



# CHOCOLATE!

## The History of Chocolate

Excerpted from Jack Weatherford, *The History of Chocolate*, and [www.mrkland.com](http://www.mrkland.com)

For many millennia Cacao grew in the understory of the tropical rainforest the northern Amazon basin. Together with the plethora of plants, animals and insects of the rainforest, it thrived in the shade on the forest floor and lived on the nutrients and water passed down from the canopy above. The history of this popular plant's use is somewhat clouded by numerous wildly conflicting stories. The myths, legends, propaganda, and inaccuracies in the history of Chocolate are profound.

Cacao has been a cultivated crop for at least 3,000 years, probably quite a bit more. Before that it is certain that the seeds of wild Cacao trees were gathered. Initially a few Cacao trees would be planted just inside the heavy rainforest, mixed with both wild and cultivated understory plants. Eventually that grew to more specific plots of Cacao, still under the canopy and within the rainforest. The people who first utilized Cacao were the inhabitants of what is now Venezuela in northwestern South America, where the tree is native. The Olmec Civilization (3500 to 2500 years ago) consumed the beverage and it was used to fortify soldiers during marches and in battle.

Cacao was clearly highly valued by these people and they spread it northward through trade with their neighbors. It was probably the Maya, over 1500 years ago, who brought Cacao to Yucatan in what is now Mexico. Maya urns were often decorated with images of Cacao Pods. The Aztecs who got Cacao from the Maya, used Cacao in a number of ways, one common way was as a bitter spice in food (such as today's Molé sauce). The common people often used Cacao as a spice, and possibly also as a base for pasta or bread.

The most well known way that Cacao was used (and the way that made the deepest impression on the European conquerors) was as a drink. The beans were toasted, ground up, put in hot water and often a bit of maize, vanilla, or chilies were added to create the beverage of the Emperor. The water had to be extremely hot for the mixture to work, and from that came the phrase, still used in Mexico, Like Water for Chocolate to mean as hot as anything you can imagine. It seems likely that consumption of this drink was limited to nobility, priesthood, and ritual occasions. (Mixtecs and Oaxaca used it in marriage rites of nobles and deities.) While the Maya drank Chocolate hot, the Aztecs seem to have often taken it cold. The term 'food of the gods', (the

origin of the genus name Theobroma) is not Aztec, nor Maya; it was coined by a European in the 17th century! It is well known that Cacao Seeds were valued so highly throughout Mesoamerica that they were used for centuries as currency.

The Aztecs called the drink, and apparently the bean as well, Xocoatl. From this word comes the pan-European word Chocolate. (I have seen a reference of questionable dependability which suggested that "xocoatl" meant "foam in water," and therefore referred to the drink, not the plant.) The word Cacao comes from comes from the Mayan word for the plant was "Cacao." Because of a spelling error, probably by English traders long ago, these beans became known as Cocco beans.

When Europeans first made contact with the Aztec civilization, Cacao was being cultivated and used extensively. The Spanish Conquistadors quickly noticed the benefits of Chocolate and used it to keep their armies marching long distances with little food. From the Aztecs the Spanish took it to Europe -- where it became part of the then European-wide Imperial quest for more drugs for the polite high society, competing with the British tea and opium, the catholic countries' coffee and the young USA's tobacco.

There is a great deal of differing information about the arrival of Cacao in Europe. Some sources say that Columbus himself brought the first beans; others say it was Cortes, and a whole list of others have their supporters. Actually Columbus never showed much interest in the beans that he thought were sheep turds. (He actually burned an entire cargo of Cacao for this reason.) In any case, although almost every country claims to have been the first in Europe to utilize Chocolate, clearly the Spanish were first. Initially (in the 1500s), Europeans, primarily the Spanish, were put off by the drink's traditional spicy bitter flavor so they so they began adding European (and recent American import) flavorings to Chocolate, such as vanilla, cinnamon, black pepper and, of course, cane sugar.

Chocolate was widely used in Catholic countries after 1569 when Pope Pius V declared that Chocolate (the drink) did not break the fast -- despite the hearty nutritional aspects of Chocolate. Every Pope for 190 years after him, from Gregory XIII to Benedict XIV affirmed this decision -- the popes loved Chocolate. It became a popular way to nourish oneself on the many religious fast days. This may have reached it's climax when Pope Clement XIV was killed with a cup of poisoned Chocolate in 1774!

By the middle of the 1600s, Chocolate houses had opened in Europe; this is before coffee houses started up. Chocolate

Houses became social clubs, meeting places for the elite, places to visit and to talk politics. It was trendy and extremely expensive. Coffee was much cheaper and therefore not for the elite, but for the masses. Coffee houses inherited the popularity, the community, and the political atmosphere from Chocolate houses when the invention of the Dutch press removed the narcotic effect. The coffee house culture went on to incubate the democratic political movements of the 18th & 19th centuries.

