

LIBATIONS
OF THE
EIGHTEENTH CENTURY

A CONCISE MANUAL FOR THE BREWING OF
AUTHENTIC BEVERAGES FROM THE COLONIAL ERA
OF AMERICA, AND OF TIMES PAST

BY DAVID ALAN WOOLSEY

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*Libations of the Eighteenth Century: A Concise Manual for the
Brewing of Authentic Beverages from the Colonial Era of
America, and of Times Past*

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For my wife,
Peeta,
who put up with all the mess.

Introduction

A journey to a historic battlefield often provides the visitor the opportunity to speak with people who attempt to relive the era, which created the historic site. These people are called *reenactors*, and they are more than costumed characters provided for the entertainment of tourists.

Reenactors refer to themselves as *living-historians*. Their goal is to experience historic events on a more personal level not found through simple scholarship. While the living-historians pursue their chosen eras, they also provide entertainment and education to visitors.

Beyond living-history is *experimental archaeology*, where the historian researches the customs, technology, and/or skills from a chosen era, and attempts to duplicate them. Because terminology, customs, beliefs, and knowledge change with the centuries, cryptic and mysterious references are left behind to puzzle the scholar. It was just such a puzzle, and the investigation to find a solution, which led to this book.

I chose North America in the eighteenth century as my era of investigation. The fledgling colonies, the early settlers and the wilderness with their trials and triumphs intrigued me. Learning how to use a flintlock rifle, and acquiring the skills of the *long-hunter*, conjured up images in my mind of Simon Kenton and Daniel Boone.

As I pursued general research I stumbled across recipes to drinks no longer found. When I stumbled upon the eighteenth century belief that plain water was unhealthy, I began to wonder why? What did colonial Americans drink on a regular basis if not water? I found several quaint, old beer recipes, and as I was not yet a home-brewer, I needed help to decipher the information. Off to my local craft-brew supply store I went for help.

The first project was a no-malt, molasses beer, quite common with the colonials. The brew master at the local

craft-brew supply house began by explaining about the changes in wild hops and modern hops. He continued with alpha acids, fermentability of sugars, modern malting vs. pre-industrial malting, and yeast types. As my eyes glazed and began to cross, he realized he had a total novice in the shop. He handed me a packet of yeast, some hop pellets, and the necessary equipment. He then handed me some instructions, and I gave the recipe a try.

I expected to get something interesting, but not worth drinking or duplicating. Instead I produced a drink worthy of reproduction and documentation. (Fine, so I admit I was lucky. Penicillin was an accident too.) Even the brew master at the shop was pleased. After some discussion about early America and its beverages, this project was begun.

This book contains recipes more than two centuries old, converted to home use and craft-brewing standards. All of the recipes were converted over to standard five-gallon batches. I saw no reason to plague the reader with a quest for eighteenth century conversion tables, when all the testing could be done at the five gallon standard volume.

Beware of any recent text on antique beverages that does not convert the recipes for the reader. One source found for this book claimed a desire to allow the reader the privilege of converting the recipes. I suspect they did not convert the recipes to modern equivalents, as they may not have known how. All of the recipes were tested for palatability. Some of the recipes used while researching this book were excluded from the final draft as they produced undrinkable brews.

This book is not restricted to ale, but also includes mead, hard cider, mixed drinks of the period, and non-alcoholic brews such as teas and coffees. The reader will discover that the recipes are all titled "beer", as they were called in the eighteenth century. To discover why, read the book!

The original final draft of this book had a lot of redundancy in the brewing of the recipes. This was done to

avoid having to thumb back-and-forth from one section to the next when brewing. The publishing method finally chosen set the price of the book depending on the total number of pages in the text. Redundancy in the recipes increased the page count, and increased the price to the reader. This final version omitted the redundant brewing instructions, and condensed the brewing “tips” from the recipes into a standard set of tips now found in Appendix B.

Hopefully, the reader will find this work entertaining. By all means try some of the brews, and enjoy a libation favored by the founders of our nation. Good luck and enjoy!

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Chapter I

*Here lies in place a Hampshire Grenadier,
Who caught his death by drinking cold small beer,
Soldiers, take heed from his untimely fall,
And when you're hot, drink strong or not at all.*
Epitaph, 1764

The History of Beer

Ale & wine have a past that extends into prehistory. From ancient cave paintings that show humans gathering wild honey to the Egyptians, alcoholic beverages have been a part of human culture for millennia.

The oldest known document, inscribed on clay, dates from Babylon from 8000-6000 BC. The tablet tells of the brewing of beer, called *sikaru* by the Babylonians. By 4000 BC. The Babylonians had no less than six different types of beer, brewed from barley, spelt, and honey, while the first use of hops is believed to have been in Sumer around 3000 BC.

