San Francisco Baking Institute

What's Rising

San Francisco Baking Institute Newsletter • Spring 2005

lamination: layers beyond imagination

by Jeffrey Yankellow - Baking & Pastry Instructor

Jeffrey Yankellow
Baking & Pastry Instructor

Often the difference between a *good* croissant and a *great* croissant lies in the details. A great artisan croissant has the flavors and aromas of long fermentation; smells and tastes of high quality butter; and has a deep golden brown color. And, most importantly, a great croissant is light and flaky. The thin delicate crust should be in balance with the moist, honeycomb interior. The weight should be fairly light relative to the volume, and the layers of dough should be clearly visible along the rolled edges of the pastry. There are many factors that lead to the perfect croissant, starting with the choice of ingredients, mixing methods and fermentation schedule. But the defining moment is often the one that takes the most effort: the process of lamination.

What is lamination? Lamination can be described as the process of layering fat and dough through a series of folds, to achieve a flaky structure and increased volume. The result is a light, flaky pastry that is hard to match in terms of pure, simple goodness. Any type of dough can be laminated, but the most common and familiar are croissant, Danish, and puff pastry. Brioche is joining that list but is often overlooked for its more traditional form.

"The fine arts are five in number, namely: painting, sculpture, poetry, music, and architecture, the principal branch of the latter being pastry."

Jean-Anthelme Brillat-Savarin (1755-1826)

Assuming the rest of the process is done properly, the better the lamination, the better the pastry. Lamination is not difficult, but, just as with any other part of the baking process, it is attention to detail that makes the difference. Ideal flakiness is created when many layers of dough are separated by thin layers of fat. The fat creates lightness because the water in the fat creates steam, which helps "lift" the layers. For un-yeasted laminated dough, such as puff pastry, steam is the sole source of leavening.

What a great idea!

There is no concrete evidence of when lamination became a standard bakery process. One of the most well-known laminated pastries, the croissant, wasn't originally made from a laminated dough. It originated in Austria, but was not laminated until the 1920's by French pastry chefs looking to improve the quality.

It is also interesting to note that Western civilizations are not alone in using lamination for pastry. One of the fundamental Chinese pastry doughs is a flaky pastry that uses lard or oil and a similar technique to accomplish the same goal of layering dough and fat to create a crisp and delicate encasement for a sweet or savory filling.

Where to start

The best place to start to explain lamination is to establish some standard principles. Laminated dough can be yeasted or non-yeasted, but the fundamentals are the same for both. Examples of the yeasted are croissant and Danish. Puff pastry is the most familiar form of non-yeasted.

Fermentation

It is important to note that for yeasted dough, good lamination will not replace the benefits of long fermentation. Bakers must start with a well-fermented dough that has had an extended first fermentation or been made using a preferment. For convenience, try mixing a straight dough and allowing it to ferment in the refrigerator overnight. This allows the fermentation to happen without the baker having to wait during a shift.

continued on page 3

what's inside:

lamination, 2005 course schedule, seasonal recipe, baker's tip, special offer on proofing baskets and more ...

about us: sfbi

Since 1996, the San Francisco Baking Institute (SFBI) has trained hundreds of professional and aspiring bakers from all over the world. We have acted as the unofficial training site for several award-winning Baking USA Teams and hosted a variety of international groups—from countries including Russia, China and Japan—interested in bringing artisan baking back to their homelands. SFBI is recognized within the baking industry as a place where artisan baking is respected, appreciated and celebrated. We are passionate about sharing our knowledge and enthusiasm with students and clients in an effort to raise the level of the craft.

from michel: the ethics of "poaching"

Michel Suas, Founder/President

Michel Suas

A "poacher" targeted SFBI. Our head instructor, Didier Rosada, got an offer he could not turn down, and, I must say, I would have taken the position, too. Reading these lines, I am sure some of you will think, "*I* should have offered Didier a job." However, you did not. I want to thank you for it!

You know how much SFBI brings to the baking industry by giving support to both smaller bakeries and larger ones. Besides, you know that taking a key staff member from a small organization like SFBI could be viewed as unfair. Especially when flashing all the big dollar signs that SFBI cannot afford.

However, rest assured that the San Francisco Baking Institute is not in difficulty; we have talented people in place. Our mission is still the same as it was at our inception. Our philosophy remains the same, too: independent, open doors and commitment to education at any cost - raising the bar constantly by listening to your needs. We have lots of exciting new ideas and commitments for 2005 and beyond.

I would like to talk a little bit about "poaching." Everyone can be a victim of it by a chef/owner or recruiter, who decides to go through the back door to tempt away another company's employees. I must say that it is something I never saw in France while working in restaurants or bakeries. First of all, if an owner or chef needed someone they would call other chef/owners to find out if they had a person available to promote. In addition, if a chef/owner had an employee who had reached a high level of competency and they did not have a position open for such a skilled worker, they would assist him finding a place worth his talents, opening doors for him to improve and evolve in his field.

Oftentimes, I receive calls for a baker's position opening and I know a lot of baker "assistants" or "head bakers" who would fit the job. However, I do not say anything because I know that most bakeries, especially smaller ones, depend on key staff members, who are a big part of their operation, and do not necessarily have the resources and structure to immediately or effectively replace someone.

A more beneficial exchange would help to both promote good workers and provide goals to entry-level bakers to show them how far they can advance. The next time you, as a owner or chef, see an ad that could benefit one of your employees, share the information. Show that you are supporting their skills and hard work and education in the baking industry.

Furthermore, if your employees show potential, send them to seminars or similar educational classes to polish their skills and better themselves. They will be ready to take on new challenges within your workplace.

All that said, I do wish Didier good luck in his new endeavor. We support his success. I know we will see him again at the San Francisco Baking Institute for visits and various projects. He is addicted to us.

--Michel Suas

career opportunity

Are you an experienced baking & pastry instructor looking for an exciting new opportunity? SFBI is now hiring!

