

ARCHAEOLOGY

Beer-Making 8,000 Years Ago

Exhaustive Researches Carried on by a German Archaeologist Show That Bread and Beer Were Twin Staples of Life in Egypt and Babylonia

By **FRANK THONE**

THE OLDEST inscribed monument on earth is a beer sign.

It is treasured now in the Louvre, in Paris. But when it was carved by some sculptor in ancient Babylonia, long before the flood, it was a solemn memorial to the goddess Nin-Harra. It shows supplicating priests, workmen with pestles for bruising grain, and offerings of meat and beer.

The people were offering to their divinity the best they had, in the hope that she would graciously smile on their fields and insure for the coming season plenty of bread—and also what appears to have been just as important to the dwellers in Babylonia, plenty of beer.

For the most ancient of civilized peoples whose history we know at all, the Babylonians and the Egyptians, were great beer drinkers. When they drew their day's pay, in beer and bread, they got as much of the one as they did of the other. If there was anything extra they took it in beer. Differences in social or political rank were measured in quantity and quality of beer allowed, and the gods got the biggest bottles of the best brew.

The great importance of beer in the high cultures of antiquity has been studied exhaustively and written up in a recent scientific monograph. The author is, most appropriately, a German, Dr. E. Huber of Berlin.

From all imaginable sources Dr. Huber has drawn his material. He has studied the inscribed bricks of Babylonia, the carved stones of Egypt. He has pored over half-obliterated columns of hieroglyphics on papyri from Pharaonic tombs, and searched early Greek poems and histories for references to Hellenic traffic with the "wise land" of the Nile. He has fondled ancient beer-jugs and brewers' apparatus of all kinds in the museums. He has gathered up all the heeltaps of information about

Babylonian and Egyptian beer that have been left by the thirsty centuries.

Brewing is as ancient an art as baking, he finds. The two great uses of grain go back as far as civilization goes, and disappear into the mist of the ages before the dawn of records in writing. To the beer-offering monument to the goddess Nin-Harra he assigns a date of 6000 to 7000 B. C., which is a greater antiquity than many archaeologists will admit to be definitely dateable. But whatever its age, it certainly does definitely indicate the twinship of beer and bread away back into neolithic time.

Bread Used in Beer-Making

Dr. Huber believes that civilization arose first in the Euphrates-Tigris valley, and that colonists went from there into Egypt in very early days, taking with them their arts and culture, including the knowledge of brewing.

Certainly there is a great resemblance between the fundamentals not only of the brewing art in the two countries but of their whole agricultural stock-in-trade. The earliest grains cultivated in both countries were barley and emmer, the latter a primitive kind of wheat long since relegated to a minor role among the world's cereal crops. Both knew the date palm but neither knew the vine—and wine—until comparatively late.

Throughout their long history, brewers in both lands made beer in much the same way. The similarity between their methods is all the better argument for a common origin, because of one very peculiar step in the process employed by both.

Babylonians and Egyptians alike used specially baked bread as part of the brewers' mash, instead of making the beer directly from malted grain, as at present. The fellahin, or peasants, of modern Egypt still make a mild fermented drink in the same way. It is a direct descendant of their remote ancestors' "heket," with a lineage of six or seven thousand years.

Both Babylonians and Egyptians used



Beer for Babylon's Gods

their two staple cereals in the manufacture of beer, and both made barley the foundation-grain, with admixtures of emmer in varying proportions. The grains were used in three ways: malted, ground without malting, and baked into the "brewers' loaves" already mentioned.

Color and strength of the beer varieties were carried through a very considerable range by varying the proportions of the ingredients, by using lighter or darker strains of grains, by baking the brewers' bread light or making it more crusty and brown, by mixing two different brews together, and in a number of other ways. Both Babylonians and Egyptians often added honey or dates, which would of course increase the alcoholic content considerably.

In Egypt, brewing remained largely a household art throughout the long history of the country, but in Babylonia it passed into the hands of a specialized industrial class at a very early date and home brewing was practiced very little. There were professional brewers there in 5000 B. C., Dr. Huber states.

