

CHAPTER THREE

BAKING AND BREWING BEER IN THE ISRAELITE HOUSEHOLD: A STUDY OF WOMEN'S COOKING TECHNOLOGY¹

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Introduction

There has been interest of late in what archaeological data can reveal about ancient Israelite women and their contributions to the household economy. In several recent articles, C. L. Meyers suggests that women gained power in the ancient Israelite household and larger community through control of cooking tasks, specifically their ability to manipulate grain to make bread.² Baking in the ancient Near East and Egypt was closely connected to brewing, which was an offshoot of bread production. Beer was a dietary staple in this region consumed by men, women and

¹ This paper is an expansion of our presentation in the 2005 American Schools of Oriental Research Annual Meeting session "The World of Women: Gender and Archaeology," chaired by Beth Alpert Nakhai. We sincerely thank Beth for inviting us to contribute to this volume, and for organizing outstanding ASOR sessions that address issues still largely overlooked in our field.

² C. L. Meyers, "Having Their Space and Eating There Too: Bread Production and Female Power in Ancient Israelite Households," *Nashim: A Journal of Jewish Women's Studies and Gender Issues* 5 (2002): 14-44; idem, "Material Remains and Social Relations: Women's Culture in Agrarian Households of the Iron Age," in *Symbiosis, Symbolism, and the Power of the Past: Canaan, Ancient Israel, and Their Neighbors from the Late Bronze Age through Roman Palaestina* (eds. W. G. Dever and S. Gitin; Winona Lake, Ind: Eisenbrauns, 2003), 425-44; idem, "From Field Crops to Food: Attributing Gender and Meaning to Bread Production in Iron Age Israel," in *Archaeology of Difference: Gender, Ethnicity, Class and the "Other" in Antiquity: Studies in Honor of Eric M. Meyers* (AASOR 60 & 61; eds. D. R. Edwards and C. T. McCollough; Boston: ASOR, 2007), 67-84.

children of all social classes. However, biblical scholars and archaeologists have focused on wine, not beer³ because wine is associated with industry, trade, inheritance, ritual and status while beer is associated with the domestic sphere. Moreover, the remains of wine are more common than those concerning beer, because beer was typically produced for immediate consumption, and, unlike wine, it does not improve with age; in general, people traded wine and grain as opposed to beer and grapes.⁴

Overlooked until now is women's role in the production of beer in the Israelite household. In order to demonstrate women's control over brewing in Iron Age (ca. 1200-586 B.C.E.) Israel, this article first addresses the connection between women and beer production and consumption in the written and artistic records of the ancient Near East and Egypt. It then turns to the significance of beer goddesses in the region and suggests how women's control over beer production may have influenced the Israelite cult. The chapter then describes the methods used to produce ancient beer and emphasizes its close connection to bread production, while focusing on the archaeological correlates to brewing in Iron Age Israel. It also offers suggestions for identifying beer production activities with female spaces. Ultimately, it demonstrates that women were the primary producers of beer in the Israelite household, and suggests directions for future research into the identification of women's brewing activities in Iron Age households.

Women and Beer in the Ancient Near East and Egypt

Textual Record

A variety of texts connect women to beer production and consumption in the ancient Near East. In texts dating to the third and second millennia B.C.E. Mesopotamia, women are often noted as producers and providers of beer. For example, at the beginning of the *Epic of Gilgamesh*, the prostitute Shamhat, who was sent from the city of Uruk to civilize Enkidu, gives Enkidu bread and beer to mark his transition from the wild to the domestic.⁵ Later, the wise tavern keeper Siduri gives Gilgamesh good beer

³ M. M. Homan, "Beer, Barley, and *šēkār* in the Hebrew Bible," in *Le-David Maskil: A Birthday Tribute for David Noel Freedman* (eds. R. E. Friedman and W. H. C. Propp; Winona Lake, Ind.: Eisenbrauns, 2004), 27; idem, "Beer and Its Drinkers: An Ancient Near Eastern Love Story," *NEA* 67/2 (2004): 84-86.

⁴ e.g. Homer, *Odyssey*, 2.379-80.

⁵ Old Babylonian version, 2.3.6-25; *ANET*, 77.

and even better advice as he journeys to find the secret of immortality.⁶ In addition to the literary attestations, numerous economic texts indicate that women ran taverns. Brewing equipment was required for a woman to open a tavern, and such equipment was sometimes among the items given to women as part of their dowries.⁷ Interestingly, customers paid for their beer with raw grain, which the proprietor later turned into beer.

Hammurabi's eighteenth century B.C.E. law code regulated beer and documents the important role women played in beer distribution. It stipulated that female tavern keepers needed to price their beer fairly, and if not, they were to be thrown into the water (line 108). It also states that female taverns needed to police their establishments and turn in conspirators (line 109), and that "sisters of a god" (priestesses) could not open a tavern or enter one, lest they be burned to death (line 110).⁸ In Mesopotamia, taverns were associated with music, games, prostitutes and the goddess Ishtar.⁹

There are also Egyptian textual accounts of women brewing beer. In the *Destruction of Mankind*, further discussed below, the women of Heliopolis produced beer and dyed it red with ochre to trick the bloodthirsty Hathor-Sekhmet, who was sent by Ra to destroy humankind.¹⁰ The New Kingdom (ca. 1550-1069 B.C.E.) *Instructions of Ani* relates that women made bread and beer at home to feed their families: "[your mother] ... sent you to school and you were taught to write, [and] she kept watching over you daily, with bread and beer in her house."¹¹ Bureaucratic

⁶ Old Babylonian version, 10.2-3; *ibid.*, 90.

