



BRIEF

chapter one A Brief History of Frozen Desserts

HISTORY

IN TODAY'S MODERN PASTRY KITCHEN, you will probably see, among many machines, a batch freezer or freezers filled with a variety of freshly made ice cream, gelato, sorbet, and other frozen treats, and perhaps you will think nothing of it. Why should you? Your customers expect to get a scoop or two and then be on their way. But there are almost three thousand years of history behind that scoop of ice cream. It started when someone had the bright idea to eat flavored snow, and it has progressed all the way to the present time, when a machine as technologically advanced as the Pacojet is commonplace in today's kitchens.

ORY

UNFORTUNATELY, THERE IS NO SOLID OR VERIFIABLE EVIDENCE AS TO WHEN OR WHERE MAN BEGAN TO EMPLOY ICE OR FREEZING TEMPERATURES OR MACHINES TO PRODUCE FROZEN DESSERTS. IT IS GENERALLY ACCEPTED AS FOLKLORE, AND THEREFORE NOT BEYOND DISPUTE, THAT THE CHINESE WERE THE FIRST TO HAVE PRODUCED A RUDIMENTARY ICE CREAM (OR WAS IT FLAVORED SNOW...OR SORBET?) AROUND 3000 B.C.E. MARCO POLO IS CREDITED WITH BRINGING THIS DISCOVERY TO ITALY IN THE THIRTEENTH CENTURY. AND THEN IT IS SAID THAT THE VERY YOUNG QUEEN CATHERINE DE MEDICI, ALONG WITH HER ITALIAN CHEFS, INITIATED THE FRENCH IN THE PLEASURES OF SORBET, ICES, AND ICE CREAM IN THE SIXTEENTH CENTURY. IT MAY BE TRUE, BUT IT IS CERTAINLY NOT VERIFIABLE. WHY DID THESE TRANSPLANTED ITALIAN CHEFS' INFLUENCE AND TECHNIQUES THRIVE IN FRANCE? WAS IT THE NOVELTY OF THEIR FOOD? THE EXCELLENCE OF THE CHEFS' PREPARATIONS? OR PERHAPS THERE IS SOME ROOM FOR FOLKLORE THAT FILLS A VOID OF CONCRETE FACTS. IT IS MY PERSONAL OPINION THAT THE VERY FIRST FROZEN DESSERT HAD TO BE FLAVORED SNOW. I DON'T BELIEVE IT WAS DISCOVERED BY A SINGLE GROUP OF PEOPLE. I THINK IT MAY HAVE BEEN LIKE HARNESSING FIRE OR THE INVENTION OF THE WHEEL: IT WAS MERELY ACCIDENTAL AND OCCURRED IN MANY DISCONNECTED CULTURES.

The following is a timeline of the deciding (and some merely anecdotal) moments in the history of frozen desserts. Most of the verifiable information is related to their development in the United States.

- **3000 B.C.E. (APPROXIMATELY):** The Chinese are credited with making the first frozen dessert, a flavored ice (whether it was snow with fruit juice or milk and sugar churned in a rudimentary machine that employed ice and salt to freeze it is unknown). It is believed by some that this knowledge was taught to Arab traders, who in turn spread it throughout Europe. However, this would contradict the generally accepted theory that Marco Polo was responsible for taking this discovery to Europe in the thirteenth century.
- **2500 B.C.E. (APPROXIMATELY):** Egyptian hieroglyphs depict a vessel filled with snow next to another filled with fruit juice.
- **FIRST CENTURY A.D. (64 AND 54 A.D. APPROXIMATELY):** The Roman emperor Nero is credited with "inventing" flavored ices. He had runners bring him mountain snow from the Apennines through the Appian Way, running almost 400 kilometers to bring him fresh snow, which would be mixed with honey and wine.
- **FOURTH CENTURY A.D.:** The "endothermic effect," in which salt lowers the freezing point of ice and, when mixed, the two turn into a very cold slush that is below freezing temperature and that can freeze another liquid through conduction, is mentioned in the "Pancatantra." This Indian poem mentions in a verse that water can become very cold only if it contains salt.
- **1250 A.D. (APPROXIMATELY):** An Arab historian, Ibn Abu Usaybi'a, writes the first known technical description for making ice, but he in turn attributes this knowledge to Ibn Bakhtawayhi, of whom nothing is known.
- **LATE THIRTEENTH CENTURY:** Supposedly, Marco Polo brings his discovery to Italy from China, but this is unverifiable. Some historians go as far as saying that Marco Polo didn't even make it to China at all, but that's a different story.
- **1533:** Catherine de Medici arrives in France to marry the Duke of Orléans, who would become Henry II of France. She brings her cadre of Italian chefs, who introduce the frozen delicacies of sorbets and ice creams to French nobility during their month-long wedding celebration, where legend has it they served a different flavor every day.
- **1585:** The word *sorbet* is first recorded in English, derived from French (*sorbet*) and then Italian (*sorbetto*), which is itself derived from the Turkish word *sherbet*.



