

People have a built in love of sweetness—no instructions needed. Some researchers believe our attraction to sweet foods goes back millions of years, to a time when most foods in nature that were good to eat were sweet and most bitter or sour foods were poisonous. People who loved sweetness were more likely to multiply, those who didn't, weren't.

Twelve thousand years ago in New Guinea, people started chewing on sugar cane to satisfy their sweet tooth. About 10,000 years later, in India, people learned to make solid sugar from the cane juice—a skill traders eventually brought to the Middle East.

Starting in the 600s, Arab armies began marching out of the Middle East, conquering North Africa and parts of southern Europe. They invaded Spain and introduced sugar to the Spanish, who slowly adopted it. Slowly is the operative word here. Six hundred years later, only a few Europeans could afford it.

But during the 11th and 12th centuries things began to change. The knights who went to the Middle East during the Crusades came in contact with sugar. It was a basic part of Middle Eastern medicine and gastronomy. They loved it. When they returned to Europe they spread the word. Albert van Aachen was a monk who recorded stories of the First Crusade in 1096:

"In the fields of the plains of Tripoli can be found in abundance a honey reed which they call *Zuchra*; the people are accustomed to suck enthusiastically on these reeds, delighting themselves with their beneficial juices, and seem unable to sate themselves with this pleasure in spite of their sweetness. The plant is grown... with great effort... it was on this sweet-tasting sugar cane that people sustained themselves during the sieges... when they were tormented by fearsome hunger."

But the Crusaders did more than just introduce Europe to the idea of sugar. During the early years of the Crusades Europeans conquered large parts of the Middle East; in the kingdom of Jerusalem, they oversaw the cultivation of sugar cane and the production of sugar. The mills are still visible near Jericho. The Knights of Malta got into the sugar trade and so did the merchants of Venice. As a result of the Crusades, Europeans turned sugar production and distribution into a small, highly profitable business.

SUGAR-COATED PILLS

During its extraordinary history sugar has had five main uses: as

a medicine, a spice, a material used to make sculptures, a sweetener and a preservative. And through almost all of its history these functions overlapped. More than 2,000 years ago, a Greek visitor to India reported that he'd found a hard honey, called *saccharon*, with a consistency like salt. It was dissolved in water and drunk as a medicine for the stomach.

From the 10th to the 18th century, sugar was considered a wonder drug and prescribed for coughs, sore throats, labored breathing, and stomach ailments. Every medicine used during the Black Plague contained sugar. To cure impaired vision, doctors blew powdered sugar into the eye.

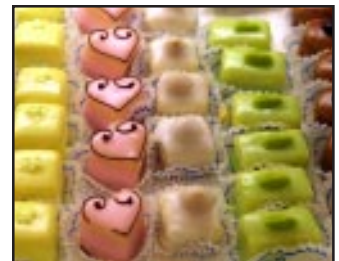
Sugar had become so much a part of medicine that people used the expression, "like an apothecary without sugar" to describe a state of total helplessness or desperation.

SUGAR ON DISPLAY

At the same time sugar was used as a medicine it was also treated as a spice. In wealthy households, tiny amounts were used with other spices to smooth flavors or to soften an acidic taste—not so much to sweeten foods as to make their taste more agreeable. Cooks learned to make a simple syrup from sugar and water and immersed fruits in the syrup to preserve them.

One result of sugar's ability to combine with other ingredients was the introduction of marzipan paste, an edible blend of sugar and almonds that could be used to form sculptures.

During the 1200s bakers in France and England started making sugar sculptures for royal dinners. These were called "*subtleties*"—artistic forms created as objects of beauty that were to be admired, then eaten. Persians had long molded sugar into edible art. There is a remarkable account, describing a life-size mosque in Egypt built entirely of sugar



for a celebration. At the close of the festivities, beggars were invited to eat the building. Because of the large quantities of sugar required and its expense, in Christian Europe *subtleties* only decorated the tables of the nobles and leaders of the church.

During the 15th and 16th centuries, *subtleties* were all the rage.

In Italy, costly and precise replicas of the works of the great sculptors Bernini and Michelangelo were shaped by bakers who themselves were considered artists.

The idea of using sugar to embody feelings was so powerful that subtleties have survived into modern times. Decorated wedding, birthday and anniversary cakes commemorate significant events. Even the yellow marshmallow chicks sold at Easter are modern subtleties.



FROM NAPLES TO NASSAU

During the 13th and 14th centuries the use of sugar in Europe was increasing and by the early 15th century the governments of Spain and Portugal were encouraging entrepreneurs to set up sugar plantations on the Atlantic islands off the coast of Africa—Portugal took Madeira, Spain took the Canaries.

On Madeira the Portuguese wanted to produce something that would be in great demand in the cities of Europe—something they could produce cheaper, better, faster, and in greater quantity than anyone else. Honeybees were producing honey and wax for export. Wheat and wine were doing well but nobody was getting rich. They needed something that would bring in the big bucks, and that turned out to be sugar. The colonists devoted themselves to the production of sugar and by the end of the 1400s, they were exporting almost four million pounds of sugar to London, Paris, Rome, and Constantinople.

