamental failings.) Over the years, I have spent hours in renowned pizzerias trying to learn their methods. I have experimented with a hundred types of dough and by now have pretty much got it right. And yet my pizzas are not perfect, not even close.

What is the perfect pizza? There are two perfect pizzas. One is Neapolitan. Pizza was not invented in Naples, nor probably in Italy.

AN ANCIENT TREASURE

From Elizabeth David
to Marcella Hazan,
all gastronomes agree.

Sittings Editor:
Phyllis Posnick

But around 1760, when tomatoes replaced lard and garlic as the principal pizza condiment, Naples—both the nobility and the poor—went mad for this ancient flatbread, and learned to bake the best pizza in the world. In Naples, the classic pizza is about ten inches in diameter and $\frac{1}{4}$ -inch thick, with a narrow, charred, puffy, sauceless rim, crisp but tender and light; is made from about seven ounces of dough prepared with soft flour; and is most often topped, very lightly, with tomatoes, garlic, oregano, and olive oil (this is the pizza marinara) or with tomatoes, olive oil, mozzarella, and a leaf or two of basil (this is the pizza Margherita, named in 1889 for the visiting queen of Italy and notable for the red, white, and green of the Italian flag). The mozzarella is usually made from cow's milk, sometimes from water buffalo's milk. In Naples, pizza toppings are not cooked in advance—only by the heat of the pizza oven.

The other perfect pizza is Neapolitan-American. Pizza came to the New World with the arrival of immigrants from Naples just before the turn of the twentieth century. Though Gennaro Lombardi, at 53 $\frac{1}{2}$ Spring Street, received the first known license to bake pizza, issued by the city of New York in 1905, his justifiably proud yet fair-minded descendants believe that Neapolitan bread bakers in New York had been making pizza with their surplus dough for at least the previous ten years. In my experience, the perfect Neapolitan-American pizzas are made in New York City and in New Haven, Connecticut, at the towering Frank Pepe's Pizzeria and Sally's Apizza. (For all I know, the three other cities where Italian immigrants predominantly settled—Providence, Philadelphia, and Boston—are unheralded treasure troves of pizza, but I have never heard anyone brag about them.) Lombardi's reopened several years ago, at 32 Spring Street, where the oven could be repaired by the one company in Brooklyn that still knows how. Through both photographic evidence on the walls of today's Lombardi's and anecdotal proof, we know that Gennaro Lombardi taught Anthony "Totunno" Pero and John Sasso the art of pizza; these men would gain metropolitan and, yes, nationwide renown with their own pizza places, John's Pizzeria on Bleeker Street and Totunno's in Coney Island.

The mystic hand of evolution somehow transmuted the true Neapolitan pizza of 1889 into the perfect Neapolitan-American pizza of today, which is wider, heavier, thinner, crisper, and chewier; made with high-protein bread flour; and topped with lavish quantities of cooked tomato sauce, thick slabs of fresh cow's-milk mozzarella, olive oil, and most often—36 percent of the time—pepperoni, an innovation of the 1950s and still America's favorite topping, for which there is little excuse. The perfect Neapolitan-American crust is about $\frac{1}{8}$ -inch thick. Viewed in cross section, the bottom $\frac{1}{2}$ -inch is very crisp and nearly charred. The next $\frac{1}{2}$ -inch is made up of dense, delicious, chewy bread. And the top $\frac{1}{8}$ -inch is slightly gooey from its contact with the oil and sauce. The outer rim is shot through with huge and crunchy bubbles. This is the crust I have been after for as long as I can remember.

Serious pizza places here and in Naples have brick ovens fueled either by wood or, in New York City and New Haven, by

coal—large hunks of shiny, blue, bituminous coal. Authentic Neapolitan pizzas take from 80 to 120 seconds to bake, authentic Neapolitan-American pizzas maybe five minutes. Mine take fourteen minutes. It seems obvious that what stands between me and perfect pizza crust is temperature—real pizza ovens are much hotter than anything I can attain in my own kitchen. Lower temperatures dry out the dough before the outside is crisp and the topping has cooked.