Please forward your resume to:
San Francisco Baking Institute
480 Grandview Drive
South San Francisco, CA 94080

Or email Michel Suas at:
michel@sfbi.com

lamination: layers beyond imagination

continued from page 1

The flavors and dough characteristics are equal to when using a preferment. As I will explain later, it is best to work with the dough cold during the lamination process.

If a preferment will be used, with or without fermenting the dough in the refrigerator overnight, the choice of preferment is up to the baker. Traditionally, sponge is used for sweet doughs, as the flavor and strength it provides is a good match.

A poolish by itself or a poolish combined with another preferment is a great way to increase the extensibility sometimes created by stronger flours during the folding process. No matter which technique is used, remember that the fermentation of the dough is as important as the lamination.

Ingredient selection

Fat choice used for lamination will be discussed later in this article. At this point, it is important to understand the *other* main ingredients used in lamination, the most important being the flour. Think of laminated dough like bread. The goal is to create a dough with sufficient fermentation tolerance that provides a good balance of elasticity and extensibility. The best choice is to use an artisan-style bread flour made from hard winter wheat with a protein level between 10.5 and 12%. The same flour used for the bread in the bakery should be perfect.

Depending on the type of pastry, milk may or may not be used. Typically, croissant is made with a blend of milk and water. Danish usually is made with all milk. Puff pastries are generally made with all water, but certain varieties contain some white wine. Whole milk is the best choice for flavor and richness, but it may be substituted with any variety, including dry. Just remember to compensate with water when using dry milk. Milk provides flavor, richness, and color. The lower the fat content of the milk, the less these benefits will be seen.

Eggs are an additional hydrating ingredient that may be added to croissant dough but are generally reserved more for Danish and laminated brioche. They are added to the Italian form of puff pastry. Eggs add color, flavor, richness, and strength.

Although often considered "sweet dough", croissants and Danish actually contain a moderate amount of sugar. White granulated sugar is typically the sweetener of choice, but brown sugar is an easy way to create a new flavor profile for any laminated dough.

If the laminated dough is yeasted, any form of yeast may be used in the right proportion. Because of the levels of sugar and fat in these doughs it is necessary to use higher amounts of sugar than are typically used in lean dough. If the sugar is above 12% based on the weight of the total flour, osmotolerant yeast may be a good choice to keep the proofing process moving at a faster rate.

Mixing

The first step of the baking process that affects the lamination is the mixing of the dough. In the category of non-yeasted dough there are generally two levels of development. For yeasted dough, there are wide-ranging opinions and possibilities. For traditional, inverted, and blitz forms of puff pastry, the dough is mixed as little as possible in order to incorporate the ingredients, and no more.

There is no need to develop the gluten in the mixer since puff pastry is given at least four turns during the lamination process, which builds sufficient strength in the dough. The exceptions are forms of puff pastry that usually contain eggs and additional ingredients and are intensively mixed to build strength in the dough.

For the yeasted forms of laminated dough there are two schools of thought. Because fermentation is going to be a factor in building strength in the dough, the dough should never be taken beyond the improved mix stage or medium gluten development. If the dough is taken to full development the dough may have an excess of strength and elasticity that will create challenges during the shaping stage. Intensive mixing may also cause an excess of volume during the baking, resulting in a finished texture that lacks substance and body.

Some bakers only mix their croissant and Danish in first speed until good incorporation is achieved. The dough is given a long first fermentation and the strength of the dough is achieved through the folding process. By not mixing the dough too much, extensibility is not sacrificed. There is also very little oxidation and great flavor due to the short mixing. The result in the baked pastry is smaller volume and a slightly heavier, but acceptable, texture. The overall appearance may not look as sharp, but still retains generally nice visual and eating qualities.

The other route to take is to mix the dough to a medium stage of gluten development, or the improved mix. This creates dough with more strength out of the mixer, allowing for reduced fermentation time. Fermentation flavors and benefits can still be achieved by fermenting over a 12-18 hour period in the refrigerator or by using preferments. If a good quality artisan flour is used, there still won't be any problems with extensibility, and if there is a problem with a certain flour, the right preferment can correct it.

The finished pastry will have slightly more volume than the short mix dough and the honeycomb interior will be lighter and more open. Regardless of which technique is used, a high quality dough can be achieved.

Incorporating the fat

Once the dough has finished fermenting (or resting in the case of puff pastry) it is time to start creating the layers of fat that give laminated dough its defining characteristics. The same techniques and principles apply to yeasted and non-yeasted varieties.

continued on page 4

lamination: layers beyond imagination

continued from page 3

The percentage of roll-in fat used is based on the dough weight. The amount of fat rolled in to croissant and Danish generally ranges from 20-30%. If the dough is given sufficient fermentation there is no need to use an excessive amount of fat to produce a great tasting item. Too much fat can lead to a greasy texture. For puff pastry, 50% of roll in fat is standard but it can range from 40-100%.

To start the process, the dough should first be spread out in a rectangle 1/2"-1" thick. Thickness will vary with the size of the piece. The dough can then be covered and chilled while the fat is prepared.

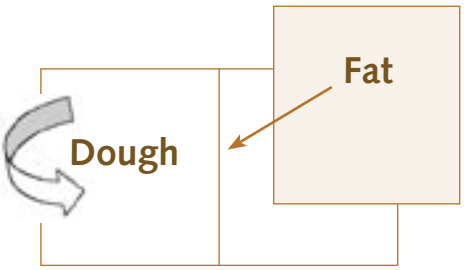
In Europe, pre-formed fat is readily available. In the U.S., unless the bakery is using an automated system, the fat must be formed manually or with the aid of a press. The idea is to soften the fat just to the point that it is pliable and very plastic, but not melting.

