

# INTRODUCTION TO **Artisan Bread**



What exactly is artisan bread? Picture someone working entirely by hand for several days with stone-ground organic flour, wild yeast starter that's been nurtured for weeks (or even years), pure spring water and sea salt. The baker skillfully mixes, kneads, ferments, shapes, ferments some more and finally scores symmetrical cuts into the dough. The rustic loaves, ripe and ready for baking, go into a wood-burning brick oven on a long-handled peel. The kitchen is hot and filled with a tantalizing aroma, while the loaves rise even more in the oven, and then finally emerge—perfectly burnished and delicious.



IS THAT ARTISAN BREAD? It certainly is. Is that the only way to do it?

No.

You can make fine artisan bread at home, without being an expert. All it takes to make a quality loaf of bread is the knowledge of ingredients, equipment and techniques that you will learn from this book. Most home bakers don't have a fancy brick oven, and many people stiffen up at the mere mention of the word yeast. The words *sourdough starter* can make the blood run cold. Maybe you are one of those people thinking, "Who me? I can't control yeast. And besides, who has time for that?"

For one thing, commercial yeast is easier than ever to use. Thanks to the development of instant dry yeast, you can blend the yeast granules with the flour you are using and you don't have to proof it first. Then, it's just a matter of controlling the temperature. It is simple enough to use a thermometer to determine the room temperature. If it is hotter or colder than usual, you can adjust the temperature of the liquids you are using so that the yeast is within its comfort zone. Now, who is in control? You. You are a fully evolved human. You can conquer a single-celled organism.

If you think baking bread will be hard to fit into your schedule, there are lots of ways you can do it. Many doughs—such as pizza and sweet rolls—benefit from being mixed the night before and allowed to slowly ferment in the refrigerator until the next day, which often can make meal preparation easier as a portion of the meal (the dough) is prepared in advance. Or you can choose to prepare a dough that does not require a prolonged fermentation period and with just the basics: flour, water, yeast and salt; within a few hours you will be pulling a crusty, satisfying loaf out of the oven. Perhaps you've found the time to bake bread at home by using a bread machine. There is no shame in that. But now you may want to take the next step, and this book is here to hold your

hand. Or maybe you used to bake bread and want to get back into it again, perhaps try your hand at that elusive sourdough? You can do it! Have a good time. The last thing baking bread should be is stressful or onerous. There are too many things in life that are not fun, and bread baking should not be one of them. Let the process of baking and breaking bread add enjoyment to your life. If you can't shake the memory of past disasters, then try to look at it in a different way. Instead of feeling scarred by "failures," let what you've learned motivate you.

## A Brief Overview of Bread

If you are new to bread baking, some of the above-mentioned terms may sound unfamiliar. Here is a summary of what happens during the bread-making process, with more detail to follow in later chapters.

There are four basic elements of bread: flour, water, yeast and salt. When wheat flour is combined with water or another liquid, the two proteins contained in the wheat combine to form **gluten**. As the dough is alternately worked and allowed to rest, the gluten gradually goes from being a shaggy mass to forming long, stretchy strands. During the rest periods, known as **bulk fermentation**, the yeast is busy **fermenting**, meaning it consumes the sugars in the flour and creates ethyl alcohol and carbon dioxide gas. As these gases expand, the stretchy gluten formed by the wheat is able to both trap the gas and expand with it.

Periodically, the dough should be folded, never "punched down," contrary to what you may have heard or done before. **Folding** achieves at least four things, listed here in sequential order: 1) it expels some of the gases and provides more oxygen; 2) it redistributes the yeast's food supply; 3) it equalizes the dough's temperature;

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## FINDING THE BAKER WITHIN

Bread baking lends itself to all personality types. If you are a perfectionist or tend to be analytical, this trait comes in handy when you need to keep track of temperatures and times, and when you are trying to make symmetrical shapes. If you are more of a right-brain person, you can let

your intuition take over, sensing when it's time to move on to each step. But don't let genetics restrain you. Who says you have to be one thing or the other? Baking is an art and science that calls upon all your facets. The artist in you may be overtaken by the heady perfume of a well-

balanced sourdough starter. The scientist in you may find it cool that you can apply a formula to something and it actually works. Relax, and let yourself become one with the yeast. Marvel as the gluten strengthens and develops. Bread really is one of those everyday miracles.

## WHY BAKE BREAD?

Baking and eating a good-quality loaf of bread links you to something humans have been doing for thousands of years. There is a reason wheat has long been referred to as the “staff of life.” In ancient times, in the area of the Middle East known as the Levant, wild grasses that were the precursors of wheat were harvested and used as nourishment when other foods could not be found.

At around 4000 BCE, the Egyptians invented what we now think of as bread baking. It was probably by accident: Someone may have left flatbread dough sitting for too long, saw that it had puffed up, baked it anyway and liked the result. It wasn't long before special ovens were created and a wide range of bread types evolved. People also learned that reserving a piece of the previous day's dough could help leaven the next batch, and that fermented beverages such as beer could also serve as leaveners. Bread was made

in essentially the same way for centuries. It wasn't until the 1800s, however, that bakers understood the role of yeast.