Among the Babylonians, the brewers were naturally also the innkeepers. Most of them were women. Appropriately enough, therefore, we find the oldest known brewing recipe in the temple of a goddess, Ba-u of Lagash.

But even with the liquor traffic thus nearly monopolized by the gentler sex, there seem to have been the usual difficulties in its regulation. When Hammurabi, the great king of the Semitic folk who conquered the first civiliziers, the Sumerians, undertook about 2500 B. C., to codify all existing laws, he provided that any innkeeper who demanded exorbitant prices for beer, or sold beer of inferior quality, "shall be put into water."

Watery Punishment for Bad Beer

That meant "shall be thrown into the canal." Canals were everywhere in that irrigated country, and the enforcers of the law found it convenient to punish a whole series of crimes and misdemeanors by ducking or drowning. But in this particular case the punishment was made

to fit the crime with a most Gilbert-and-Sullivan-esque appropriateness.

This, of course, applied only to private enterprise, usually on a small scale. But the royal farms and the temple estates also had their breweries to provide beer for workmen, officials and priests, for beer and bread were the staples of life of all classes. Records of estate management, inscribed on clay tables, tell of the share of the grain harvest to be sent to the "brew house," and also of the allotments of beer to the various classes of workmen and officials.

An ordinary Babylonian farm hand got the smallest lot and the thinnest kind: one quart of watered beer a day. Laborers at harder work, such as carpenters, masons and the operators of the innumerable irrigation wheels, got the same quantity, but of the full-strength barley beer. Petty officials got two quarts. College graduates, who had learned the difficult art of writing, got three; thus did learning receive its appropriate reward.

Higher officials and generals in the army got five quarts each day. This rising scale of liquid perquisites of office makes it easier to understand the invariable rotundity of the more important personages pictured on all Mesopotamian monuments. In those old happy, far-off days the phrase "a fat job" really meant something.

It is interesting to note, too, that the ladies lagged no whit behind the men-folks in their consumption of choice brew. The "palace ladies"—members of the king's harem—got just as big an allowance as did the high-brow job holders, three quarts a day each. Evi-



STATUETTE OF EGYPTIAN BREWER
Placed in ancient gentleman's tomb, to insure a beverage supply in the after-world; the objects on the right are beer-bottles, capped with clay cones.



THE CUSTOM OF DRINKING THROUGH STRAWS

Apparently originated in Babylonia, where bent reeds were used as drinking tubes at convivial beer parties.

dently the Orientals liked 'em plump then just as they do now.

Egyptian ladies got their beer, too. One of Rameses' records shows the delivery, to the priestesses of a certain temple, of 466,308 jugs of beer.

The Ladies Liked it Sweet

This beer for the ladies was a special variety, with a large percentage of emmer in the mash; it was probably quite sweet. Even the "poor working goil" was favored; in times of shortage beer was provided for working women when there was none for their husbands and brothers.

The gods must have been thirsty spirits, for they always got just as much beer as they did bread. If a man brought an offering of 10 quarts of bread (or 10 quarts of grain) to the temple, he matched it with 10 quarts of beer. If he brought only five quarts of beer, five quarts of bread went with it. This argues a similar proportion on the dinner-tables of mortals, for early peoples always tended to make gods after their own image.

Great feast-days must have been the occasions of real parties in the temples, for records of preparations for feasts have been found that list as many as six different varieties of beer among the supplies laid in. And the priests had to sample all of them. The gods were offended if they didn't.

In both Babylonia and Egypt there was a great variety of brews available. From records as far back as 4000 B. C. Dr. Huber has compiled a list of no less than 19 kinds of beer, and a list

from records 2000 years later is just as extensive.

The Egyptian "beer card" is about as long, but since brewing in Egypt was predominantly a home industry the Egyptian beers are less systematically classifiable. Dr. Huber's list includes only the "basic beers" made from barley and emmer; the sweetened and fortified varieties, with additions of dates, honey, etc., would probably extend it considerably.