At the same time the Egyptians were brewing their own beer, and hops are known to have been used in some Egyptian beers dating from 600 BC. Beer was included in Egyptian religion, and Pharaoh Ramses III is recorded as having consecrated 466,303 jugs of beer to his gods in 1200 BC. The earliest Biblical reference to beer is in Moses' time (Num. 6:3), and it was probably a beer made from barley or spelt, or a combination of the two.

Early Laws

Beer was regulated early in its history. The Code of Hammurabi, an ancient set of written laws from the twenty-third century BC, lists laws and penalties levied against women beer-shop owners. There were no less than four separate articles in the ancient code dealing with beer-sellers and shops. These stated,

"If a (female) beer-seller has not accepted grain as the price of drink, but silver by the full weight was accepted and has made the price of drink less than the price of grain, then that beer-seller shall be prosecuted and thrown into the water."

"If rebels meet in the house of a beer-seller, and she does not seize them and take them to the great house, that beer-seller shall be slain."

"If a priestess or holy sister who has not remained in the convent shall open a beer-shop or enter a beer-shop for drink, that woman shall be burned."

"If a beer-seller has given sixty qua of drink on credit for a festival, at the harvest she shall receive fifty qua of grain."

It is interesting to note the first quotation is a price regulation with a penalty involving water. It is possible this punishment was similar to the *dunking chair* used centuries later in England and colonial America, or perhaps swimming skills were not well known at that time, resulting in the probable drowning of the offender. The second quotation involves the use of the beer-shop as the location for plotting insurrection. It would appear that some of the beer-houses were less than reputable establishments.

Not all women brewers in the ancient world were keepers of back-alley haunts suitable for plotting treason. The Sumerians honored women brewers in daily life as well as in religion. Their beer-deity was the goddess *Nin-Ka-Si*, and legend states that *Nin-Ka-Si* had a daughter *Siris*, who was the goddess of the *wort* (unfermented beer).

At least one lady rose beyond mere brewing. *Ku-Baba* was a *Tsabitu* (breweress), who lived in ancient Sumer in the year 2400 BC. She went on to be quite successful. *Ku-Baba* founded the city of *Kish*, northeast of *Babylon*. She became sovereign of the city, and founded the *Dynasty of Kish*. Not too shabby for a brewer, regardless of sex.

Ale

Ale as it is known today, evolved into its present form from ancient beginnings. There is evidence that ale was first a form of low-alcohol mead, perhaps no stronger than 4% ABV.

The Anglo-Saxon word *ealu* and the Norse word *öl*, are early forms of the word "ale", but they are related to the ancient Germanic word *alu*. *Alu* however, refers to mead. How then did an ancient drink made from honey end up as a beverage made from malt & hops?

Ancient honey production was very crude when compared to modern bee keeping. The gathering of the honey often involved the destruction of the hive, either by the outright killing of the bees, or by a failure to leave sufficient honey within the hive to sustain it through the autumn and winter. As the population of Northern Europe increased the honey production it seems could not keep pace. More water was probably added to mead to stretch the supply, thus lowering its alcoholic content, and eventually changing the character of the drink.

A distinction might then have been made between the stronger, and more difficult to make "mead", and the less potent but more plentiful "ale". Eventually, this thinning of the mead into ale probably went as far as possible, and something had to augment the ingredients in the beverage. The brewers would have been forced to use what was at hand, and that was the local grain, possibly after it had been made into bread. So, first oats and then barley were used.

European Beginnings

It is possible that Northern Europeans discovered mashing and brewing independent from Mediterranean cultures. The Roman historian Pliny-the-Elder (23-79 AD) wrote about a grain drink made by the Gauls (their lands would later become France & Germany). Pliny wrote,

"The nations of the west also have their own intoxicant, made from grain soaked in water; there are a number of ways of making it in the various provinces of Gaul [France & Germany] and Spain and under different names, although the principal is the same."

This drink he called *cerevisia*, and probably derived its name from the goddess of the harvest, *Ceres*. Pliny uses the term "soaked" not "boiled" when describing the drink. He also fails to mention the use of bread, which may mean the Gauls had stumbled onto an early grain mashing technique, unknown to the Romans.

The Gauls are also the first people recorded as having aged their beverages in wooden casks (which they invented). They are also known to have flavored the drinks with herbs, and Julius Caesar is reported to prefer *cerevisia* to wine.

