

Beer in Published and Unpublished Texts from the Third Millennium B.C

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Introduction

Alcoholic beverages were discovered in prehistoric times. The cuneiform texts demonstrated that there were many beers in Mesopotamia, beer of all kinds, which were considered to be refreshing and favorite drinks of the ancient Iraqis.

Alcoholic beverages were produced, perhaps by chance, and their industry dates back to the Neolithic era. The beer industry was associated with the pottery industry, and it is believed that the large jars with arched mouths that were found in different regions were specific to the beer industry. Therefore, the discovery of beer was made in Mesopotamia long before the invention of writing.

The Sumerians are familiar with the beverage industry. The first sign of beverage is contained in the cuneiform texts and its pictorial stage in the form of a jar with grains of barley in it, and another sign, which looks like a jar with an extension below, undoubtedly leads to another yard in which the brewed barley juice is filtered.

Early on, the population of Mesopotamia inferred this industry through drinking scenes depicted on seals and carvings.

The cuneiform texts referred to a great deal of information on beer (KAŠ), including texts that date back to the period 3200-3000 BC. Beer was not just a rural agricultural product of the primitive Sumerian settlements but was one of the products subject to the central economy of the large Sumerian cities. As information was available about beer in three types of cuneiform sources, the first of which is through administrative texts, texts of myths and epics, legal articles that mentioned beer, as well as administrative and economic texts that specifically mentioned the production and distribution of beer. It contains detailed records of the raw materials required to produce beer, the quantities of beer produced, and texts that represent commercial and economic transactions such as beer delivery texts.

The oldest reference to the term KAŠ is in a text dating back to Lukal Nada in the first year of his reign. We read in the text various materials about quantities of wheat and beer delivered as offerings to the god Mes-Ando and the high priest Dodo from one of the storehouses.

A text dating back to the ancient Sumerian era (2500 - 2430 BC) from the city of Adab, as an economic text mentioned quantities of beer, bread, and semolina as wages for the workers of the brewery (É-BAPPER). From the Akkadian period (2340-2200 AD), cuneiform economic texts containing various materials, including beer, were received from several cities, including (Ur - Nefer - Ashnona - Uma and others). Also, cuneiform texts included distribution lists of beer and its types and wine dated by month and day from the city of Akkad.

Beer was widely used in modern Sumerian texts (2112-2004 CE) as offerings and ordinary supplies for worldly purposes from the twenty-fifth year of the reign of King Shulki until the sixth year of the reign of King Abi Sin, among several major cities that belong to beer drinkers, and it is often mentioned in the texts with bread.

Second: The Name

The cuneiform texts provided us with many names and descriptions of beer, and it came in the Sumerian language with the syllable, KAŠ, and Akkadian sikaru, meaning beer or alcoholic drink, and may refer to any intoxicating liquid usually produced from dates or other fruits.

Several cuneiform texts mentioned beer of all kinds, types, prices, as well as the raw materials that go into its manufacture, and the strength of its impact.

In addition to beer made from barley, it is also made from wheat or a mixture of wheat and barley. Nineteen varieties of beer were reportedly known to the Sumerians. Eight of them are prepared from barley alone, which is of a good variety, and the other eight are prepared from wheat and prepared by adding a certain percentage of barley, while the remaining types are a mixture of wheat and barley and other scented materials.

Third: the beer industry

Since ancient times, man has been developing the processes of the beverage industry. The inhabitants of Mesopotamia have known the brewed beverage industry in the Neolithic era and were guided to prepare and obtain various kinds of beer.

The beer industry in the Mesopotamian civilization has been associated with the development of grain cultivation (wheat and barley), which occurred ten thousand years ago. About 40% of grain

production was used in the manufacture of beer.

The beautiful art scenes that demonstrate the process of making beer and its different methods of drinking were found engraved on the cylinder seals. Drinks, which may have contained a large amount of sediment, were drunk in the Sumerian period with special drinking tubes whose ends were perforated with small holes to form what looked like a filter. The ancient Iraqis drank beer through a straw or tube to prevent the husks (seed husks) resulting from steeping barley with water from reaching the drinker's mouth.

The beer industry goes through several stages, the first of which is:

1. Fermentation of grains/soaking of grains: The process of soaking grains is known in Sumerian NUMUN4-E MA2 and Akkadian baqilu or buqlu. Beer is one of the common drinks, and barley is often its raw material. Beer preparation is usually made by fermenting quantities of barley grains in water in a warm place inside beer jars with a curved and hanging neck that prevents the entry of oxygen and left for a certain period, where the contents of the barley kernels are transformed from starches to barley sugar, which gives the distinctive taste of beer.

Yeast preparation was very important. The reason for preferring barley grains in the manufacture of yeast is because it produces a large number of decomposition enzymes, as well as proteolytic enzymes and decomposing gums, which produce additional substances that improve the nature, smell, and flavor of yeast grains.

