

INTRODUCTION

Dear Beer Enthusiast:

When you think of things that have staying power, what comes to mind? Stonehenge? The Pyramids? The Great Wall of China?

Perhaps you should consider moving beer to the top of that list. For 8,000 years and in almost every major civilization, beer has remained a staple. The Babylonians, Assyrians, Egyptians, Hebrews, Africans, Chinese, Incas, Teutons, Saxons and various wandering tribes all discovered it by various independent means.

With that kind of track record, it seems unlikely that interest in good brews will evaporate any time soon — but it is possible that one day you might need to cover an aspect of brewing with which you are unfamiliar. When that time arises, it would help to have a good reference about the art and science of beer. Something to explain the differences between lautering and lagering, between helles bock and doppelbock.

We are happy to present this copy of *Beer: A Reference Guide to Ingredients, Brewing Science and Styles* for that purpose. We hope it will serve as a valuable tool that provides easy-to-access bits of information about the world of brewing.

Crafting beer remains one of the finest examples of our ability to use nature's own processes to meet our needs. We welcome you to call us at 1-800-DIAL-BUD any time you may have questions about this enduring beverage. It's what we're good at. It's what we do.

Sincerely,
Your Friends at Anheuser-Busch

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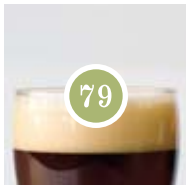
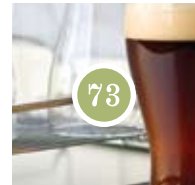
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VOLUME I: A BRIEF HISTORY
7000 B.C. TO THE PRESENT



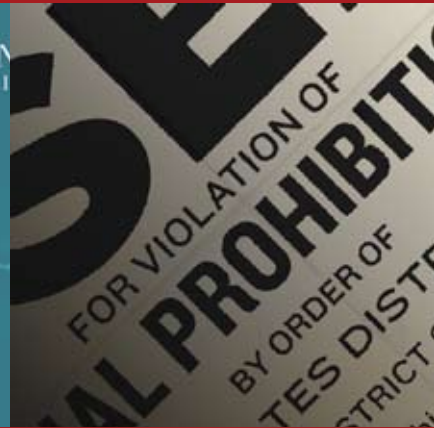
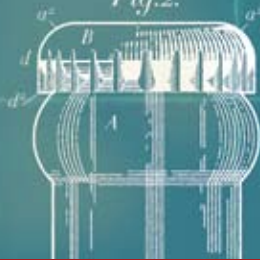


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W. PAIN
BOTTLE SEAL

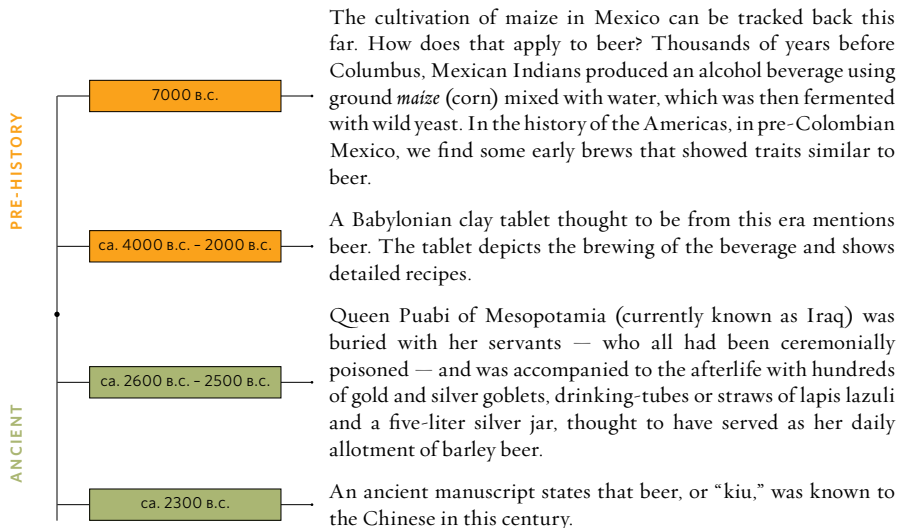
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Fig. 2.