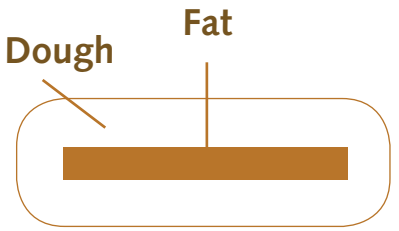
The fat should be sized to exactly half the size of the dough rectangle. Once the fat is formed, place it directly into the center of the dough rectangle and bring the outside edges of the dough around the fat so they meet in the middle, as shown in the diagram in the next column.

Next, using a heavy wooden rolling pin, gently press on the dough starting 1" in from the ends, and then finishing with the entire middle section. This will encourage the butter and fat to move together once the dough is rolled or sheeted. It also aids in keeping the edge of the fat and dough lined up together. It is not necessary to enclose the fat in the dough by sealing the end of the dough together. If this is done there will be dough with no fat in between and the results may appear in the final product.

If care is taken to keep the fat exactly half the size of the dough rectangle, and the dough is even all the way around the fat, even and uniform layers will be achieved. If this step is neglected, it is hard to correct later.

From this point on it is very beneficial to have the dough and fat the same texture. This is generally achieved with temperature. Depending on what type of fat, the temperature will vary.





When using butter it is best to keep the dough and fat as cold as possible. During the lamination process, this makes it easier to work with the dough. It also prevents softening or melting of the butter, which can be detrimental to the lightness and flakiness of the final product.

When using shortening or margarine care should be taken to not let the dough get too cold or the fat will lose its plasticity and break up under the dough.

Fat Choice

There are a number of fats that will achieve great lamination. From an artisan perspective, quality and flavor should be the first priority. Often, economics will play a greater role in determining not only the fat, but the quality of that fat. Following are the main types of fat used for lamination along with descriptions and considerations for each.

Butter

Most people agree that butter produces the best tasting laminated pastry with the best eating qualities. The reason it is not always used is because it is the most expensive of the choices, and it is the most fragile in terms of temperature tolerance. Butter starts to soften at about 80° F. For an artisan bakery, butter is the only choice.

When processing small quantities of dough it is best to work with the butter directly out of the refrigerator. It can be formed and made pliable by flattening it out between two pieces of heavy plastic with a rolling pin. If processing large quantities, it is easiest to soften, not cream, the butter in a mixer with a spiral hook or paddle, and then spread it into the desired size on a piece of parchment, a silicone mat, or heavy plastic. These pads of butter can then be placed in the refrigerator until needed. If they get too hard in the refrigerator they should be tempered slightly by leaving out at room temperature for a short period of time. Otherwise there may be some cracking of the butter during the sheeting process.

When butter with a high water content is used, its plasticity will be improved by blending it with approximately 8% of bread flour based on the butter weight.

Margarine

Margarine is often used as a substitute for butter. It is cheaper, has a higher melting temperature, and can be stored at room temperature. Margarine is made from vegetable oils that have been hydrogenated to make them solid at room temperature. Often, yellow coloring is added, in addition to artificial flavors, salts, and milk solids.

Margarine is more "plastic" than butter and takes less effort to form into the needed shape for lamination. It also melts at approximately 6-8 degrees higher than the temperature of butter, making it less fragile during the laminating process. Since margarine and the other hydrogenated fats listed below melt at temperatures above body temperature, they are likely to leave an unpleasant film in the mouth.

Roll-in Shortening

Roll-in or puff pastry shortening is another choice for lamination fat that is often used in larger bakeries. It is generally made of a hydrogenated fat that has water added, along with artificial flavoring, color, and, sometimes, emulsifiers. The water contributes to the leavening of the pastry. The emulsifiers create a waxy or plastic texture which economizes the rolling and folding process.

Blended fat

More often than not, price is the deciding factor in the choice of fat for lamination. One way to get the benefits of all of the previously mentioned fats is to combine them. Margarine or shortening is often blended with butter to get the flavor without too much cost.

It is important to keep in mind that more is not better when it comes to folding the dough.

Be aware

Although it probably won't make a significant difference in the preferences of most consumers, the FDA is requiring that by January 1, 2006, all foods that contain at least .5 grams of trans fat per serving, will be required to list the trans fat content directly underneath the saturated fat content on the nutrition label. Trans fat naturally occurs in many foods but is significantly increased with the use of hydrogenated fats.

Lamination

After the fat has been enclosed into the dough piece it is time to begin giving the dough its folds, or what the French call *tourage*. This is the idea of rolling the dough thinner and folding it onto itself to create multiple layers of fat in between multiple layers of dough, creating a light and flaky pastry.

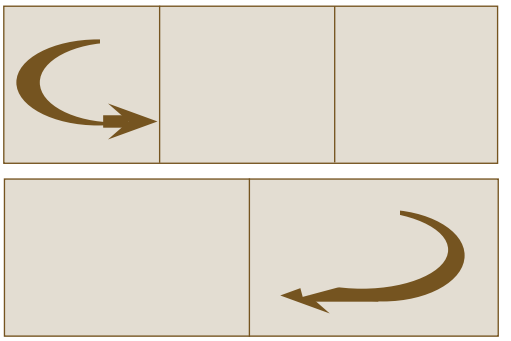
The dough is rolled out one of two ways. The first option is to use a rolling pin and complete the process by hand. This is often very challenging and tiring. The second and more commonly used method in professional bakeries is the use of a reversible sheeter. A reversible sheeter consists of two belts that feed the dough between a set of moving rollers. The space between the rollers is gradually reduced, causing the dough to get thinner and thinner. The benefit of a sheeter is that it always applies very even pressure to the dough and it can roll a strong dough much easier than a person.

When using a sheeter the space between the rollers should be reduced at a steady rate. If the space is reduced too quickly the dough will be damaged. If it is reduced too slowly the dough will have to be passed through the rollers an excessive number of times. The friction will warm up the dough and fat and possibly harm the integrity of the layers.