At this time the way they made the Chocolate drink was to grind the whole bean and add sugar and hot water, it was delicious, mildly intoxicating and somewhat 'Aztec', but apparently too rich and for the European palate. In 1828 the Dutch (Coenraad Van Houten had the patent) developed a press to force about initially 50% and with improvements, 98% of the fat out of Cacao paste -- producing the powder which we are familiar with today. The powder was then mixed with milk, instead of water, to add a little fat, but not nearly as much as was removed. (3% vs. 54%) The pressing process also produced a major commercially viable by-product: Cocoa Butter!

Twenty years later at the Joseph Fry factory, they discovered a way to mix melted Cocoa Butter back into Dutch powder to create a gooey mass which could be molded: the first bar Chocolate. In 1875 two Swiss men, Daniel Peter and Henri Nestlé used the sweetened condensed milk they had developed for concentrated infant food formula in to create milk-chocolate. The low water content of the milk made it possible to mix it with the Chocolate into a bar that did not spoil quickly. Rudolphe Lindt developed the conching process in Switzerland in 1879, producing for the first time, smooth creamy Chocolate bars like we are familiar with today.

The New World, Mexico and Costa Rica, but primarily Venezuela, was the main supplier of Cacao until the start of the 20th century when the center of cultivation moved first to the Caribbean and then to Africa (with some also in Asia). In the late 19th century major companies started growing Cacao on large plantations, generally clearing rainforest to provide open land.

In 1900 Milton Snavely Hershey, a Mennonite from Pennsylvania, began producing milk-chocolate bars and "kisses" with great success. He was anti-alcohol (As was Cadbury & Fry) and saw Chocolate as a good, profitable alternative. In less than ten years he was able to buy two entire towns and name them after him, one previously called Derry Church, Pennsylvania, and the other in Cuba, around his sugar mill! The empire grew even larger during World War I, when Milton Hershey encouraged the US Army to add four Hershey bars to each soldier's daily ration!

Chocolate remained popular in Europe, and after World War II many Belgian and French Chocolatiers specialized making fine, high grade Chocolate. Eventually, in 1994, the Chocolate war. established standards and started the huge wave of pure Chocolate Bars made of 70% or more, Cacao. The past 2-3 years have seen a surge in small label, fine, single-source and organic chocolates. Vanilla or chili, hazelnuts or almonds, pure or milk: fine chocolate has a place in almost every culture in the world now.

## Chocolate Does Not Contain Caffeine

*excepted from [www.mrkland.com](http://www.mrkland.com)*

There is a persistent urban legend that Chocolate contains caffeine. It would seem that this rumor is based primarily on confusion between two similar alkaloids: caffeine and Theobromine. Theobromine is the active ingredient in Chocolate and it occurs only in Cacao. The two stimulants are related and have similar structures, but are very different chemicals with different properties, effects, and origins. There are of course, some Chocolate products that have added caffeine, but it does not occur naturally in Chocolate.

This rumor seems to have a life of its own; it won't go away and yet most references to it are references to the urban legend itself! Amusingly, almost all of the Chocolate & caffeine references on the Internet are circular. (Follow the references through a few links sometime -- you often wind up back at the page where you began!!) It is actually quite common to see references that confuse Caffeine and Theobromine. Many people and some semi-scientific sources confuse the two.

There is no scientific substantiation that Chocolate contains caffeine, and a great deal of evidence that it does not. The Biochemist, (Apr/May 1993, p 15) did chemical composition tests where they specifically distinguished between Caffeine and Theobromine. They found regularly up to 1.3% by weight Theobromine in Chocolate. They also found other pharmacologically active compounds including up to 2.20% Phenylethylamine up to 1.54% Tele- methylhistamine and occasionally up to 5.82% Serotonin. They could not detect any Caffeine at all. (The Merck Index, 12th Edition says that a very small amount of caffeine is found in the hulls of the Cacao seeds, the hulls are discarded before processing.)

There is also confusion with the Andean tea Maté. Like Chocolate, Maté clearly has stimulant properties, which are obviously very different from caffeine's effects; however many people believe it contains caffeine. Yerba Maté contains Mateine, a xanthine even more closely related to Caffeine than Theobromine. It is a simple stereo-isomer of caffeine. Mateine, like Theobromine, is not addictive.

Theobromine and caffeine are similarly constructed types of pharmacologically active chemicals metabolized by the liver. Both are stimulants but with very noticeably different effects:

Theobromine:

gentle, mild effect, very slow onset, long lasting  
50% still in bloodstream after 6 to 10 hrs  
increases feeling of well being, mild antidepressant  
stimulates cardiovascular and muscular systems

Caffeine:

intense strong effect, fast acting  
rapid dissipation, 50% in bloodstream after 2-5 hrs  
increases alertness, increases emotional stress  
stimulates cardiovascular and respiratory systems  
strong effect on central nervous system  
many people allergic, extreme diuretic

In both cases, smoking cigarettes accelerates the dissipation from the system.

So, enjoy chocolate, and don't feel guilty--at least not about caffeine.