Another Roman historian, Pliny (c. 61-112 AD), was the son of Pliny-the-Elder. Pliny traveled farther than his father, to the northern edges of the empire, and visited what would later be known as the British Isles. He wrote about the use of grain in alcoholic beverages in Britain.

Tacitus, another Roman historian, wrote about the ancient Germans and a fermented drink. This was known as *bior* when it was made from barley, and known as *alö* when made from wheat and honey. It should be noted how similar the word *bior* is to the word *beer*, and *alö* is similar to *alu* and contained honey as an ingredient. Tacitus wrote,

"The liquor commonly drunk is prepared from barley or wheat, which being fermented, is then brought to resemble somewhat wine."

Whether the grain was malted or mashed, the alcoholic content of the drink is unknown. The strength of beverages in Western Europe could be high as Pliny-the-Elder also wrote,

"..., and in no part of the world is drunkenness ever out of action, in fact they actually quaff their liquors of this kind [grain based] neat and do not temper their strength by diluting them [with water], as is done with wine."

So, the ancient Germans had a fermented grain beverage in the first century AD, the Gauls had a drink which contained herbs and was aged in wooden casks, and the Babylonians had a grain drink twenty-four centuries earlier. Thus the use of grain in brewing was widespread.

The question remains, is modern ale the offspring of mead, which evolved into an all grain beverage, or was it created independently from mead?

One Answer

The answer is probably both. The peoples of ancient Europe did not live in closed societies. Trade took place as well as raids and conquests. Add to this the ability to grow grain, and its availability for brewing, against the need for grain as a source of food, and the picture becomes clearer.

As one travels north in the ancient world from the Mediterranean Sea, the crop yield becomes smaller. Colder temperatures and harsher seasonal changes lessen growing seasons and lower the crop yield. Eventually, the crops are only sufficient to sustain the population, requiring the use of something else to make beverages. Honey becomes the main ingredient. This may be why Pliny writes of the Germans having a grain beverage, while the Norse myths and legends from the more northern Scandinavian regions only speak of mead.

As the Romans moved north over the continent, better farming technology went with them, and better crop yields followed. The population increased due to the availability of food, and the honey production could not keep pace. As grain production increased further, wheat, oats, and barley began to replace the honey in beverages. Eventually, the ancestor beverage of "ale" had appeared. At least that's

one explanation. Unfortunately, ale's direct ancestor remains unknown.

Alewives

Let's jump ahead in history a bit. Women on the European continent had for centuries been brewing for their households. This art in turn led to one of the first "respectable" professions in Europe for women. This first appeared in the early Middle Ages as the *alewife*. Two famous alewives were Mother Louise (15th century) and Elynoure Rummyng (16th century). Alewives differed from the beer-sellers of Babylon in that they usually did not own the establishments where they worked, but were often hired by a business owner.

They were hired because in most of Medieval Europe women could not own property. While women weren't allowed to own land, Alewives were allowed to brew ale, and did so for many commercial and religious institutions. Taverns and inns usually brewed their own ale, and some became famous for their individual styles. Whether or not the alewife that made the brew was given credit was another matter.

Some monasteries hired alewives to help in their beer brewing. Although many monasteries are the homes of legendary beer styles today, it appears that some monks in the Middle Ages did not have brewing skills on par with those of an alewife. The skill of women brewers continued on through the Renaissance and into the colonial era.

This type of brewing is probably best described as *publican brewing*; on-site brewing for sale to the public, or consumption by a household. This was very similar in many cases to the modern brewpub, but without the science. Production was on a much smaller scale than commercial brewers of the eighteenth and nineteenth centuries, which would become the modern breweries of today.

In the 18th century Lorenz Crell demonstrated that the skills of women home-brewers were better than men involved in commercial breweries when he wrote,

"Every rural brewer, every publican in a village pub, every tenant farmer's labourer wants to understand the art [of brewing]. Educated men gape at the insuperable difficulties the common brewer faces while old women are able to make good beer with such ease, for even the number of brewers who commend themselves is most limited."

Such a profession was the exception rather than the rule in early America. With wages being very low for women in the eighteenth century (if the women were allowed to work for pay), it was often better for a woman to remain at home, and bake bread and brew beer for the household. The ingredients were far cheaper than buying the finished items outside the home, and often involved ingredients found wild or home-grown.

The Gruit

It is not known exactly when Europeans added herbs to ale for flavor. As the Middle Ages neared their end and the Renaissance began, the *gruit* or *grout* was the term used to describe the herbs and spices added to the brew. This could be added to flavor the drink, for medicinal value, as a preservative, or to cover the bad flavor of a spoiled brew.