The amount of folds given to croissant and Danish are generally three single folds or two double folds. For puff pastry 4-6 single folds are often used.

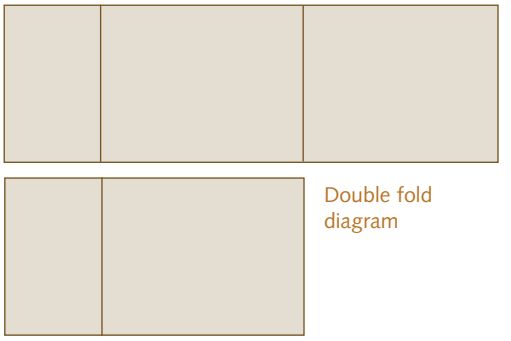
Keep in mind that more is not better when it comes to folding the dough. Each time the dough is sheeted the layers of fat get thinner and thinner. If the dough is folded too many times the layers of fat will eventually get so thin that they are practically absorbed into the dough. This will result in a more bread like interior instead of a flaky honeycomb texture.

The diagram below represents the single fold. The dough is first sheeted approximately three times as long as it is wide. One third of the dough is folded into the center of the piece and the remaining third is folded on top of that. That is the completion of one single fold.



Single fold diagram

To complete a double fold, the dough is sheeted slightly longer than for a single fold. The two ends are folded toward each other so that they meet off center. The rectangle is then folded in half. It is important that the two sides are not brought to the exact center of the dough piece to ensure even lamination.



Double fold diagram

Before completing a second fold of either type the dough is turned 90 degrees. This ensures that the open ends of the dough piece are going through the sheeter. If the folded piece is elongated towards the folded ends, the strength of the dough will cause bowing or rounding. This makes it difficult to properly align the dough during folding. Two folds can be done immediately after one another if the dough is well chilled and extensible.

If the environment is warm the dough should be chilled in between every fold to allow for the fat to stay cold. If more than two folds are going to be done, the dough should be allowed to relax after the first dough to allow the fat to stay cold and the gluten to relax.

The Shaping Process

After the final folds have been given to the laminated dough, a final resting period is necessary to allow the gluten to relax before the final shaping is done. During the final shaping process the dough will be sheeted thinner than during any other stage. If the dough is not sufficiently relaxed, it will be very elastic and tend to shrink after the dough is cut. It is also helpful to have the dough chilled so it doesn't warm up during the shaping stage.

Although there are endless variations, in general the dough is sheeted between 2-4 mm depending on the dough and the finished shape. Once the rolled dough has been placed on the work surface, relax the dough so it shrinks before cutting, instead of after.

Proofing

Only the pastries made from yeasted laminated dough will need to be proofed before baking. It is important to control the temperature of the proof box to keep the integrity of the fat layers. If the proof box is too hot the layers of fat will melt into the dough and, in some cases, melt and pool on the bottom of the pan.

Proofing can be done at room temperature but is often done in a warmer environment to speed up the process. The temperature should not exceed 78°F, especially when butter is used as the roll-in fat. The humidity should be set at approximately 78-80%. If too much humidity is used during the proofing process there may be excessive wrinkling or blistering on the pastry.

Baking

Most laminated dough will benefit from a simple wash of egg before baking to aid in the coloration of the crust. Egg washing the pastry before and after proofing will add additional color and encourage a more even coat of egg wash.

continued on page 8

Artisan I: Baking Fundamentals	Artisan II: Mastering Sourdough	Advanced Artisan Breads
2005 Schedule: **January 10 - January 14** **February 28 - March 4** **June 13 - June 17** **July 11 - July 15** **September 26 - September 30** **December 5 - December 9**	**2005 Schedule:** **January 17 - January 21** **March 7 - March 11** **June 20 - June 24** **July 18 - July 22** **October 3 - October 7** **December 12 - December 16**	**2005 Schedule:** **February 14 - February 18** **August 22 - August 26**
As a student in Artisan I, you will become familiar with the terms short mix, improved mix and intensive mix while learning what types of flour you should be using and the proper mixing techniques for every bread imaginable. You will gain an understanding of the relationship between mixing and fermentation; learn how you can completely change the profile of bread by adding an additional ingredient; acquire overall knowledge about the most common preferments used in bakeries today and much more. We use the classic Baguette to teach the fundamentals, but you will also learn to make Rye Bread, Whole Wheat Bread, Multigrain Bread, Pan Bread and Braided Egg Bread. The skills you learn in this class are directly applicable for a position in a professional bakery or for a serious home baker. This class, limited to 15 to allow for personal instruction, fills up quickly, so reserve your spot early. **Be sure to consider the dates for our Artisan II workshop, scheduled to allow you two consecutive weeks of intensive training.**	Building on the skills you gained in Artisan I, Artisan II takes you full speed ahead into the world of sourdough bread. To become a truly skilled baker, you must learn how to control sourdough and not let the sourdough control you! Unravel the complex world of wild yeast and bacteria as you learn how to start your own sourdough starter, adjust the feeding schedule to maximize the quality of the bread and take your own version of the starter home. Experiment with different styles of starters and fermentation to achieve the flavors and characteristics you desire. The extensive hands-on portion of this class includes Sourdough Breads made with liquid and stiff starters, Olive Bread, Raisin Bread, Ciabatta with a poolish and many other favorites. On the last day, you will mix a batch of sourdough by hand using the starter you created on the first day of class. If you are serious about becoming a better baker, this is a class that you do not want to miss! We encourage you to take Artisan I before enrolling in Artisan II unless you already have a thorough understanding of baking fundamentals. **Artisan I and Artisan II sell out quickly, so please be sure to register early!**	Advanced Artisan Breads is designed for experienced bakers interested in refining their skills and deepening their overall knowledge to become even better at their craft. During this illuminating workshop for those who love their profession, you will learn about and practice a variety of interesting breads using advanced methods. You will experiment with ways to fit new breads into an existing product line with fresh techniques such as sourdough to make sweet breads and miche using high ash flour and 230% (!) starter. Whole grain breads will be produced using whole grain starters and no white flour. You will work with difficult flours such as rye and spelt. Retarding techniques will be demonstrated with Baguettes and Ciabatta - retarded before shaping, and Whole Wheat - retarded after shaping. Because this more advanced class is not designed for beginning bakers, students need to have taken Artisan I and Artisan II or have extensive experience and a thorough understanding of the baking process, including science and terminology. Experienced bakers will be inspired by the newfound understanding and marketable skills they take away from this seminar!