I have confirmed all this with my new Raynger ST-8. At La Pizza Fresca Ristorante on Twentieth Street, for example, the floor of its wood-burning brick oven measures 675 degrees Fahrenheit; the back wall (and presumably the ambient air washing over the pizza) clocks in at 770 degrees, and the domed ceiling at 950 degrees. The floor of Lombardi's coal oven pushes an amazing 850 degrees a foot from the inferno, cooler under the pizza itself. My ST-8 and I have become inseparable.

I have tried a wide variety of measures to reach such breathtaking temperatures. To a layperson, some of these measures may possibly

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appear desperate. I own a creaky old restaurant stove with a gas oven that goes up to 500 degrees Fahrenheit, no higher. The hot air is exhausted through two vents in back. What if I blocked the vents with crumpled aluminum foil and kept the hot air from escaping? This test was a failure. As I could have predicted if I had had my wits about me, the oven's thermostat quickly turned down the flame as soon as the hot air I had trapped triggered it.

How to defeat the thermostat? More than once, I have with great success taken apart my stove. Putting it back together is the hard part, and over the years I have squandered many times the price of my Raynger ST-8 noncontact thermometer by paying the extortionate fees of the restaurant-stove-repair-and-reassembly company. This time, I had a better idea. Way in the back of the oven you can see the thermostat's heat sensor, a slender rod spanning the opening to the exhaust vents. How, I wondered, could I keep this bar artificially cold while the stove tried harder and harder to bring up the temperature, thus exceeding its habitual 500-degree limit? I folded together many layers of wet paper towels, put them in the freezer until they had frozen solid, draped them over the temperature sensor with the oven set to high, shoveled in an unbaked pizza, and stood back.

The results were brilliant, especially in theory. My oven, believing incorrectly that its temperature was near the freezing point, went full blast until thick waves of smoke billowed from every crack, vent, and pore, filling the house with the palpable signs of scientific progress. Yes, the experiment had to be cut short, but it did last longer than the Wright brothers' first flight. Inside the oven was a blackened disk of dough pocked with puddles of flaming cheese. I had succeeded beyond all expectations.

And not long afterward, I slid a raw pizza into a friend's

electric oven, switched on the self-cleaning cycle, locked the door, and watched with satisfaction as the temperature soared to 800 degrees Fahrenheit. Then, at the crucial moment, to defeat the safety latch and retrieve my perfectly baked pizza, I pulled out the massive electrical plug and, protecting my arm with a wet bath towel, tugged on the door. Somehow, this stratagem failed, and by the time we had got the door open again half an hour later, the pizza had completely disappeared, and the oven was unaccountably lined with a thick layer of ash. I felt that I was onto something here, though as with the controlled use of the hydrogen bomb, the solution may remain elusive for many years.

Then came the breakthrough. The scene was the deck of my Southern California house. The occasion was the shakedown cruise of my top-of-the-line, hulking, rectangular, black steel barbecue, which has a vast grilling area measuring an enviable eighteen by 30 inches. I had built my inaugural fire, using hardwood charcoal and wood chunks. (Gas does not burn hot enough.) The massive hood was down, and the built-in thermometer read 550 degrees Fahrenheit. And then it struck me: Why not double the fuel, the wood and the charcoal? Why not 650 degrees? Why not 750? Why not pizza?

I dashed into the kitchen and hastily prepared my recipe for pizza dough. After the mandatory three-hour rise and one hour's refrigeration, just as the sun was setting over Charles A. Lindbergh Airport, I built a massive fire using eighteen pounds of hardwood charcoal, two bulging bags that filled the firebox to overflowing. In 45 minutes, when gray ash had covered the charcoal, I lowered the hood and watched the thermometer climb to 600 degrees—and go no further! Where had I gone wrong? I opened all the air vents and the large front door that lets you add fuel and remove ashes. Huge volumes of oxygen flowed in, and bingo! The needle climbed past the 700-degree-Fahrenheit red line and into uncharted territory. Using oven mitts, I fitted a thick round baking stone onto the grill, waited for advice from my ST-8, slid a raw pizza onto the stone, and lowered the hood. This is when I learned that a pizza stone can get much hotter than the air around it if you put it directly over fire, causing the bottom of the pizza to burn to a crisp before the top is done. I also learned that when your ST-8 noncontact thermometer tells you that the barbecue grill has reached 900 degrees Fahrenheit, the electrical cord of the rotisserie motor you slothfully left attached to the bracket on one side will melt like a milk-chocolate bar in your jeans pocket or, more aptly, like the huge plastic all-weather barbecue cover you carelessly left draped over the bottom shelf.