⁷ M. Stol, "Beer in Neo-Babylonian Times," in *Drinking in Ancient Societies: History and Culture of Drinks in the Ancient Near East* (ed. L. Milano; Padova: Sargon, 1994), 179-80.

⁸ J. B. Pritchard, ed., *The Ancient Near East: An Anthology of Texts and Pictures*, vol. 1 (Princeton: Princeton University Press, 1958), 170.

⁹ R. Harris, "Images of Women in the Gilgamesh Epic," in *Lingering over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran* (HSS 37; eds. T. Abusch, J. Huehnergard, and P. Steinkeller; Atlanta: Scholars Press, 1990), 219-30; P. Michalowski, "The Drinking Gods: Alcohol in Mesopotamian Ritual and Mythology," in *Drinking in Ancient Societies: History and Culture of Drinks in the Ancient Near East* (ed. L. Milano; Padova: Sargon, 1994), 27-44. There is a long tradition of women being beer providers. For example, note the 5th century C.E. Saint Brigid of Ireland, who gained fame by turning her bath water into beer to satisfy the thirst of a clergyman.

¹⁰ M. Lichtheim, *AEL 2: The New Kingdom*, 199.

¹¹ *Ibid.*, 141.

titles from literary sources and tomb scenes from the pharaonic period make reference to female as well as male millers and brewers.¹²

Unlike for Mesopotamia and Egypt, there is no historical text from ancient Syria-Palestine that links women to beer production. There is, however, some textual evidence for women drinking beer. For example, female *muhhūtu* prophets from eighteenth century B.C.E. Mari, like their male counterparts, appear to have consumed beer to induce ecstatic states and deliver messages to kings from a manifestation of the goddess Ishtar.¹³ There are also cases in the Hebrew Bible that accuse Israelite women of drunkenness. The best-known example is when Eli accused Hannah of being drunk at the Tabernacle in Shiloh (1 Sam 1: 12-14). Hannah retorted that she drank neither wine nor *šēkār*, best translated as “beer.”¹⁴ In Num 6: 1-4, Yahweh tells Moses that men or women who want to become Nazirites need to separate from wine and *šēkār*. This requirement suggests that there must have been quite a few women who typically did not abstain. Additionally, Deut 14: 26 suggests that beer be drunk at sacrificial meals, and Num 28: 7-10 prescribes the use of beer in Temple ritual.

Artistic Record

The artistic record linking women with beer production and consumption in Mesopotamia and Egypt is long. Sumerian seals depicting banqueting scenes, including one from “Queen” Puabi’s tomb at Ur (ca. 2600-2500 B.C.E.), show women in mixed groups or with other women drinking beer out of straws.¹⁵ The remains of three straws—one of reed covered in gold, one of copper encased in lapis lazuli, and one of gold with silver and lapis lazuli—were found in Puabi’s tomb, as well.¹⁶ Several early second millennium B.C.E. terracotta plaques show women drinking beer out of a straw while engaged in sexual intercourse. While it has been suggested that these represent tavern or brothel scenes, their original contexts are often unknown.¹⁷

¹² R. I. Curtis, *Ancient Food Technology* (Leiden: Brill, 2001), 105.

¹³ H. B. Huffmon, “Prophecy: Ancient Near Eastern Prophecy,” in *ABD*, vol. 5, 477-82.

¹⁴ Homan, “Beer, Barley and *šēkār* in the Hebrew Bible.”

¹⁵ M. T. Viviani, “The Role of Alcoholic Beverages in Sumer and Akkad: An Analysis of Iconographic Patterns (4000-2000 B.C.),” *Aram* 17 (2005): 1-50.

¹⁶ Curtis, *Ancient Food Technology*, 218.

¹⁷ Z. Bahrani, *Women of Babylon: Gender and Representation in Mesopotamia* (London: Routledge, 2001), 51-53.

There are many more artistic representations in Egypt. The Fifth Dynasty (ca. 2494-2345 B.C.E.) tomb of Ti at Saqqara provides the most complete account of the Egyptian baking and brewing process; in detailed wall paintings, women are shown alongside men participating in various processing activities related to baking and brewing (Fig. 3-1).¹⁸



Fig. 3-1. Beer producing scene from Ti's Tomb¹⁹

¹⁸ L. Epron, *Le Tombeau de Ti*, *Mémoires de l'Institut Français d'Archéologie Orientale du Caire* 65 (1939), pl. LXVI.

¹⁹ Courtesy of Th. Benderitter, www.osirisnet.net.