NEW COMPREHENSIVE PASTRY WORKSHOP SERIES!

Pastry I: Cake Bases, Creams and Assembly	Pastry II: Exploring Creams, Mousses and Glazes	Pastry III: Advanced Cakes and Pastries
2005 Schedule: **February 21 - February 25**	**2005 Schedule:** **May 16 - May 20**	**2005 Schedule:** **November 7 - November 11**
In this introductory class, students will learn the formulas, techniques and processes that are the foundation on which both modern and classic desserts are built. Through lecture, demonstration and hands-on participation, you will learn about ingredient functionality, cake mixing methods, pastry doughs and batters, creams and icing preparation, and layer cake assembly. Students will make a variety of base products such as Angel Food cake, Chiffon cake, Genoise, Devil's Food cake, Japonais and Pate a Choux. The cake and pastry bases will then be finished with a variety of creams and icings such as pastry cream, fruit curd, Italian butter cream and fondant. Special emphasis will be placed on learning the procedures for making cake and pastry bases, proper creams and icing preparation and assembling and icing layer cakes. Some of the finished products will include Chocolate Hazelnut Cake, Lemon Curd Cake, Black Forest Cake, Napoleon Cake, Éclairs and Paris-Brest.	In Pastry II students will explore in-depth the techniques and processes that make up the desserts and pastries which are found in many of today's pastry shops. Cake mixing will continue with sponge cakes including Roulade (Jelly Roll) and Almond Sponge Cake. These versatile cakes will be used to finish several of the desserts using Crème Anglaise, Pastry Cream, Diplomat Cream, Bavarian Cream, Mousseline Cream and Cremeux. In addition, students will also learn the fundamental principles for creating light fruit mousse cakes and rich chocolate mousse cakes. Several mediums for finishing cakes such as Italian butter cream, various chocolate glazes, ganache, fruit glazes, mirror glazes and marzipan will also be implemented. Some of the final products produced in Pastry II include Opera Cake, Baba Savarin, Cremeux Tarts, Bavarian Cakes, Fraisier Cake, Charlotte Russe, as well as Fruit and Chocolate Mousse Cakes.	This class is designed for professionals in the industry or students who have completed Pastry I and Pastry II and are interested in learning more about product composition, advanced mousse preparation, chocolate and advanced finishing techniques. Students will learn how to add flavor and flair to their products by creating infused creams, frozen inserts, textured cake bases and seasonal fruit preparations that can complement the natural flavors and textures of any dessert. Expanding on the formulas and processes learned in Pastry I and Pastry II, students will produce dessert offerings that reflect today's pastry trends. Special emphasis will be placed on understanding the balance between flavor, texture and visual elements to create eye catching and flavorful desserts. Through demonstration and hands-on participation, students will learn how to temper and work with chocolate and how to make and work with marzipan in order to create sophisticated garnishes to highlight any pastry or dessert.

quick class facts

- All courses run from Monday-Friday. Courses begin at 8:30am on Monday and 8:00am for the remainder of the week. Classes end at approximately 4:00pm each day.
- Acceptable attire is a white chef's coat or white shirt and checked pants. Hat optional. Wear comfortable non-skid shoes.
- Students should bring a notebook, writing utensils, and a calculator to class. Cameras are optional.
- As a courtesy to our instructors and fellow students, mobile phones must be shut off or left on "vibrate" mode during class.
- SFBI offers special rates at select hotels near our campus. Most of these hotels offer direct shuttle service to and from our school. Please see our website www.sfbi.com for a complete list or call us at 650.589.5784 for details.

All About Chocolate	Cakes & Creams	Fundamentals of Pastry	Fruit Desserts	German Breads
2005 Schedule: no class scheduled for 2005... Check out our website throughout the year for updates!	**no class scheduled for 2005... Check out our new Pastry Workshops on page 6 as an alternative.**	**2005 Schedule: January 31 - February 4 October 10 - October 14**	**no class scheduled for 2005... Check out our website throughout the year for updates!**	**2005 Schedule: March 14 - March 18 October 31 - November 4**
Chocolate desserts of every variety are always a favorite with customers! Learn everything you need to know about this alluring ingredient: how beans are harvested; what really defines a chocolate and classifies it as "quality;" and the basic principles of tempering. We will use the best of the hands-on techniques and mediums. You will create small, "melt-in-your-mouth" Truffles, decadent Chocolate Cakes and silky smooth Mousses. This essential class gives you the foundation and stepping stones you need to create satisfying, exciting products that will have your customers coming back for more!	Our comprehensive cakes and creams class will add new layers of competence to your range of skills. Start with the basics: Chiffon Cakes and classic Buttercreams, and then watch your abilities grow and strengthen enough to create some very complex and high-end desserts. From a Pate a Dacquoise to Chiffon Genoise, from frozen inserts to cold fruit glazes, you will practice the many components of today's most stunning cakes.	Learn the formulas and processes that are the foundation of many bakeries today. as we cover the mixing and baking of a number of products from quick breads, to cookies, to puff pastry. Students will learn to make Financiers, Madelines, Muffins, Pound Cake, an assortment of cookies, brownies, pies, coffee cakes and more. Savory items will also be explored as a way to build a diverse product line by using a few base pastry formulas such as pate a choux and puff pastry. The main focal points of this class are to understand ingredient functions and the mixing, handling and baking guidelines for the pastry doughs and batters covered. Students will obtain the knowledge and skill necessary to produce, manipulate and troubleshoot a wide variety of baked goods.	From summer's sun-drenched strawberries to autumn's clean, crisp apples, there are fruits available year-round to inspire desserts for every occasion. Learn how to work with the seasons to transform the simplest fruit into the most memorable dessert. You will create the well-known Fresh Fruit Tart, a classically French Tart Tatin and modern day Fruit Mousse Cakes. This class will open your eyes to a world of flavor and texture that will prevent you from ever viewing fresh produce the same way again!	This exciting seminar focused on whole grain and German breads will show you how easy it can be to add these unique products to an existing bread line. If you have worked with doughs containing a high percentage of rye or whole grains, you know how difficult they can be to handle. Learn how to adjust your mixing times and fermentation to get exceptional results, even when using 100% rye! You will make traditional breads including Sourdough Rye, Whole Grain Spelt Bread, and the traditional Pumpernickel, which bakes for 36 hours! You will also learn how to make traditional Bavarian Pretzels and Kaiser Rolls.