These were mere details, for victory was mine. And it can be yours as well. If you scrape the fiery coals to either side of the baking stone, taking care not to singe your eyebrows again, you can reduce the stone's temperature to the ideal 650 degrees Fahrenheit while keeping the air temperature directly over the pizza near the perfect 750 degrees Fahrenheit or even higher. Use all the hardwood charcoal you can carry, and between pizzas, add more to maintain the heat. Just before you slide the pizza onto the stone, throw some wood chips or chunks onto the coals to produce the aromatic smoke of a wood-burning oven near the Bay of Naples. And in the light of day, feel no regrets that you have burned the paint off the sides of your barbecue and voided the manufacturer's limited warranty. Although the procedure was tricky, three out of four of the pizzas that emerged from my barbecue were pretty wonderful—crisp on the bottom and around the very puffy rim, chewy in the center, artfully charred here and there, tasting of wood smoke.

Very little time had passed, however, before I became uneasy and discontented once again. How could I complacently feast while others went without? Very few American families possess my monstrous barbecue. How could I bring my pizza breakthrough to the average American home?

It was time to exhume my Weber Kettle, which without a moment's research or hesitation, I knew to be the most popular charcoal grill in the country. As I had long ago discovered that the Weber Kettle (which lacks a mechanism for raising and lowering the fuel or the grill, admits only a trickle of oxygen when the cover is closed, et cetera, et cetera) is of extremely limited use for cooking, I had exiled it to the garage, where it held two 50-pound bags of French bread flour, the gems of my collection, off the moist concrete floor. Despite the vast amounts of ingenuity that I brought to bear in half a day of exhaustive tests, I simply could not get the Weber Kettle to heat the air above the baking stone to anywhere near the desired heat. Back into the garage it went.

By all means, experiment with your own charcoal grill. Like me, you will not regret the hours and days spent on backyard exploration. And to forestall the obloquy to which you may be subjected if the results are not good enough to eat, remember to make a double dose of dough and to preheat the oven in your kitchen as a backup. Indoor pizzas will still be awfully good. Rudimentary instructions follow.

NEAPOLITAN-AMERICAN PIZZA

2 lbs. (about 6½ cups) flour, half all-purpose unbleached and half bread flour, both preferably King Arthur brand (see note at end)

1½ tsp. SAF instant yeast or 1½ tsp. active dry yeast

1 T. plus 1 tsp. salt

¾ cups cold water

6 T. extra-virgin olive oil

½ cup cornmeal or semolina

1½ cups tomato sauce or crushed, drained canned plum tomatoes

½ lb. fresh cow's-milk mozzarella, cut into 12 slices

1½ tsp. salt (or 8 tsp. grated Parmesan)

Special equipment: an electric mixer suitable for kneading dough; a thick ceramic baking stone, round or square, with a minimum dimension of fourteen inches; a wooden peel (a flat paddle for transferring unbaked breads and pizzas) or rimless baking sheet.

With a wooden spoon, stir together the flours, yeast, and salt in the mixer bowl. Pour in the water and stir until the ingredients come together into a shaggy dough. Mount the bowl on the mixer, and attach the beater (not the dough hook—this dough is too wet for conventional kneading). Mix on slow speed for about a minute, then increase the speed to high, and beat for three and a half minutes, scraping down the beater and bowl halfway through. Here is a good way to tell when the dough is properly developed: With well-floured fingers, pull off a piece of dough about the size of a walnut and roll it in flour. You should now be able to stretch it between the fingers of both hands into an unbroken sheet at least three inches across.