Christopher Columbus was well aware that sugar was a highly profitable crop. His mother-in-law owned a sugar plantation on the island of Madeira and Chris had picked up a little change transporting sugar from there to the Italian port city of Genoa. During his second voyage to the New World, he planted sugar cane in what is now the Dominican Republic. It was the first sugar cane planted in the Americas.

RAISING CANE

The Caribbean islands were perfectly suited for the production of sugar cane. They had lots of flat land, plenty of water, and a climate hot enough but not too dry. By 1640 sugar cane had become the crop of choice in Haiti, Puerto Rico, Jamaica, and Cuba.

“Over a million people were in the region when it was first discovered in 1492, but by the end of the 17th century that population had diminished to nothing. It was a pioneer area, but it didn’t have labor. The Europeans understood that if they brought free, independent labor to work those plantations, that labor would simply walk away as long as land could be had for the asking. The only answer was to tie down the labor force. Slavery was the natural answer. And Africa was the nearest place from which to get large numbers of people. So there’s an interesting equilibrium behind this sort of production and human enslavement.”

—Sidney W. Mintz

Producing sugar is a difficult process. It starts with the cultivation of the cane—a tall grass with sweet, juicy stalks that grow to a thickness of two inches and a height of 12 to 15 feet. It takes nine to 18 months to ripen. As a rule, sugar cane produces more calories per unit of land in a given time than any other crop in its climate.

Cane looks like bamboo but instead of having a hollow center, it’s filled with a sappy pulp. The cane must be cut as soon as it is ripe or the juice begins to lose some of its sucrose. And as soon as it is cut the juice must be extracted or it will ferment and rot.

The cane is taken to the plantation’s milling operations where it is chopped, pressed, and pounded to extract the juice. Through



a series of complex heating and cooling processes, sucrose crystals are formed from the juice.

The labor needed to carry out the work quickly was a serious

economic challenge for sugar makers. Workers on tight schedules must coordinate field and mill operations.

“The plantation involved two kinds of labor forces. Unskilled, to do the cutting and hard labor, and skilled to do the quasi-chemical processes involved in manufacturing sugar. It’s an enterprise very early in human history that involves two kinds of labor forces: factory and field. It also involved elements of time discipline, which made it really quite exceptional in the history of industry. You’ve got some of the main features of modern capitalist enterprise, but the labor force, for New World plantations at least, was almost entirely enslaved, and this was true almost from their very beginnings, until the middle of the 19th century.”

—Sidney W. Mintz

African slaves brought to work in the fields provided a continual supply of free labor. During 400 years of African slavery, at least 10 million people were shipped to the Americas.

THE BRITISH ARE COMING

The Spanish dominated the Caribbean throughout the 1500s, but the 1600s belonged to the English. They fought the most, conquered the most colonies, imported the most slaves, and moved faster and further than anyone else. They were the primary designers of the plantation system used to produce tobacco, rice, and cotton; but the most important product by far was sugar. And England’s consumption of sugar kept pace with the new supply.

Sugar production in the Caribbean became a key to England’s economic development. To process the sugar cane, they built mills and then factories to make the milling machinery. They needed to feed and clothe the slave population, so a salt-cod business developed, and then a textile industry.

The English built ships to transport goods to and from its islands. To coordinate all these activities, she developed international trading companies that gave her worldwide economic leverage.

International trading companies moved goods—and people—

across the Atlantic Ocean in a pattern known as the “triangular trade.” Ships filled with manufactured goods—tools, weapons, and textiles—sailed from Europe to West Africa, where they traded their cargo for slaves. The slaves were shipped to the West Indies where they were sold. The profits bought sugar, coffee, cotton, and tobacco, which were sent back to Europe.

Merchants involved in shifting these goods and people from place to place made a profit on every transaction. Triangular trade became the main form of English overseas commerce. The English were becoming the most powerful businessmen in the world—and in the process, sugar was pouring into their homeland.

ONE LUMP OR TWO

By the end of the 17th century, the English in the Caribbean were sending home almost 50 million pounds of sugar, in addition to the sugar they shipped directly to the North American colonies.

“Up until around 1680 sugar was for the elite—the rich and the privileged. But, from about 1700 onward you see sugar percolating down the British social system to the poor—to ordinary, everyday people. And this is the same time that tea becomes important in British life. We have to keep in mind that tea, coffee and chocolate are all new for Europe in the 17th century. All of them are stimulants, and are bitter. A cup of black tea, which provides a terrific stimulus kick, with a hell of a lot of sugar in it to provide lots of calories to a generally undernourished population, was important in British history because it meant that an ordinary working man’s cold lunch is turned into a banquet.” —Sidney W. Mintz

Hot, sweet tea quickly became a popular drink throughout England. British business interests pushed tea rather than coffee or chocolate and its victory over the competing drinks had nothing to do with taste. Unlike coffee or chocolate, the teas that were



promoted in England were grown in China and later in India.