- **1603:** The word *sherbet* is first recorded in the English language. It's derived from the Ottoman Turkish word *sherbet* or Persian *sharbat*, both going back to the Arabic word *sarba*, which means "drink." The Persian and Turkish words referred to a sweet diluted fruit juice, which was sometimes cooled with snow. In Europe, sherbet was known to be a carbonated drink. It wasn't until 1891 that the word *sherbet* was applied to a frozen dessert.
- **1660s:** Water ices begin appearing in Sicily, Naples, Florence, Paris, and Spain.
- **1672:** The English term *ice cream* appears in a document from the court of Charles II in England.
- **1674:** The first recorded recipe for sorbet appears in Paris.
- **1682:** The first recipe for ice cream (named "Snow of Orange Flowers") is recorded in a book titled *Nouveau Confiturier* (The New Confectioner).
- **1686:** The Procope, the oldest restaurant in Paris and the first café, opens its doors, serving, among other items, flavored ices. The owner was Francesco Procopio Dei Coltelli. This café exists to this day, offering a mind-boggling variety of French and Italian food.
- **1700:** *L'Art de Faire des Glaces* (The Art of Making Ices), an anonymous manuscript, is published in France, containing recipes for custard-based ice creams.
- **1744:** The first written evidence of ice cream in America appears when a guest of William Bladen, the proprietary governor of Maryland, writes a letter in which he describes an ice cream that was made of milk and strawberries.
- **1747:** *The Art of Cookery Made Easy*, by Hannah Glass, is published in London. It contains a recipe and detailed instructions for making ice cream.
- **1768:** A similar book with a similar title (*The Art of Making Frozen Desserts*) is published in Paris, in which the act of freezing water is explained through divine intervention.
- **1773:** Phillip Lenzi, a caterer, advertises in a New York newspaper (*The Rivington New York Gazetteer*) that he has just arrived from London and will be selling a variety of confections, including ice cream.
- **1776:** The first ice cream parlor in the United States opens in New York City.
- **1802:** Baked Alaska supposedly makes its first appearance when Thomas Jefferson serves minister Manasseh Cuttler a dessert that he describes as "ice cream very good, crust wholly dried, crumbled into thin flakes." Another story is that in 1866, a master cook for the Chinese mission in Paris produced a dessert in which he baked a dough similar to *sablée* dough (which is typically used for tarts) over ice cream for the French chef Balzac of the Grand Hotel. Baked Alaska is also attributed to Charles Ranhofer, the chef at Delmonico's in New York City in 1869, who created this dessert to commemorate the purchase of Alaska by the United States, but he called it "Alaska, Florida," not Baked Alaska. The final version of Baked Alaska as we know it today is attributed to Benjamin Thompson of Massachusetts, who experimented with the resistance to heat of egg whites that, when baked, resulted



in a brown topping that eventually became the crown for what came to be called “Baked Alaska.” The name first appeared in print in 1905, and was used in the 1909 edition of the Fannie Farmer cookbook. In France it is known as *Omelette Norvegienne*.

- **1813:** Ice cream is served at President James Madison’s inaugural ball.
- **1843:** Nancy Johnson, a Philadelphia woman, invents the hand-cranked ice cream freezer, by which the “endothermic effect” makes freezing ice cream possible. A bucket for the ice and salt holds another sealed container fitted with a blade and a handle. The ice cream base is placed in the sealed container and the ice cream is churned by spinning the blade. This type of machine still exists, and she was smart enough to patent it.
- **1851:** Commercial production of ice cream begins in the United States in Maryland, thanks to Jacob Fussell.
- **1869:** The first recipe for coffee-flavored parfait is recorded in France.
- **1878:** Mechanical refrigeration is perfected by Ferdinand Carré.
- **1879:** The ice cream soda is introduced.
- **1896:** Italo Marchiony begins selling ice cream in a container from his pushcart in New York City. He is credited with inventing the ice cream cone, which he patented in 1903. Unverifiable sources claim that the ice cream cone had already first made its appearance in Paris in 1807.
- **1899:** August Gaulin, a Parisian, invents the homogenizer, the mechanics of which essentially haven’t changed since its invention.
- **1904:** The banana split is created in Latrobe, Pennsylvania, by David Strickler.
- **1905:** Ice cream production in the United States hits five million gallons.
- **1906:** The first dairy show is held in Chicago. Chicago adopts the first regulations with regard to pasteurization.
- **1913:** The direct expansion freezer is invented (freezers as we know them today).
- **1920s:** Many novelty products are invented, such as the Eskimo Pie, Good Humor bars, and the Popsicle. This last one is attributed to Frank Epperson, who created it in 1923 with the original flavor being lemon. It was originally named the Epsicle. He patented his “invention” in 1924.
- **1926 (APPROXIMATELY):** H. H. Miller invents the first horizontal batch freezer. The first commercial continuous process freezer, which made it possible to mass-produce ice cream, was perfected by Clarence Vogt. This type of machine is the predecessor of present-day industrial ice cream machines. Both of these inventions are crucial to modern-day frozen dessert production, with regard to churning and reserving frozen desserts.
- **1990s:** The Pacojet is invented. As far as ice cream and sorbet manufacture goes, this was the most notable advancement since 1926, revolutionizing the traditional churning process until . . .