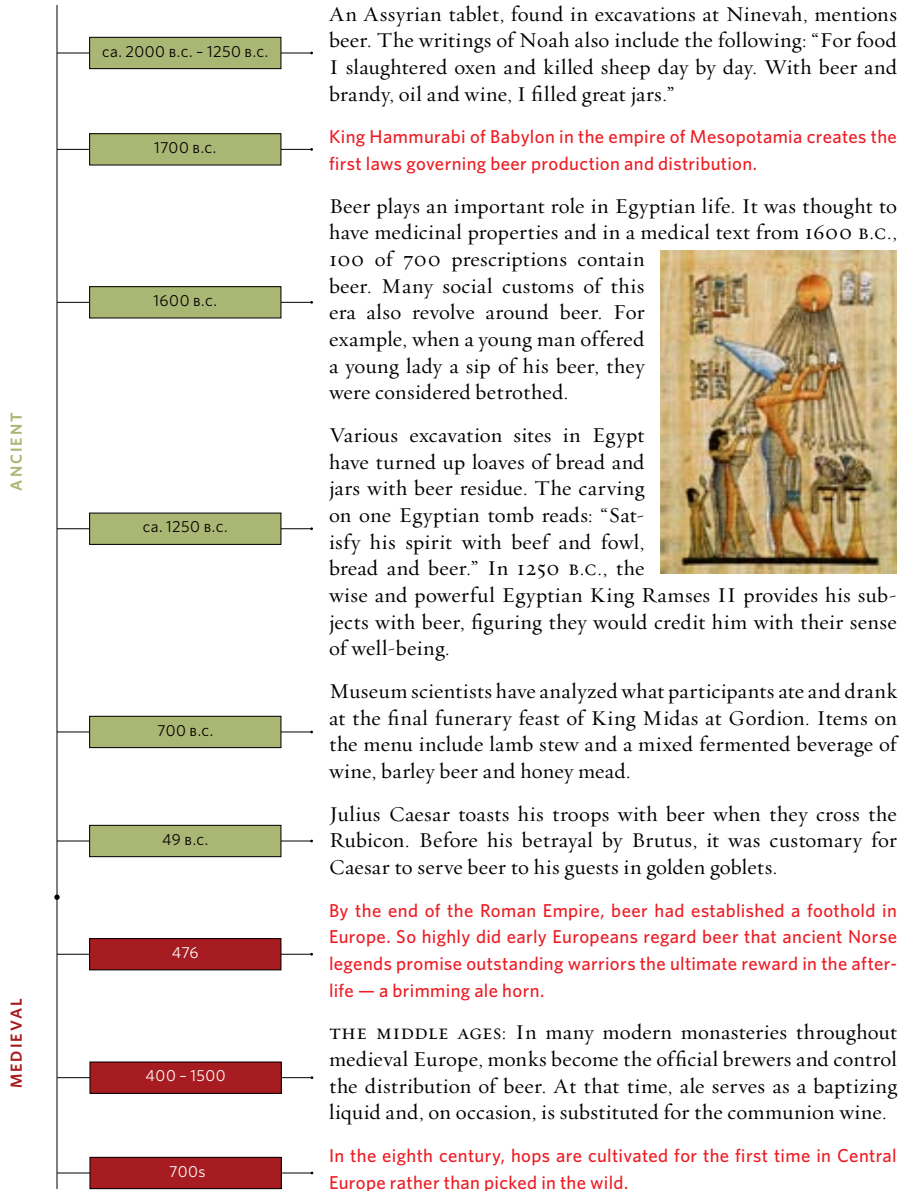


THE STORY

We can trace the beginning of beer far back beyond the dawn of recorded time. It seems certain beer was the first alcohol beverage known to civilization. No one really knows the true series of events that led humans to discover this brew, but we do know the Babylonians, Assyrians, Egyptians, Hebrews, Africans, Chinese, Incas, Teutons, Saxons and various wandering tribes all discovered beer by various independent means. Most likely a crude form of beer came about by accident when someone mixed barley with water, then let it sit long enough for stray yeast spores to settle, triggering fermentation.