Scrape and pour the dough onto a heavily floured work surface. (The only way to handle dough as moist and soft as this is to keep your fingers, countertop, and *(continued on page 270)*

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the dough itself very well floured; whenever it sticks to the counter, use a metal pastry scraper, a long, wide knife, or even a paint scraper to detach the dough without pulling and tearing it more than you have to.) Fold the far end toward you so it encloses the dough. Let it rest for about ten minutes.

With a dough scraper, divide the dough into four equal pieces. (Each will weigh about fourteen and a half ounces.) Shape each piece into a smooth ball. Place three of the balls on well-oiled eight-inch plates, generously dust their tops with flour, and cover loosely with plastic wrap. Put the fourth ball into an oiled, one-quart glass measuring cup and cover tightly with plastic wrap. Let rise at warm room temperature until the balls have doubled in volume, which should take from three to four hours. You can tell that the ball of dough in the measuring cup—and presumably the other three—has doubled when its volume reaches three cups. Now refrigerate the balls of dough—for a minimum of one hour, an ideal of three hours, and a maximum of 24 hours—until you are ready to make the pizzas.

At your own risk and following the procedure described in the text, prepare your outdoor grill to achieve a temperature of 750 degrees Fahrenheit, regardless of the warranty, which you will certainly void. Clear an area in the center of the coals, and place a heavy baking stone over it.

Alternatively, preheat the oven in your kitchen for at least an hour to its maximum temperature, 500 or 550 degrees Fahrenheit, with your baking stone inside. In a gas oven, the baking stone goes right on the metal floor of the oven, or in an electric oven, on the lowest shelf.

Set the peel on a level surface, and dust it with about two tablespoons of cornmeal. Remove from the refrigerator as many of the four balls (now disks) of dough as you intend to transform into pizzas. Remove one of the rounds of dough from its plate or measuring cup and pat it into a neat, eight-inch circle. Now stretch the dough around the circumference of the circle (the center will take care of itself) by draping it over your fists, knuckles up, and passing it from hand to hand with most of the dough still resting on the counter—until the circle of dough reaches a diameter of about twelve inches. With your fists still under the dough but held apart, quickly bring the circle of dough over to the peel, plop it down, and pull it into a neat circle from twelve and a half to thirteen inches across.

Put a heaping quarter-cup of tomato sauce or crushed, drained canned tomatoes in the center of the pizza, and spread in all directions with the back of a wooden spoon

to within one and a half inches of the rim. Sprinkle with freshly ground pepper. Arrange three slices of mozzarella over the tomatoes. Sprinkle with a generous $\frac{1}{2}$ -teaspoon of the salt or two teaspoons of the Parmesan. Drizzle with one and a half tablespoons of the olive oil. Shake the peel back and forth to see that the pizza is not sticking to it. Bake immediately: Open the oven door, place the leading edge of the peel just short of the far edge of the baking stone and at about a 45-degree angle to it, and by a combination of jerking and pulling the peel toward you, slide the peel out from under the pizza. This will be difficult at first, child's play with practice.

Bake for ten to fifteen minutes (rotating the pizza after seven minutes so that it will bake evenly) until the rim of the pizza is well browned, the topping is bubbling, and the cheese is golden brown; the underside should be crisp and charred here and there. Cut into sections with a scissors or a pizza wheel.

Note: I have called for King Arthur flour because it is of good quality and widely available in supermarkets and at (800) 827-6836. Flours differ widely in their ability to hold water, which depends largely on their protein content. (Protein also determines the ideal mixing time.) If you use the flour I use, your results should be similar to mine. The combined protein level of these two flours is 12.2 percent; if you especially like a particular bread flour having about 12.2 percent protein, by all means substitute it for both King Arthur flours. If your preferred flour has more or less protein than 12.2 percent, increase or decrease, respectively, by a few tablespoons the amount of cold water you add. □