VISIT www.sfbi.com FOR SCHEDULE UPDATES AND MORE DETAILED CLASS DESCRIPTIONS!

Holiday Pastries	Par Baked Breads	Sweet Doughs for Breakfast Pastry	Bake with a Wood Fired Oven
2005 Schedule: October 19 - October 23	**no class scheduled for 2005... Check out our website throughout the year for updates!**	**2005 Schedule: February 7 - February 11 May 2 - May 6 October 17 - October 21**	**2005 Schedule: August 15 - August 19**
Holidays are steeped in tradition and associated with warm memories. The pastries and desserts we identify with are modern day reminders of a forgotten art. In this class, you will finally learn the time honored secrets and techniques for producing an array of holiday breads, cookies, cakes and tarts that are rich in culture, tradition and flavor. A wide variety of specialty items will be covered, including Stollen, Pannetone, Buche de Noel, Holiday Mousse Cakes and seasonal cookies, pies and tarts. Through lecture, demonstration and hands-on participation, student will learn the formulas and processes for a wide variety of items. Discover why these beautiful desserts and pastries are holiday favorites and introduce your customers or family to a wealth of traditional and exciting flavors.	This timely workshop will show you how you can boost sales in your bakery by starting a par baked or frozen dough line. We will demonstrate techniques for par baking that will allow you to partially bake breads, freeze them and finish them after freezing. Our instructors will show you what characteristics to look for before removing the bread from the oven and what precautions to take to ensure that the baked-off loaf is as good as a loaf that never hit the freezer. This class is recommended for experienced baking professionals who are interested in these specific techniques. This class will not cover the fundamental baking process.	American palates are becoming more and more sophisticated and the traditional donut isn't enough to keep up with changing tastes. Take advantage of the opportunity to market finer, more profitable alternatives to the muffin and donut. This class will teach you the basic doughs used in every pastry shop. Whether you are a professional baker or you are just getting your feet wet, you will leave this class with a solid foundation for creating world-class breakfast pastry.	Don't miss this rare chance to experience baking the way it was done in days past! You will learn about the large selection of products that are well-suited to being baked in a wood fired oven, including breads and sweet and savory items such as pizza and rustic tarts. Instruction will also include the fundamentals of designing and building a wood-fired oven. Most of this class will be hands on, but some products will be demonstration only. Please note: Due to the size limitations of the wood fired oven, a sampling of each product will be baked in the wood-fired oven; the remainder will be baked in the gas fired deck oven.

how to register

- **Register on line at www.sfbi.com**
- **Call 650.589.5784 to register over the phone**
- **Tuition for all classes is $950; tuition includes daily lunch. Sign up for 2 classes within a 12 month period and receive a 10% discount on the second class: total price is $1805.**
- **A 50% deposit is required to reserve your space in class, payable by check, cash or credit card (MasterCard, VISA, American Express). The remaining amount is due on the first day of class.**

Many people have never tasted a truly good croissant or Danish and will be shocked at how delicious they can be when made properly.

continued from page 5

The baking temperature should not be too cold. If it is too cold the butter will melt instead of creating steam and the final result may be heavy and greasy. Additionally, if the pastry is baked too cold the pastry will be dry before the appropriate color is reached.

It is often advantageous to start the baking of laminated dough at a high temperature to encourage steam from the fat. The temperature can then be lowered to finish the bake without achieving too much color on the crust. Baking at too hot of a temperature will cause too dark of a color and, if taken from the oven too early, the structure of the pastry will be prone to collapsing.

Upon removal of yeasted laminated dough from the oven, it is important to allow the product to cool before aggressive handling and especially before packing. Danish and croissant are much more fragile than most bread dough and can be easily crushed if mishandled when still warm.

Tips for hand lamination

No matter what steps are taken, laminating by hand is never as easy as laminating with a reversible sheeter, especially when using an artisan process. The challenge is to apply even pressure using a rolling pin against a dough that will gradually get stronger and stronger.

A few adjustments can be made to the formulation of the dough. The first is to add .1% of deactivated yeast based on the weight of the total flour. The yeast will have a reducing effect on the dough creating more extensibility. To increase the extensibility of the dough, a 30 to 60 minute autolyse of the flour will be helpful. The next tip is to mix the dough no further than a short mix. A longer fermentation period and the process of folding the dough will build the remaining strength in the dough.

During the sheeting and rolling process extended periods of rest in the refrigerator will allow the gluten to relax to the full extent before attempting to roll it again. When sheeting by hand, allow for a 45 minute rest between every fold.

As a general rule, the biggest challenge is to apply even pressure to the dough when rolling. If too much downward force is applied to the dough piece, the lamination and layers will be damaged.

Retarding options

There are many options when it comes to retarding laminated dough. Retarding allows the process to be stopped or slow down at a number of points.