THE STORY



THE STORY

After consuming a bucket or two of vibrant brew they called aul, or ale, the Vikings would head fearlessly into battle, often without armor or even shirts. In fact, the term “berserk” means bare shirt in Norse, and eventually took on the meaning of their wild battles.

795 - 1066

The first documented use of hops in the brewing process occurs.

1086

The Magna Carta is signed. Ale was so important at the time, this charter specified a standard measure of it.

1215

Marco Polo writes about Chinese beer while accounting his travels.

ca. 1254 - 1324

“King” Gambrinus, a longtime symbol of the brewing industry to whom some attribute the addition of hops to beer for the first time, becomes an honorary member of the Cologne brewers’ guild.

1288

By the late 1300s, beer was well established as the national drink of England. Both the common folk and the nobility enjoyed its refreshing qualities. Queen Elizabeth I herself substitutes a potent ale for orange juice as her breakfast beverage.

ca. 1300s

The technique of lagering originates in the Bavarian Alps.

ca. 1400s



When Columbus drops anchor off the shores of America, one of the first things offered to him and his crew was a fermented maize beverage. In one of his letters, Columbus mentions he found the natives produced a beverage similar to English beer. He describes it as a “clear, lovely amber liquid — dense, more than light — which was beaten with a wooden stick before drinking to produce a great froth.”

1492

Hops became the only accepted spice for beer by the 16th century.

ca. 1500s

William IV, the Elector of Bavaria, decrees that only water, malted barley and hops can be used to make beer, thereby establishing Reinheitsgebot, Germany’s beer purity law that remains in effect to this day.

1516

When the Virginia colonists settle in Jamestown, one of the first tasks they undertake is to brew a beer. In 1587, they successfully created an ale using corn.

1587

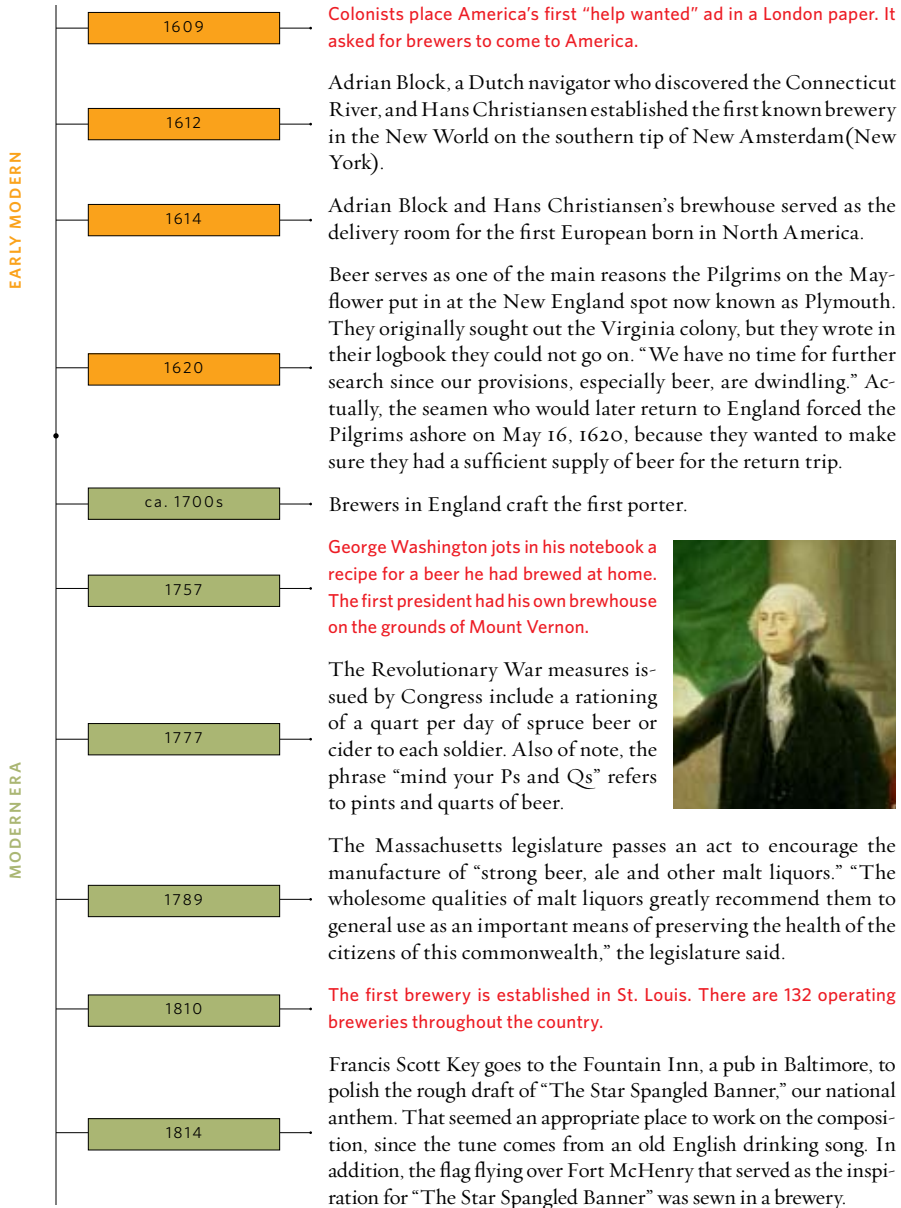
The Virginia colonists record receiving their first shipment of ale from England. Unfortunately, the sailors drank most of the substantial consignment during the voyage.