In modern times, commercial yeast was developed. Flours changed: It became easier to separate the bran from the white flour, and flour was bleached to prevent millers from having to age their product, so that they could get the flour to market faster. (Flour had been previously aged to allow it to oxidize naturally, which enabled it to hold moisture; see “Why the Flour You Choose Makes a Difference” on page 14.) Eventually, however, bakers learned that nutrients had to be added back in to the flour to prevent vitamin deficiencies in consumers. The advent of mechanized bakeries, including bread-slicing machines, meant that human hands could have almost no contact with the product. Bread was convenient and in good supply, but the quality had changed for the worse.

Nowadays, there are lots of people who try to avoid eating bread, either because they think the carbohydrates found in it will pack on the pounds, or because they just haven't found a bread as high in quality as they like. The “convenient”-style breads still abound on grocery store shelves, but there is a greater range of products now—many of which contain whole grains. If you are lucky enough to live near a good bakery, it may be easy to obtain quality bread made in the timeless artisan style. Then of course, there is you. You can make fine artisan bread yourself, once you know how.

For those who are carbohydrate conscious, try thinking of it this way: If there are no health reasons stopping you from eating bread, you can always enjoy it in moderation. Just cut a thinner slice, or eat only one roll. A little bit of something good is better than a lot of something bland, or nothing at all.

and 4) it promotes gluten development. Once the bulk fermentation period is over, the dough is **divided** into roll-sized portions or individual loaves. There are several reasons for making enough dough to divide. It tends to be easier to work with a double-sized portion of dough and, if you are already going to the trouble of making bread, you might as well get more than one loaf out of it. You might even want to make more than one type of bread, if you are in the kitchen anyway.

After **dividing**, the dough is gently coaxing into a precursor of its final shape in a process called **preshaping**. Next it is allowed to relax once more in a stage that professionals call **bench rest**. Then comes the **final shaping** (i.e., into a round *boule*, blunt *batard*, or elongated *baguette*), followed by **final fermentation**, also known as **proofing**, where the shaped dough rises one last time. During final fermentation, the dough is covered to ensure it does not form a skin, so that the bread can expand to its fullest potential during

baking. Alternatively, the dough can be put into a **proof box** at this stage, where the right temperature (85–90°F) and humidity (about 80 percent) help it to expand without forming a skin. Just before baking, most breads are scored with a razor (or **lame**). **Scoring** is done to help control where the crust will break, and, in the case of rye bread, to help the loaf expand more than it would otherwise.

Once the loaf goes into the hot oven, the yeast has a last hurrah and the dough rises one more time, in a phenomenon called **oven-spring**. (Many professionals use steam at this point. You will learn how to do this at home in later chapters.) When the temperature of the dough reaches about 140°F, the yeast dies off. As the internal temperature gets hotter, the starches form a firm structure, the alcohol is expelled and the sugars in the crust help it to become brown. For larger loaves of enriched bread (1 pound or more), the bread is done once it has reached 195–205°F inside and has developed a rich golden color. To check the doneness of lean breads, we check for

crust development and color as well as a hollow-sounding thump when the loaf is tapped on the bottom. The finished loaf is then pulled out of the oven to cool before eating.

## Bread Styles

The most basic breads contain just the four simple ingredients of flour, water, yeast and salt. These are referred to as lean breads and tend to have crusty exteriors, such as a baguette. Enriched breads are ones in which fats and/or sugar have been added, such as milk,

eggs, oil, butter or shortening. Good examples of these are challah, which contains egg, sugar and oil; and brioche, made with egg, milk, sugar and butter. Lean and enriched breads sometimes contain what professional bakers used to call garnishes, but now refer to as inclusions, which are mixed into the dough. These can include presoaked grains, chunks of cheese, sautéed vegetables, dried fruit, olives or nuts, to name a few examples.

Basic **flatbreads** may contain yeast (pizza being one of the most popular), or no yeast at all, in the case of corn or flour tortillas. Breadsticks, pita, naan and lavash also fall under the flatbreads category.

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## HOW TO USE THIS BOOK

When you get a new cookbook it's natural to want to jump right in and start making something from it. But if you are a novice baker and want to have a reasonable chance at having success, you should give yourself time to read through the chapters in this book first. Absorb the techniques and the rationales behind them. Knowing why something is recommended is half the battle. The information you glean can help you make informed choices on your baking journey.

Here are some points to consider:

### WEIGHING IS BETTER THAN MEASURING

Many home bakers rely on measuring cups to portion out their recipe ingredients by volume. It is probably what you were taught to do, and it may seem to work well enough. Professional bakers, however, are always looking for consistent results and they search for various ways to control the end product. Knowing that the amount of flour in a measuring cup can and does vary (due to humidity, settling, how and when the flour was milled, the type of cup being used and the

way the cup was filled), professional bakers remove those variables by weighing their ingredients. Since they use scales to do this, it is called *scaling*. Scaling is more accurate and is the recommended method in this book. (For more information on how to use a scale, see page 27.) If you don't have a scale or aren't ready to give up your measuring cups, volume measurements are also provided in the recipes.