The British had two million acres of tea-producing plantations in India. They built roads and ports, brought in tools and equipment, and imported managers. Within a few decades, they had occupied large areas of the Indian subcontinent. Indian tea started as a business but ended up as the basis for ruling a colony.

Tea was also promoted by the English temperance movement in the 19th century. From a moral point of view, abstinence from alcohol protected the family and encouraged thrift, reliability, and honesty. From a business point of view, temperance was essential. You couldn't have an effective capitalist culture if the factory was dependent on a bunch of absentee-ridden drunks. The major instrument for securing temperance was tea.

“The tea temperance movement in Britain gave working people place to go. They really did not have places of recreation in their

homes, which were mean and small. So they were provided with tea parlors and with tea gardens and with afternoon teas. All of these devices were built around the particular stimulant which, when heavily sweetened, really made a difference in diet as well. And I see that movement as closely connected to labor and religion. Sobriety was touted and was sold by the church and bought by the British working man in connection with a family activity. Tea was a drink that everybody could drink, not just the mother and father but the children as well. It brought people together whereas alcohol was seen as driving them apart.”

—Sidney W. Mintz

During the 1700s, sugar developed a more everyday character and became the basis for English sweets—sweets that became treats. It included everything from candy to pastries and puddings.

In 1760, Hannah Glasse, at that time England’s Julia Child, published a confectionery cookbook for the middle class. It is filled with recipes using sugar and clearly demonstrates that by then sugar was no longer considered a medicine, or a spice limited to use in the kitchens of the rich.

There is no biological reason to have sweet foods at every meal. The idea of a final sweet course came into fashion at the end of the 1600s but only among the richest European society. A dessert course, usually a pudding, only became part of the common meal in the late 1800s

When the price of sugar dropped during the mid-1850s sugar became the preservative of choice for the jam manufacturers. Suddenly their products could be mass-produced, and they became inexpensive enough to attract a large audience.

They were extremely popular with the lowest economic groups in England; bread and jam fed working-class children for two out of three meals.

The English factory system promoted the use of jam for a number of reasons: it was ready to eat so it didn't take time away from work, it did not require heating so no money was spent on fuel, and it provided a large number of calories at a very low price.

“As more women went out to work there was a need to develop

foods that would be available to the children who might be home without their parents, and speeding up food production at dinner became important. One of those products was the factory production of jam. Because jam, unlike butter, doesn't go rancid, you can leave it on the table. A kid can get home and take some store-brought bread and smear it with jam. In no time at all there was hardly a Scottish youngster who would eat bread without jam smeared on it. And this was important, again, in helping to develop a schedule, a time schedule, that suited the factory rather than the family, in the same way that



tea was the first pause that refreshed. So jam on bread became the second pause that refreshed." —Sidney W. Mintz



SUGAR AND CAPITALISM

The history of sugar in England has been repeated in many countries throughout the world, especially the English-speaking world. By the late 1880s people in the United States were consuming 60 pounds of sugar per year. And whatever British capitalists learned about sugar as a source of profit, North American industrialists learned it faster. Instead of Barbados the United States had Puerto Rico and Cuba. In the Pacific we had Hawaii and the Philippines.

Many authorities believe that the sugar business that developed in the Caribbean was an important stage in the development of modern capitalism. It required the investment of large amounts of money, much of which was supplied by Dutch investors. Planters were often absentee businessmen who operated on borrowed money that usually came from big-city banks—and success was measured in profits. It established a system of world trade and helped put an end to the feudalism that for centuries had been the primary economic tradition in Europe. But the sugar business used an enslaved labor force. And that was confusing to economic philosophers like Karl Marx.

"If you separate these out as systems—feudalism on the one hand, and capitalism on the other—then the fact that the labor force of these enterprises was enslaved is a really difficult issue. It puzzled Marx, who was doubtful whether sugar plantation owners were in fact capitalists, and he indicated his doubts in his writings. So it's a kind of contradictory feature. But I would say yes, they were capitalist enterprises, because I think what matters is what capitalists were doing. Not whether or not their labor force was enslaved. Because surely the money made from the sugar plantations of the West Indies eventuated in support of the capitalist banks in England, and France and the Netherlands."

—Sidney W. Mintz

For centuries, no other commodity on the world market wielded as much political influence. Sugar affected almost every aspect of government policy from wages to wars in much the same way that oil does today.

"In many ways sugar is an ideal substance. It serves to make a busy life seem less busy; it seems to ease the change between work and rest; and it provides a quick sensation of fullness and satisfaction. No wonder the rich and powerful liked it so much and the poor learned to love it. It is symbolically powerful."

—Sidney W. Mintz

Today, more than one out of every ten calories consumed throughout the world is taken in the form of a sweet and that number is growing. It appears that the good life, and the rich life, is still the sweet life. And we owe it all to Columbus—or maybe to his mother-in-law.

TO LEARN MORE

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