Retarding in bulk

The first option is to retard the dough in bulk. This may be done before or after lamination. If done before lamination, the dough is placed at refrigerator temperature one hour after mixing. After 12-16 hours in the refrigerator, the dough is laminated. If retarded after lamination it is helpful to leave on of the folds until after the retarding process.

During the retarding process, the dough will continue to accumulate gas and the fat will lose its plasticity as it gets cold. The remaining fold will de-gas the dough and temper the fat before the final sheeting and shaping.

Retarding shaped

Often, the best system for a bakery is to retard the pastry after shaping. This can also be used in combination with retarding in bulk. The shaped pastry is placed directly into a chilled environment for a period of 12-24 hours before being proofed and baked. This is a very convenient way to make laminated dough. Depending on how cold the retarding room is, the pastry may be ready to go directly into the oven after retarding.

Freezing in bulk

Freezing the dough piece in bulk after the lamination process has begun can be very helpful. This method allows a bakery to mix large batches of dough once a week and take them out of the freezer as needed. The dough is fermented, portioned, and given all but one of its folds before being wrapped well and frozen. The dough can be frozen for up to a week when no conditioners or additives are used. It is then defrosted overnight in the refrigerator. When ready to shape, the final fold is given and the process continues as normal.

During the freezing process the dough will lose strength due to the crystallization of water. The final fold after defrosting will rebuild some of that strength.

Freezing shaped

Freezing the laminated pastry shaped is a great way to stay ahead of schedule, eliminating the need to shape the pastry every day. It does require more space than freezing in bulk and, therefore, may not be the right choice for every bakery.

A normal process is used up to the point of shaping. The product is then placed directly in the freezer, covered and protected from the environment. When ready to bake, the pastry is defrosted in the refrigerator or at room temperature before being proofed and baked.

If the pastry is going to be in the freezer for a week or less, nothing has to be changed with the formula. If a longer freezing period is required a dough conditioner may be needed to maintain the strength of the dough. Additionally, the yeast content may have to be increased by 1.5 to 2 times the original amount to compensate for the yeast that will die at the freezing temperature. When available, a blast freezer is best for freezing raw dough. The faster the ice crystals form, the less damage the dough will suffer.

Pre-proofed frozen

Using new technology and techniques, this type of croissant is now readily available. They can be put in the oven directly out of the freezer. The process is much different than artisan style laminated dough, but there is a place for everything.

What are you waiting for?

Laminated doughs are an easy way to increase sales in the bakery and can be used for an endless variety of product. The process is not difficult, but careful attention to the details is necessary for consistently good results. For an artisan process, remember to use the best ingredients available and combine them with good fermentation and proper lamination.

Many people have never tasted a truly good croissant or Danish and will be shocked at how delicious they can be when made properly.

start fresh: begin a career in baking

Changing careers or want to jump-start your baking career? Earn your diploma in just sixteen weeks of training!

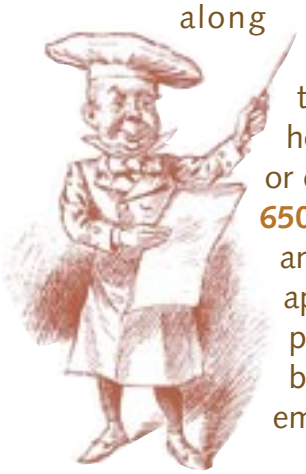
If you are committed to starting a new career as a baker, or enhancing your current career in the baking industry, our 16 Week Bread & Pastry Professional Training Program will give you the foundation you need to achieve success.

SFBI recognizes that not every student has the time and budget available for six months or more of training. At the same time, you want to be sure you receive the very best education available. We designed our progressive program to meet these specific needs.

Our highly concentrated, focused curriculum includes an unusually high level of hands-on practice and deliberately small class sizes. In our spacious facility, just a short drive from downtown San Francisco, we offer a technologically advanced, welcoming environment where we introduce students to artisan baking at its best.

For two weeks of our program, you will have the unique opportunity to hone your skills in France - the birthplace of artisan baking. This unique culinary adventure will introduce you to the history, tradition and new, trend-setting practices of European baking in the best way possible: first-hand experience. At the *Institut National de la Boulangerie*, one of France's most respected baking schools, you will train with French instructors as you stay in nearby accommodations with your fellow students and absorb the local culture.

Visit us on line at **www.sfbi.com** for a fully detailed curriculum along with information about tuition and housing, or call us at **650.589.5784** and ask for an application package to be mailed or emailed to you.



what:

16 Week Bread & Pastry Professional Training Program

when:

Our current session begins April 25, 2005; the next session is in 2006.

where:

Train at SFBI's facility, just a few minutes from the one of the most beautiful cities in the world and spend 2 weeks in France. Learn in a production-sized environment, with small class sizes, spacious bakery classrooms and technologically advanced equipment.

who:

- Baking Instructors: Jeff Yankellow and Brian Wood

why:

The only school in the United States dedicated exclusively to artisan baking, SFBI offers you the unique opportunity to be fully trained in just 16 weeks, in an environment where baking never takes a backseat to other culinary learning.

how:

Apply on line at www.sfbi.com or call us for more information at 650.589.5784.

invest in your future

Join a profession with a legacy of quality, dedication and honor and begin a career in an industry that continues to thrive and grow in any economic climate.

Develop life-long skills in a profession that offers security, flexibility and creativity.

Train in a professional environment that balances theory with hands-on learning and focuses on the skills you need in the real world of baking today.

Working Bakers

Enhance your career and your salary with new cutting-edge skills and a deeper understanding of the baking arts.

Aspiring Bakers

Changing careers or opening a bakery? The 16 Week Bread and Pastry Professional Training Program gives you the skills and knowledge you need to get started.