The ingredients of a gruit differed from brewer to brewer. As certain locations became famous for the flavor of their ale, the ingredients of the gruit and their ratios became secret, as in modern formulas for liqueurs or modern soft-drinks.

Most brewers used the herb *ground ivy* as the foundation for their gruit. Ground ivy has the Latin name of *Glechoma hederacea*, and is also known by the names of *alehoof* and *creeping jenny*. Ground ivy is bitter and aromatic, and it was the most commonly used herb prior to

the introduction of hops. The herb also has some preservative qualities. It should not be confused with *English ivy*, which is the ivy found growing on old buildings. English ivy is poisonous.

Other herbs used in the gruit were, *alecost*, *bog myrtle*, *buckbean*, *carduus*, *comfrey*, *coriander*, *elecampagne*, *eyebright*, *horehound* (called "mountain hops" in Germany), *marjoram*, *mugwort*, *pennyroyal*, *sage*, *woodruff* (famous as an addition to May wine), *wood sage*, and *yarrow*. This is by no means all of the herbs used in gruits, and the herbs could be used alone or in combinations.

First Use

The earliest record of deliberate hop cultivation in Europe was at the Abbey of St. Denis in 768 AD. The hop garden, called a *humlonaria*, was a gift from the ruler of the Franks, Pepin le Bref. Hops were also cultivated at the Abbey of St. Germain-Des-Pres, and at the Abbey of Corvey-sur-le-Wesser in the ninth century.

The Bishopric of Freising (located in Bavaria) has records from the middle of the ninth century that mention hop gardens. By the year 820, hops and brewing were part of every monastery. Hops were so highly valued that they could be used in lieu of hard currency to pay rent. By 840 the Hallertau region of Germany was producing hops, and continues to do so today.

Some sources credit St. Hildegarde with the first use of hops in beer in Europe. St. Hildegarde is given this credit because she wrote about hop usage two centuries after hops cultivation is documented in monasteries. It would be silly to believe the monks had hops for two hundred years and never used it in their beer, so the credit given to St. Hildegarde may be merely a myth. One thing is certain, whether one agrees with The Catholic Church or not, modern beer owes its ancestry to King Pepin and Catholic monks.

The Grain

It seems the most commonly brewed grain used with the gruit in the Medieval Europe was not barley, it was oats. This was simply because oats were the most plentiful. Oats are heavy with starch, and mashing or malting must take place to convert the starch to sugar for fermentation. The oats might also have been first made into bread, but none of the sources used for this book show the use of bread in any of the original recipes. Mashing requires less technology than malting, so mashing was probably the technique known in Northern and Western Europe at that time.

If mashing was used, there were no means available to measure the brews, so the potency is unknown. The hydrometer and the thermometer were not readily available until many centuries after all grain brews appeared.

Monopoly

The monks controlled the use of gruits because they controlled the growing of the herbal ingredients. This became big business. In the twelfth and thirteenth centuries, the trade in herbs for gruits gradually moved into the hands of lay people. As business grew, corporation-like associations known as *guilds* were formed around many products, including the gruit trade.

In 1381 Frederick the Archbishop of Cologne issued a decree giving the local herb-guild a monopoly stating,

"All [clergy, civilians, military, and brewers] to buy their gruit in the Episcopal gruit-houses. Importation of hopped beer is forbidden."

Medieval Britain

Britain is a separate area of study. Its separation from the mainland of Europe caused it to develop both in culture and in brewing along differing paths. Britain was also the dominant culture of the American Colonies, and

British traditions in brewing often outweighed mainland European traditions in early American brewing.

One early brewer regulation was made in Britain in 1375, and required the *ale-stake* not to exceed seven feet in length. Ale-stakes had been part of British culture before the Norman invasion. A pole or a branch would be placed outside a tavern or an alehouse to show fresh ale was for sale. A piece of ivy hung from the pole indicated that wine and/or mead was also available.

Rural life in Medieval England revolved around the local church just as in Continental Europe. Ale was often served at church gatherings, and later became part of the terminology of the period. When the reformation came, the doctrine of the church changed to Protestant, but traditions among the common folk remained, and continued to focus the community's activities around the local parish.

The feast known as *Lambale* meant an annual event where the sheep were sheared for their wool, and ale was served. There was also the *Leetale*, *Whitsunale*, and *Clerkale*. All of which were events where specific community chores were accomplished, and ale was also served. (Perhaps modern churches would see greater attendance if beer was served?) In fact the term "bridal" comes from *bride-ale*, referring to the wedding feast.