This process is represented in drawing a beer sign, in which a jar appears and at the bottom of it an extension in the form of a tube that undoubtedly leads to another container in which the fermented barley juice filters. One of the months in the calendar of the city of Lagash from the era of Ur III, which is the fifth month, is mentioned as the month in which soaked grains are eaten ITI- NUMUN4-KU2.

The outer covering of the seed helps prevent damage during harvest and strengthens the structure of the soaked bean. It also keeps the embryo inside the barley seed from breaking. Therefore, it helps it in the germination process, and it is believed that some grain husks give flavor and taste to the components of the yeast. At the beginning of fermentation, preliminary germination of the barley seed occurs, after which the process of converting the contents of the barley from starchy to sugary substances begins. Malt sugar is an important factor in the beer's final taste (sweet taste).

The type of fermentation has a direct relationship with the length of storage for different beverages, as well as with the fermentation temperature. If, after soaking, the beer is heated for a short time at about 50 degrees Celsius, the rapid transformation of starch and then rapid fermentation at a low temperature is more guaranteed.

2. Drying the grains: this process is known in the Akkadian as šetu or pu'pa. After soaking, the grains are dried. Drying means stopping the germination process, and it is done in two ways, the first is by spreading the grains under the sun until they dry, and the water evaporates, and the second is to put the grains in ovens.

3. Crushing and sieving grains: After the grains are dried and crushed, the crushing process is called (GAZ in Sumerian) and (Hasalu in Akkadian) or using mills mentioned by some as isbukannu or nappu or grind using a mortar, and sieved to separate the seeds then kept in containers or bags until used.

4. Adding spices and flavorings: Some kinds of spices were added to the grains and some kinds of flavoring herbs.

The cuneiform texts gave us full details of the stages of the industry. Among some details, the added materials that may have a catalytic role in fermentation reactions as well as the duration of the fermented solution to obtain different degrees of products with different qualities.

There are several recipes indicating the addition of several specific plants to give a beer smell and a special taste.

The use of white, red, and brown barley, as well as emmer wheat and its mixture (with or without husks), allows the brewer to prepare beer of different colors and flavors, as the extract obtained in the fermentation bowl contains a different dye and other compounds coming from the husks.

Crushed grains are treated in two ways:

a. Beer bread: It is bread-like pieces called beer bread. It is called in Sumerian (BAPPIR) and Akkadian bappiru, it works in the form of tablets, and various kinds of flavorings, herbs, and spices

are added to it to give a special taste. Then it is baked in the oven, and after removing the bread from the oven, it is spread on reed mats to cool, because cooling is required to maintain temperatures during formation. The mats on which the bread is placed have certain specifications.

b. Fermentation of beer bread: The process is called *Nadu* or *luhumu*. The beer bread is crushed while it is hot as soon as it is taken out of the oven, then soaked and salt is added. The marinade is mixed in a large container for fermentation. After it has brewed well, the solution is filtered, and it is packed in large jars, the mouth of which is well tightened to prevent the mixture from fermenting because this leads to making the drink sour.

Leaving the drink for a long period at variable temperatures determines the quality of the drink and its effect. In the fermentation process, the beer is mixed using a special mixer and then transferred to a container for filtering and sedimentation of waste. The fermentation process lasts about 3-4 days, and then the container is covered with mats or a piece of cloth at night to maintain the temperature as much as possible. From the filter container, the filtered liquid is transferred to clay pots of 2-5 liters and larger than that when stored.

Beer is made from barley, it is also made from wheat or a mixture of wheat and barley. It should be noted that brewed and crushed barley with spices was known as a mixture that was placed in special fermentation jars, then the brewed liquid was transported and purified in special containers in which all the remaining impurities were deposited, and finally, the pure beer was transported to containers prepared for drinking.

The techniques used in the brewing of beer were distinguished, which are similar to those found in Tell Bazi. Vessels were used to store or treat old beer. The excavation mission found a large number of pits containing jars in the form of barrels buried underground, with a capacity of 200 liters, in several houses from this site. The inside of these pits was coated with internal ceramics, as the beer brewed. The process of burying these containers in the ground will result in a weak temperature that helps them in the fermentation process. These barrels were accompanied by small containers with holes in their bottom, and the capacity of these containers was 100 liters.

The beer industry was once dominated by royal family officials and consisted of families belonging to the palace or the temple. The cuneiform sources and texts indicated that some good types were taken care of and were intended for the clergy of the temples and were given to visitors of the temple by official and private figures, as well as religious sessions during which beer, wine, milk, and fruit juice were served.