1607

MEDIEVAL

EARLY MODERN

THE STORY



THE STORY

The advent of the clipper ships enables the settlers to have access to live European yeast cultures for their brewing, since the transatlantic voyage with these new fast ships takes only three weeks. Prior to this time, none of the yeast in the beer casks sent to America would have been very healthy after the long, hard trips with no refrigeration.

ca. 1835 - 1845

A brewer named John Wagner brings his lager yeast from Bavaria to his new brewery in Philadelphia, thereby establishing the lager industry in America. This event was coupled with the discovery that blocks of ice harvested from rivers or lakes could keep beer and food cold for many months, well into the summer. About the same time, European brewers begin moving away from ale yeast and start producing more lagers using the new bottom-fermenting yeast from Bavaria. Bock beers make their first appearance in America during this year as well.

1840

Josef Groll and Johann Eisner produce the first pilsner beer in Pilzen, Czechoslovakia, at the Bürgerliches Brauhaus by using soft Pilsner water, local Saaz hops, local modified malt and bottom-fermenting yeast from Bavaria.

1842

George Schneider founds the Bavarian Brewery, which later became known as Anheuser-Busch.

1852

The U.S. government launches the Internal Revenue Act of 1862 to help finance the Civil War. This legislation places an excise tax of one dollar per barrel of beer sold, plus a special license fee for individual brewers. The government initially says this tax will expire at the end of the war, but somehow forgets about it when Lee surrenders. A federal excise tax on beer still holds today.

1862

Matthew Vassar, a Poughkeepsie, N.Y., brewer, establishes Vassar — the first privately endowed college for women. A campus song immortalizes the school's benefactor in these words: "And so you see, for old V.C., our love shall never fail ... Full well we know, that all we owe to Matthew Vassar's ale."

1865



Anheuser-Busch becomes the first U.S. brewery to use pasteurization for its beers. Around this time, the company also adopted the use of artificial refrigeration machines to lager the beer at the brewery and started developing its coordinated system of railside icehouses to support a refrigerated railcar fleet.

ca. 1870s

With the help of the German immigrants who bring their trade with them, the beer industry expands rapidly, reaching a record number of 4,131 breweries in this year. The number of breweries begins to decline after this as improved methods of production and distribution meant fewer larger breweries could produce more beer more economically.