Owners and Bakery Managers

Grow your business with the employees you send to train at SFBI. Benefit from the enthusiasm and loyalty that a good education brings to young people with an interest in their work. Give back to the baking community and help contribute to its continued growth by helping to build the next generation of artisan bakers.

farewell: from didier

Didier Rosada
Head Instructor

The time has come from me to move on to the next chapter in my life. I have been given the perfect opportunity to grow as an individual and as a baker in a new environment.

I am joining Uptown Bakers in Washington, D.C. as Vice President of Operations. This position will advance my skills on the operational side of the bakery business and also will allow me to continue with my other passions, including teaching and consulting.

I know SFBI is in good hands with Jeff and Brian. The standards of quality and the mission instilled by Michel will remain the same. I am sure I will cross paths with many of you in the future. I will be involved with SFBI for classes and consulting. I can be contacted at the same email address: didier@sfbi.com

Thank you for all the good times we have had, and will continue to have in the future!

-- Didier

"Good bread is the most fundamentally satisfying of all foods; and good bread with fresh butter, the greatest of feasts."

James Beard (1903-1985)

help a student: buy a proofing basket!

Thanks to a donation from Trader Joe's, SFBI is happy to offer a line of high-quality proofing baskets as a fund-raiser for our new Scholarship Organization. All proceeds from the sales of these baskets will go directly to our non-profit scholarship organization, which helps economically challenged students with their baking education tuition at SFBI.

Your purchase will help a student who is passionate about baking and pastry afford professional training - and it's tax deductible! Please help SFBI build our scholarship fund for the many deserving students who need a little help with tuition by placing an order for baskets today! Call 650.589.5724 to place your order. Quantities are limited, so order soon!

All proceeds go to the non-profit San Francisco Baking Scholarship Organization.

Rattan banneton baskets lined with linen:

Sizes:

8" Diameter - 4-1/4" H: TRA-B8
Dough Weight: 1 to 1.5 lbs.
Price: $8.00 each

10" Diameter - 4-3/4" H: TRA-B10
Dough Weight: 1.5 to 2 lbs.
Price: $10.00 each

12" Diameter - 6" H: TRA-B12
Dough Weight: 3 to 4 lbs.
Price: $12.00 each

Call 650.589.5724 to order.
Quantities are limited,
so order soon!

recipe of the season: croissant with poolish

If you enjoy a great croissant, try this variation with a poolish. Most bakers use a poolish for their baguette, and it works equally as well to produce an irresistible croissant dough. Don't stop with the croissant; try using it for rum raisin rolls or chocolate praline rolls, too!

Ingredients, Poolish		
	Baker's %	Weight
Flour	100	4.373
Water	100	4.373
Yeast (instant)	.1	.004
Total	200.1	8.750
Ingredients, Final Dough		
	Baker's %	Weight
Flour	100	10.000
Milk	34	3.400
Water*	.9	.090
Sugar	18.5	1.850
Salt	2.9	.290
Yeast (instant)	1.4	.140
Malt	.7	.070
Butter	5.7	.570
Poolish	87.5	8.750
Total	250.6	25.060
*Butter for roll-in	25	6.265

Procedure	
Poolish	
Mixing	Mix until ingredients are well incorporated
Fermentation	Ferment 12-15 hours at 73°F
Final dough	
Mixing 1st speed	5 minutes
Mixing 2nd speed	Improved Mix
Desired dough temperature	73 to 76°F
First fermentation	2 hours
Lamination	3 single or 2 double folds
Shaping	Any
Proof	2 hours at 78°F
Bake	385°F for 15 minutes until golden brown

"Blues is to jazz what yeast is to bread. Without it, it's flat."

Carmen McRae, Jazz vocalist and pianist (1920-1994)

baker's tip: making the baker's life easier

by Jeffrey Yankellow, Baking & Pastry Instructor

Jeffrey Yankellow

Deciding to own or even just work in a bakery has traditionally destined the baker to a life of long hours in the middle of the night. Motivated by the desire to have a friendlier schedule and workload, techniques such as retarding and freezing are used more and more. One way to lighten the load in the bakery, especially in smaller operations with limited employees, is to cross utilize the staple preparations. Croissant dough is a perfect example of how this works. It is a classic product that, in its best forms, reveals subtle fermentation, a honeycomb interior, pure butter flavor, and a light flaky texture. Sounds good right? So why not use the same dough for more than just croissants?

In a bakery that makes croissants, Danish, bear claws, cinnamon rolls, sticky buns, and a variety of sweet rolls, all can be made with croissant.

Unlike the simple croissant, these other products have fillings and glazes which generally have more of an impact on the consumer's buying decision than whether or not the Danish is made from a true Danish dough.

You can even add a small percentage of eggs to the croissant to give it more body and richness. It will still be suitable for croissants and work great for everything else. If it tastes great the customer may even like it better and the baker gets to save himself a lot of work!

Happy Spring from SFBI!

San Francisco Baking Institute
480 Grandview Drive
South San Francisco, CA 94080

PRSRT STD
U.S. POSTAGE
PAID
San Francisco, CA
Permit No. 855

SFBI INSTRUCTORS

Jeffrey Yankellow
Baking & Pastry Instructor

Brian Wood
Baking & Pastry Instructor

Our talented instructors are dedicated to providing a comprehensive learning experience that combines the value of hands-on training with the equally important experience of individual baking creativity. Our class sizes are deliberately smaller than most other culinary schools, so that we can provide you with better opportunities for interaction with your instructor and fellow students.

San Francisco Baking Institute
Baking and Pastry Arts School for Professionals & Enthusiasts
480 Grandview Drive
South San Francisco, CA 94080
phone 650.589.5784 fax 650.589.5729
www.sfbi.com

WHAT'S RISING THIS SEASON ...

- lamination: layers beyond imagination
- 2005 course calendar
- recipe of the season: croissant with poolish
- special offer on proofing baskets
- baker's tip and more!

What's Rising is designed and edited by
Jennifer Donahue Marketing Communications
www.jenniferdonahue.com