Beer made is accompanied by the recitation of the poetic hymn that praises the goddess of beer *Nankasi* and describes the beer as the inspiration for poetry and the emotions of the individual. Besides, chanting various songs related to drinking. During the translation of the hymn addressed to the beer goddess, *Nankasi*, the stages of making beer are described, in which there is an enumeration of the most important activities of the goddess *Nankasi*, as well as mentioning some of the gods who were associated with its manufacture, such as the goddess *Ninkharsak* that was mentioned in the hymn.

(You are the one who eats the dough (beer dough) with a big shovel, mixes beer in a pit with sweet flavorings, You who bake the dough in a big oven, You arrange heaps of husks, You pour water on the dusty dough, you soak the grain prepared for beer in a jar, you are the *nankasi* who spreads the cooked on the reeds, you carry with both hands its sweet herb, you brewed it over honey and wine, in the fermentation vessel it makes a pleasant sound).

Several gauges of beer were used in ancient Iraq, with a measure of (PI) *panu*, which is approximately one-fifth of the *GUR*, i.e. equal to 60 liters according to the measures of the current capacity. The (PI) scale was used in the ancient Sumerian era in the city of *Warka* in particular, where beer was measured in this era for *BÁN 36 sila*, equivalent to 36 liters, and in the Akkadian era, the *DUG* scale was used in Sumerian and *karapu-karpatu* in Akkadian to measure beer, which is approximately 20 liters at present. In the modern Sumerian era, it was used for grain.

It was mentioned in cuneiform texts dating back to the Akkadian period that a measure of *parisu*, which is equal to half a *kore*, or approximately 150 *sila*, was used to measure beer.

1 Pa Gešten

There was a special container for measuring beer in Sumerian, *DUG (MÚD) huburu* is a *Khabur*, meaning beer container. One of the units in which beer was measured, which appeared in the Akkadian era, is the *ku-li coli*, as it was used only in this era, and it is equal to 0.5-1.2 liters according

to the current measurements.

In the Akkadian era, the PI scale for beer changed, and it became equal to 60 sila, or 60 liters at present, as well as in the modern Sumerian era.

Beer was also measured with the SA2-DU11 scale as a measure of the weight of beer that appeared in the era of Ur III in one of the texts from the city of Kresu (Tulu). It belongs to King Lukal Nada and is undated. It includes quantities of different materials of bread and beer.

Furthermore, the NINDA scale was used in the modern Babylonian era to measure beer, as it is approximately equal to 0.1 sila, where this scale is equal to the kasu scale since both are equal to the same amount.

The brewer

A person who specializes in making and preparing beer. The beginning of the emergence of this profession is not known, but the oldest reference to it dates back to the third millennium BC, that is the ancient Sumerian era.

The brewery has many names, LÚ.KAŠ in Sumerian and bappir in Akkadian. Or LÚ.SIM and sometimes you write LÚ.GAR or LÚ.BABIR. The word LÚ.DUMGAL and the Akkadian sirasu also appeared. The term serving beer came in Sumerian LÚ.KAŠ.DE and Akkadian kasde. As for the Sumerian term KAŠ.A.GUB.The BA is for the person who works in its production and brewing. As for the name of the beer-working woman, it appears in the Sumerian form SAL.GAR as well as SAL.SIM and in Akkadian sirasitu, and the term KAŠ.SUR for the person who brews and clears wine.

Women used to make beers in bars and sell them, and they continued to do so until the modern Babylonian era. In this era, rations of barley and dates were distributed from the temples of the gods to the people responsible for brewing beer and making other kinds of wines (perhaps only related to beer or wines specially prepared for the temples of the gods). These brewers may take the oath before they begin beer preparation in the temples of the gods. Among the temples in which the oath was made is the temple of the god Enlil (É.KUR), i.e., a kur in the city of Nefer.

The brewer's profession involved both men and women and was not limited to either sex, whether it was in the process of making or serving. The brewer has many tools that it uses for industry, including the sieve that he uses to separate the crushed grains from the husks.

Both men and women brewers practiced their businesses in different places. This profession was practiced in public homes, and there were places designated in palaces and temples for brewers, considering beer one of the important drinks served with meals and at leisure as well.

From one of the clay figures found in the temple of Nabu in Kalhu (Nimrud) information about the brewer includes that (the wife got the beer for one portion, the brewer for one pitcher). There is information in the text about the brewer called su-nusi-su, who was the brewer of the temple of the god Nabu, it was described in the text that his beer contained dates, dried things, and raisins. As for the winemaker, it is called in Sumerian LÚ.SUR.GEŠTIN and in Akkadian sahit karani.

The wine maker performs several works throughout the process of preparing wine. He used some fruits as the main raw materials in his work, such as grapes, dates, and pomegranate.

The term rab Karani, which means (the professional specialist) for the manufacture and preparation of wine, and another title is known as rab shaqi, which means the ability, the apprentice, or the skilled worker in this craft.

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