### BAKERS' PERCENTAGES

As mentioned above, professional bakers tend to be very exacting and often rely on mathematical formulas to help them produce large volumes of baked goods. One way they do this is with an ingenious set of numbers called "Bakers' Percentages." You may never want to bake bread for forty people, but you may want to slightly scale up or down the number of servings in a recipe. Here's how it works: Since flour is usually the major ingredient in bread, bakers refer to the total amount of flour in the recipe as 100 percent. If you are using half as much water as flour in the recipe, then your water would be 50

percent, salt might be 2.3 percent, yeast might be 0.8 percent and so on. Because the flour is always 100 percent, your total percentage will add up to more than 100 percent. Once you have the percentages worked out, you can use them to scale a recipe up or down. Looking at the Bakers' Percentages column in a recipe is also a good way to assess the type of bread you will be making. Some breads, such as brioche, will contain a high percentage of fat (an enriched dough) compared to a baguette, which has no added fats (a lean dough).

### USE MALTED BARLEY

Malted barley is called for in many of the recipes in this book (as malt syrup). Non-diastatic malted barley contains an enzyme that helps break down the flour's carbohydrates into sugars, making them more available to the yeast. This allows the yeast to do a better job fermenting, generally making for a lighter and tastier loaf of bread. It also helps the bread's color. Diastatic malted barley does not contain enzymes and won't work the same way. If you can't find non-diastatic malted barley

Then there are breads using **preferments**. This is a fancy way of describing a range of methods (including sourdough) where flour, water and yeast (either wild or commercial) are allowed to ferment for a longer period of time before being added to the actual bread dough. Preferments require more time than **straight development** doughs, where the whole process takes only a few hours. The payoff from using a preferment is a more complex taste, better texture and better keeping properties for the bread. Think of the differences between a slice of plain white bread and a slice of sourdough. One is straightforward, while the other has more depth of flavor and a more interesting texture. Chapter 6,

Advanced Artisan Bread Making (page 114), will break down the various preferment techniques and their best uses, including **pâte fermentée** (pronounced the French way: PAHT fehr-men-TAY or just PAHT FUR-ment), **sponge**, **biga** (BEE-gah), **poolish** (poo-LEESH) and the aforementioned **sour**.

Sounds complicated? Maybe you want to put down this book and just go buy some bread. Well, eating bakery-made bread while you learn about making bread yourself is not actually a bad thing. Just keep reading, keep trying and give yourself a chance to learn. Start with something simple. Once you get comfortable, you can go on to create a vast array of breads. There is no limit to what you can do.

right away, you can make the bread recipes without it. Once you locate it, however (see Resources, page 332), you will see a difference. It comes in syrup or powdered form. You can use either. The syrup should be added to your liquids. The powder should be mixed in with the flour.

#### USE INSTANT DRY YEAST

We recommend instant dry yeast for the recipes in this book. It comes in packets or in bulk, and does not require proofing in warm water before you use it. You simply mix it with the flour before adding other ingredients. Instant dry yeast is often labeled as “Bread Machine Yeast” or “Rapid Rise.” If the label isn’t clear, check the instructions for how to use the yeast granules. If they say to combine the granules with the dry ingredients, you’ve found the right yeast. Unlike “active” dry yeast, instant dry yeast will not make your bread turn out gummy. (For more detailed information on yeast, see pages 15–16.)

#### USE A THERMOMETER

Successful bread making requires controlling the dough’s temperature so the

yeast can have an ideal environment in which to ferment. The easiest way to do this is to control the temperature of the liquids in your recipe. A long-stemmed instant-read thermometer is easy to use and doesn’t have to be expensive to do the job. Some people like probe thermometers that come with a timer (see Resources, page 332).

#### PREHEAT AT A HIGHER TEMPERATURE

The recipes in this book call for preheating your oven from 25–50°F higher than the temperature at which you intend to bake. Here’s why: When you open the oven door to load your bread, it can take a minute or two to get it in there, and a considerable amount of heat is lost while the oven door is open. Preheating at a higher temperature can compensate for this loss of heat. Once the bread is in and the oven door is closed, you can adjust the controls to the lower baking temperature and your oven will be hot enough from the start.

Before you even get to the baking part, though, it helps to know your oven. Read the manual if you haven’t already, to see how it works. Use an oven ther-

момeter to test for hot spots. If something seems off, have a professional come to service the oven.

#### STEAM

Some of the recipes in this book instruct you to steam the bread once it’s in the oven. You may wonder whether you really need to do this, especially if—like most home bakers—you do not have a steam-injected oven. Steam, in the early stages of baking, helps prevent the crust from forming too early, therefore allowing the bread to rise as high as it can. Steam also makes for a better-quality crust that is thin, crisp and glossy. It’s easy to get steam into a regular oven: Select a cast-iron skillet or an old rimmed cookie sheet that you don’t mind warping. Fill it halfway with water and place it in the bottom of the oven while you are preheating, or for about 15 minutes before you plan to bake. This will produce steam when you need it. Using ice cubes by throwing them into a hot pan just as you put in the bread is not recommended. They don’t melt fast enough to produce the steam you need for oven-spring.