- o **2004:** Philip Preston invents the anti-griddle (see sidebar on page 40 in chapter 3 for a detailed description of how it works).

The Big Leagues (when the big guys got started):

- o **1940:** Dairy Queen
- o **1945:** Baskin-Robbins
- o **1947:** Borden

- o **1961:** Häagen-Dazs (purchased by Pillsbury in 1983)
- o **1978:** Ben & Jerry's

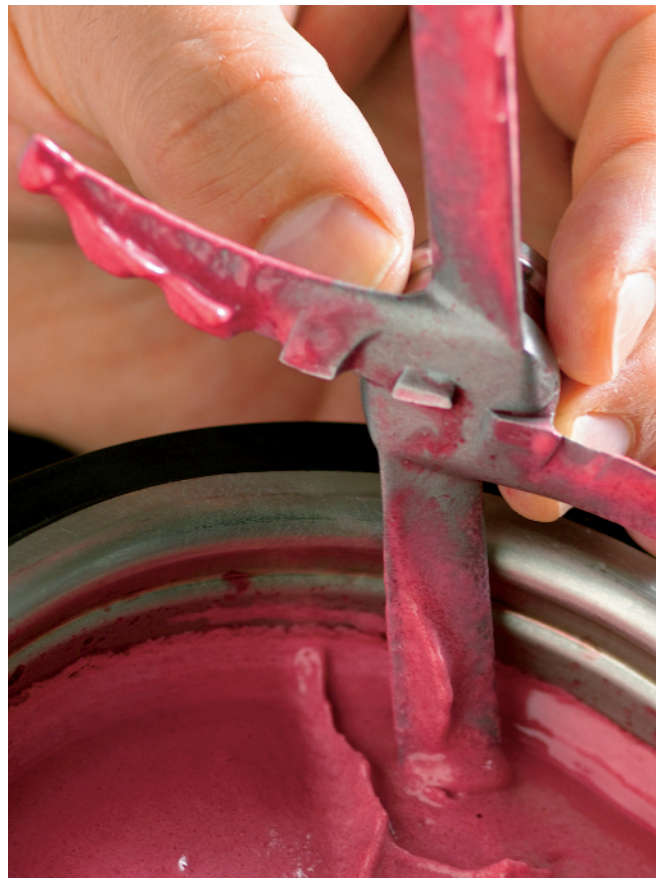
Regardless of whether we like or dislike these brands, they are largely responsible for making ice cream and other frozen desserts popular and accessible to millions of people. This, in a way, is good for artisan manufacturers as well, because they can cater to a more specific niche that will pay a higher price for a more specialized product.

Then and Now

It is important to remind ourselves of how good we have it now. Think of having to hand-crank six flavors of ice cream before lunch service, or making sure that there was enough ice in the “cooler” to keep the ingredients from spoiling too quickly. Even the simplest tools such as a whisk, a ladle, a bowl, or any stainless steel surface weren't available as we know them now until a few decades ago. Have we become spoiled or have we become more efficient? In order to understand where the modern pastry kitchen is now, it is important to appreciate everything that has had to come together through many centuries of trial and error in order for us to make that one special dessert.

As far as ingredients go, they are essentially the same as they have been for centuries: milk, heavy cream, eggs, and sugar for ice cream, and water, fruit juice or purée, and sugar for sorbets. If anything, ingredients today are better understood, and the way they interact with each other to produce a high-quality product has become a science in itself. Arguably one of the most significant steps forward is that industrial manufacturers and pastry chefs have the option to add stabilizers and emulsifiers (see page 18 and page 22) to prolong the shelf life and control the texture of their frozen desserts. This in turn has changed the traditional methods and techniques used to make ice cream and sorbet bases (see Methods, page 59), without making their predecessors disappear completely. Ice cream and

sorbet recipes can now be calculated through formulas (see Formulas, page 61 and 77). A refractometer (one of many modern equipment inventions that help in the pastry kitchen) can help us determine the precise sugar content in a sorbet or granité base and make the necessary adjustments to produce a high-quality product.