Every separate variety had its name. The basic Babylonian term for beer was "bi." To that were added various qualifying words. The ordinary barley beer, such as workmen got, was "bi-se-bar." Thinned out with water, for farm hands, this became "bi-se-bar-us-sa." The very best black barley beer was "se-bar-bi-gug-dug-ga"—which sounds very much like something bubbling out of a jug.

In both Egypt and Babylonia the making of beer always remained a rather primitive and unscientific affair, although it did include the same fundamental steps still used, in a more scientific and sanitary way.

First the mash materials—bruised or ground grain, barley malt, and broken-up loaves of bread—were tramped up with water in a huge crockery vat. The mess was allowed to ferment, usually for only a day or so. Then the liquor was separated out with a sieve, and allowed to stand for a little while longer. In Egypt the brewers kneaded the doughy mash on the sieve while the beer was draining through.

Naturally, with arrangements as primitive as these, a lot of broken grain and

bits of brewers' bread came through the sieve and floated around on top of the beer. For this reason the ancient inhabitants of Mesopotamia invented the practice we still have, of drinking through a straw. They used bent pieces of hollow reed, about three feet long, which they stuck through the unpalatable stuff on top into the clear fluid beneath, and sucked with great relish.

Beer-drinking seems to have been a social exercise in Babylonia, for the inscriptions invariably show at least two of these drinking-reeds in every beer jug. And if people are shown in the act of drinking, almost always there are two of them on opposite sides of the jug, pulling away like Turks at a hookah. Evidently the man with the best pumping apparatus got the bigger share of the beer.

In Egypt tubes were used to some extent, but beer-drinking was more refined. There the beer was drawn off through tubes, but attendants took care of that part, siphoning it out of the storage jars into a large serving vessel. From this it was poured into rather shallow pottery goblets.

The addition of bitter herbs and aromatics of various kinds, corresponding to the modern use of hops, was known to the ancients. The Babylonians sometimes spiced their beer with cinnamon, which doesn't sound at all like a bad idea. Among the things used by the Egyptians was mandragora, a bitter root still listed in our pharmacopeias. This contains a strong narcotic principle, so that it is quite possible that Pharaoh's subjects got an extra kick out of the beer "spiked" with this drug.

Warnings Against Demon Beer

The effects of looking too long on the beer when it is brown were not unknown to the ancients. Babylonian records tell of "walking unsteadily, and seeing several things where there is but one."

One classic Egyptian homily, addressed to a young student, is positively lyric in its alarm:

"They tell me you have forsaken your books
You have given yourself over to pleasure
You go from party to party
Beer-smell every evening
Beer is causing people to avoid you."

The younger generation has evidently been going to the dogs for at least five thousand years.

Egyptians interpreted their foreign-derived word "heket" to mean "captivity of the heart," conceiving beer to contain a demon which seized the drinker's heart if he swallowed too much. They had many charms to be uttered before drinking, to keep this "demon beer" in check.

Egyptian tomb-inscriptions set forth pious wishes for welfare in the world to the west of the desert. Funeral bills of fare, though they gave the king rich feasts and provided the poor man with no more than bread and beans, democratically allowed both plenty of beer.

The usual formula calls for "a thousand of bread, a thousand beers." This is invariable in the earliest inscriptions. Later, when Egyptians traveled more and imported foreign goods, there were additions of wine, of cool water from the sources of the Nile, and sometimes the bereaved survivors also added a prayer for milk.

But the two things they never forgot were bread and beer.

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PSYCHOLOGY

Students Influenced by What "Everybody Thinks"

ONE out of three adults will change his opinion on controversial social or ethical matters to what he learns that other people think. But students in high school and college are even more suggestible. More than half of each of these groups were influenced by the group opinion.

These figures were obtained by C. H. Marple, working with Dr. Norman C. Meier at the University of Iowa and reported by them to the Midwestern Psychological Association. They asked 900 persons to express their opinions independently on the various topics, which included matters of general, social, economic, and ethical interest. Three groups were represented, including 300 high school seniors, 300 college seniors, and 300 representative adults.

After a lapse of one month, the same questions were given again. For 300, representing all three groups, the questions were in their original printed form. For another 300, the questions

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