The Patron Saint of Brewers

The Catholic Church also provided a patron saint for brewers. *Saint Arnou*, was born in 580, in the Chateau of Lay-Saint-Christophe, in the French diocese of Toul. In addition to later becoming a saint, Arnou was the grandfather of Charlemagne.

Arnou became bishop of Merz in 612, and later died in a monastery in 640. In 641 the people of Merz requested his body be moved to a place of honor in the town. While moving the body the bearers became fatigued, and stopped to refresh themselves. Only one mug of beer was available, but it never went dry and all were refreshed. Such a miracle is

minor by modern standards, but coupled with being the grandfather of the emperor, it was sufficient to make the man a saint. St. Arnou is also referred to as *St. Arnould*, *St. Arnoldus*, and *St. Arnou le Lorrain*.

Ale was so intertwined in the culture, that churches carried inscriptions referring to the beverage. At Sygate, in Norfolk is an inscription that reads,

*"God speed the plough
and give us good ale enow...,
Be merry and glade,
with good ale this work was made"*

A church in Essex bears an inscription dating from 1480 that reads,

*"This cost is the bachelrs made by ales thesn be ther
med."*

Unfortunately, the ale of the Medieval period did not survive.

Hops & Britain

Economics and availability probably pushed the use of hops just as it may have in the use of grains over honey. Hops were more potent than most other herbs, so less could be used to flavor the brew. Hops were also a good preservative, allowing longer storage or shipping over greater distances. As costs and spoilage were reduced, profits increased.

An additional aid to the use of hops may have been one of the first examples of lobbying. Jean Sans Peur, the Duke of Burgundy, founded the *Ordre du Houblon* in 1409 to encourage the use of hops in beer making, and to honor those who used hops in brewing. The use of hops spread, and eventually "jumped the channel" to England.

In England the old-ale brewers held onto their traditions, and objected to the addition of any flavorings. In 1483 the ale brewers petitioned the Lord Mayor of London to forbid the addition to ale of any,
"..., hops, herbs or any other like thing, but only licor, malte and yeste."

The petition asks for a prohibition of both hops and herbs being added to the ale. This would seem to indicate that British tradition began without any herbs added to the brew. This regulation predated the German beer-purity law, the *Deutsche Reinheitsgebot* decreed by William VI, the Elector of Bavaria, in 1516. The English petition mentioned yeast, while the later German law did not. The petition to the Lord Mayor of London may have been the result of more than the defense of tradition.

The German law was to prevent dishonest brewers from adding ingredients to the brew intended to increase thirst, increase potency, or to cover a spoiled beverage. In theory the quality and purity were insured. The London petition was probably designed to do the same. In any case, such laws were among the first ever consumer-protection laws on record. New laws required enforcement, and the *ale-conner* appeared.

The Ale-Conner & Bierkiesser

The ale-conner was an English inspector of sorts for the beverages being produced. He wore leather breeches and tested ale by pouring it on a smooth, wooden bench. He would then sit in the puddle for about a half-hour, and if the breeches stuck to the bench when he stood up, the ale was sugary and imperfect. One famous ale-conner was William Shakespeare's father, who was an ale-conner in 1557 in Stratford-on-Avon, England.

Purity laws in Germany led to the creation of the *Bierkiesser*, established in Alsace in 1723. *Bierkiesser* duties were a bit different than the ale-conner. They **tasted**

newly tapped beer to ensure the quality of the beer was up to legal standards. This was probably a better method than the "butt-on-the-bench" technique used by the English in the 16th century. (It also sounds like a great job.)

Unhopped Ale's Demise

In spite of legislation, unhopped ale was disappearing, both in Britain and in continental Europe. *Cerviose* was the name for the French grain beverage without hops. In the fourteenth century it was distinguished from *biere*, the same beverage with hops. *Biere* replaced the earlier beverage in less than a century. Although the English ale-brewers fought hard for their traditions, the original beverage had disappeared in England by the sixteenth century.

While the ale brewers were fighting the use of hops in London, in Scotland the absence of hops continued. The French physician, Jerome Cardan, traveled to Scotland in 1552 to visit Archbishop Hamilton. His journal mentions *hala*, the ale of the region. Cardan described it as,

"...,sweet white-mist..., it differs from beer in the omission of hops."

It is only supposed that Cardan was describing a grain beverage. It is possible he was actually served a non-spiced form of mead, or a beverage made from honey and grain. No information has been found to suggest Cardan knew the difference between mead and a grain beverage. However, without further information *hala* may be recreated as an all-grain brew. The ancient form of ale would soon disappear from every part of Britain except for a few quiet, isolated areas.

Beer

Historically for Britain, beer was a fermented malt-beverage flavored with hops. Beer arrived in England in the