What would Marie-Antoine Carême or Auguste Escoffier have thought of Ferran Adrià’s experimental laboratory? The foams, caviars, and “chemicals” used to manipulate food? In a way, Carême could easily be compared to Adrià. In his time he was producing groundbreaking preparations with exuberant presentations and a good dose of shock value. It was embraced and admired then, just as Adrià has become legendary in our day. It is exciting to imagine the state of food and technology in five,

ten, or fifteen years. Both these factors evolve much faster nowadays than they did two hundred years ago, because now there are more people involved in food, there is a constant need for progress and making our lives better and—why not—more entertaining.

What will be the next *espuma* or the next Pacojet? As long as there

The Past in the Present

are chefs who continue to research and experiment, there will be endless possibilities. Will there be new varieties of frozen desserts? New production techniques? New ingredients that improve the texture and shelf life of ice cream? Yes, yes, and yes.

Batch freezers and Pacojets, incredible machines that produce the highest-quality frozen desserts in a matter of minutes and will fit in any corner of a very cramped kitchen, or a blast freezer that can drop its temperature down to $-38^{\circ}\text{C}/-36^{\circ}\text{F}$ in less than five minutes, are nothing short of a miracle. Technology can be very similar to magic, unless you know how it works. Even though I understand how the basic mechanisms of most of the machines in my shop work, I can’t for the life of me explain how in the world a compressor and Freon gas can possibly turn a liquid into ice. In the end I am just a pastry chef who wants to make the best possible product.

Understanding the past is a humbling experience. Having said that, fully embracing technology, information, and new equipment can make you better, faster, and more efficient and can help you produce a higher-quality product. This is an industry in which it doesn’t make much sense to hold on to the past, no matter how nostalgic you might be about Grandma’s hand-cranked vanilla ice cream. In the industry, it will not be nearly as good as what a Pacojet is capable of doing with the same vanilla ice cream base in a fraction of the time. Speed and efficiency are two determining factors in the success or failure of your establishment.

Hygiene and Sanitation in the Contemporary Kitchen

Raw ingredients are more economical now than they were twenty years ago, but not necessarily better. Potentially hazardous foods, such as dairy products, are much safer to consume now since we have the technology to keep most pathogens in check, but it is not unusual to hear about a salmonella or *E. coli* outbreak more often than we would like. Just because there is now an abundance of food, it doesn’t mean that it is better.

Prevention is key when it comes to working in a sanitary environment. We now understand how food can become contaminated, and we also have the knowledge to prevent such contamination. There are many programs that educate food handlers on food safety, and many establishments make it obligatory for their employees to get certified by these companies. The real principle behind

being informed is to put this knowledge into practice every day. Sanitation is not optional, and having the knowledge and the tools to practice food safety should be every pastry chef’s obligation. Ignoring or temporarily dismissing these practices for convenience is grossly irresponsible. The awareness of sanitation needs to be second nature to everyone who handles food.

One of the most important duties for those of us who are responsible for processing and selling food is to make sure we know where our ingredients come from and how to handle them responsibly. The information is available if you look for it. That in itself is another part of the evolution of food; we now have the tools to obtain any kind of information about our ingredients in a matter of seconds with the Internet.



The Role of Frozen Desserts

Rarely will you see a dessert menu without some kind of frozen dessert on it, and this applies to even the smallest diners, in remote locations. The reason for this is quite simple: people love frozen desserts, mainly ice cream. Frozen desserts are an integral part of any dessert menu because they satisfy on many levels: they are refreshing after a heavy meal, they are cold (obviously),

sweet, smooth, and, in some varieties, rich and creamy. They also hit a familiar and nostalgic note, because for many of us ice cream is an important part of our lives, having enjoyed it since childhood. Good times are usually connected to ice cream somehow, and the brain recognizes that.

Now, this doesn't mean that you can't have a dessert menu without frozen desserts, or individual desserts without a frozen component. In fact, it is better if pastry chefs do not saturate their menus with ice cream or sorbets (or any other frozen dessert, for that matter), because as much as they are an integral part of the pastry kitchen, it takes a skilled professional to spread out beyond the frozen. Simply put, some pastry chefs like preparing frozen items for the wrong reasons. They are relatively easy to store and prepare in advance, and they just have to be plunked down on the plate and served with some berries and sauce. Next!

It is interesting to see that more and more savory frozen items are showing up in restaurants. Just because it's frozen, it doesn't mean that it has to be sweet (or too sweet, anyway). What began as a trend in the mid- to late 1990s is sure to become a steady fixture in contemporary gastronomy.