1873

MODERN ERA

THE STORY

MODERN ERA

1876	—	—	<p>Budweiser is invented and America celebrates its centennial. This same year, Louis Pasteur publishes "Studies on Fermentation," which made brewing a more scientific procedure and showed brewers how to culture the right organisms for good beer.</p>
1892	—	—	<p>Robert Sputh of Dresden, Germany, invents the wooden pulp coaster. That same year, William Painter of Crown Cork and Seal Co. in Baltimore invents the crown cap.</p>
1893	—	—	<p>The Rev. Howard Hyde Russell founds the Anti-Saloon League with the goal of suppressing the saloon.</p>
1909	—	—	<p>Teddy Roosevelt takes a large supply of beer (more than 2,000 quarts) to Africa for his hunting expedition.</p>
1910	—	—	<p>The number of breweries in the United States has dropped to 1,500 due to the temperance movement and its growing support at the turn of the century.</p>
1919	—	—	<p>Prohibition is ratified.</p>
1920	—	—	<p>Prohibition becomes effective and only 1,180 breweries remain in operation.</p>
1933	—	—	<p>Prohibition is repealed. Only 600 breweries resumed production.</p>
1935	—	—	<p>The Krueger Brewing Co. of New Jersey first offers beer in cans in Richmond, Va.</p>
1940	—	—	<p>Beer production reaches the level of the pre-Prohibition years, with only half the number of breweries in operation as in 1910.</p>
1942 - 1945	—	—	<p>Anheuser-Busch changes the color of the Budweiser cans from gold to olive green as a matter of camouflage for troops serving in World War II.</p>
1951	—	—	<p>Anheuser-Busch became the first brewer to build a brewery outside its home city.</p>
1954	—	—	<p>Because beer has been carried on almost every major expedition of the British Army, beer shortages have been dealt with in ingenious ways. In 1954, beer was placed in sandbags filled with sawdust and dropped by Royal Air Force pilots to troops in the Malayan jungle at Christmas.</p>
1959	—	—	<p>Coors introduces the aluminum can.</p>
1969	—	—	<p>Canned beer outsells bottled beer for the first time.</p>
1972	—	—	<p>Oregon becomes the first state to adopt a container deposit law.</p>
1975	—	—	<p>Lite Beer from Miller is introduced by the Miller Brewing Co. and becomes America's first successfully marketed light beer. It is later re-named Miller Lite.</p>



THE STORY

Falls City Brewing Co. of Louisville, Ky., introduces Billy Beer, named after and promoted by Billy Carter, brother of then President Jimmy Carter. After an initial splash, its sales quickly plummet.

1977



Anheuser-Busch introduces Budweiser Light nationally. Beer is renamed Bud Light in 1984.

1982

Bert Grant's Yakima Brewing and Malting Co. opens. This represents the first time since Prohibition that a brewery is allowed to not only sell its beer at its own bar on premise, but serve food.

1982

Hudepohl Brewing Co. of Cincinnati introduces Pace Pilsner, America's first low-alcohol beer since the repeal of Prohibition.

1983

Anheuser-Busch breaks the billion barrel production mark since the founding of the brewery. This is the largest production of beer by a single brewer in history.

1986

The federal excise tax on beer is doubled in America.

1991

It becomes legal to put the alcohol content of beer on containers. This same year, Bud Light becomes the No. 1 selling light beer in America, overtaking Miller Lite.

1994

Anheuser-Busch introduces "Born-On" dating on its product labels.

1996

South African Breweries purchases Miller Brewing Co., creating SABMiller PLC.

2002

Molson Inc. of Montreal purchases Adolph Coors Co., creating Molson Coors Brewing Co.

2005

Anheuser-Busch becomes the exclusive U.S. importer of a number of InBev's premium European import brands including Stella Artois, Beck's and Bass Pale Ale, among others.

2007

Anheuser-Busch introduces Bud Light Lime and Budweiser American Ale.

2008

Anheuser-Busch and InBev combine to become Anheuser-Busch InBev, the world's leading brewer.

2008

MODERN ERA