Another Fifth Dynasty tomb painting, that of Re'emkuy at Saqqara, depicts women grinding grain and heating bread molds in preparation for brewing beer from malted bread loaves.²⁰ The earliest examples of three-dimensional models depicting women engaged in activities associated with baking and brewing are among the Egyptian servant statues, which first appear in the Old Kingdom (ca. 2686-2160 B.C.E.). Many depict single women grinding grain or kneading dough, although some depict men carrying out these activities.²¹ The First Intermediate Period (ca. 2160-2055 B.C.E.) and Middle Kingdom (ca. 2055-1650 B.C.E.) witnessed the proliferation of tomb models, and many depict detailed bakery and brewery scenes. In several models from the Middle Kingdom tomb of Meketre in Thebes, women are shown grinding grain and kneading dough while men perform other tasks related to baking and brewing.²²

No iconographic evidence for women's production or consumption of beer has been identified in ancient Israel, although terracotta figurines of individuals grinding grain or kneading dough might depict stages in the brewing process. One such figurine, from a Late Iron Age context at Akhzib (ca. sixth century B.C.E.), shows a person of uncertain sex (likely a woman) standing behind a trough, kneading dough.²³ As will be discussed later, in the ancient Near East and Egypt, beer was often produced from baked bread loaves.

Based on these textual and artistic sources, it can be argued that ancient Israelite women drank beer, but no written or artistic sources directly link them to beer production. However, it is our contention that women dominated beer production in Iron Age Israel, precisely because beer was produced in the same space that bread was produced, and by the same women.

Beer Goddesses

Since women were the brewers of beer in antiquity, it should come as no surprise that the earliest deities associated with alcohol in the Near East and Egypt were female. Hathor—the Egyptian goddess of women *par excellence*—was the goddess of love and happiness and a protector of

²⁰ Curtis, *Ancient Food Technology*, fig. 8.

²¹ J. H. Breasted Jr., *Egyptian Servant Statues* (Washington: Bollingen Foundation/Pantheon Books, 1948), pl. 22-24.

²² H. E. Winlock, *Models of Daily Life in Ancient Egypt from the Tomb of Meketre at Thebes* (Cambridge: Harvard University Press, 1955).

²³ Pritchard, ed., *The Ancient Near East*, vol. 1, fig. 22.

women and children, fertility and childbirth. Among her many titles was the "Lady of Drunkenness," and she was the goddess of beer, wine and intoxication. Some inscriptions call her "the inventress of brewing."²⁴ As part of the annual Feast of Hathor, worshippers drank beer in reenactment of the story of the Destruction of Mankind. In this story, Hathor, in the guise of Sekhmet, goddess of destruction, was tricked into drunkenness during a killing spree initiated by her father, Ra, after consuming beer that had been dyed red with ochre to resemble blood. Hathor-Sekhmet mistook the beer, which had been made by the women of Heliopolis, for the blood of humankind and drank the beer until she passed out and humankind was saved. At the end of the story, Ra transformed this goddess of destruction into Hathor, the goddess of love.²⁵

The most important female deity in Mesopotamia—Inanna, later Ishtar—was queen of heaven and earth, fertility, love, war, and alcohol. She was the patroness of tavern keepers, who in early Mesopotamia were usually women (see above). As part of the worship of Inanna, special cakes flavored with wine, beer, and fruits were baked for this "queen of heaven," and in one Sumerian poem, Inanna's genitals are described as "sweet" as "beer."²⁶

There were two Sumerian goddesses of beer, Ninkasi and Siris, and "[t]he brewer's craft is the only profession in Mesopotamia which derives divine protection and social sanction from a goddess."²⁷ The famous *Hymn to Ninkasi* describes the process of brewing beer from loaves of bread.²⁸ Anchor Brewing Company reproduced this *bappir* bread in 1989, and their experiments showed that the hymn provides a linear account of brewing.²⁹

Can we extend the idea of a goddess of beer to ancient Israel? This leads to a consideration of the identification of the Queen of Heaven mentioned in Jer 7 and 44. In Jer 7: 17-18, the prophet rails against the practice of women kneading dough to make cakes for the Queen of Heaven and pouring libations to other gods; in Jer 44: 15-20, the worship of this goddess includes burning incense, pouring libations, and making

²⁴ Curtis, *Ancient Food Technology*, 111.

²⁵ Lichtheim, *AEL* 2, 197-99.

²⁶ B. Alster, "Sumerian Love Songs," *RA* 79 (1985): 127-59.

²⁷ L. F. Hartman and A. L. Oppenheim, "On Beer and Brewing Techniques in Ancient Mesopotamia," (*JAOS* Supp. 10; Baltimore: American Oriental Society, 1950), 12.

²⁸ M. A. Civil, "A Hymn to the Beer Goddess and a Drinking Song," in *Studies Presented to A. Leo Oppenheim, June 7, 1964* (Chicago: The Oriental Institute of the University of Chicago, 1964), 67-89.

²⁹ *Sumerian Beer Project*, <http://www.anchorbrewing.com/beers/ninkasi.htm>

cakes in her image. Although the identification of this deity is still subject to debate, the evidence suggests that she may be a syncretistic deity incorporating the Canaanite goddess Astarte and Mesopotamian Ishtar.³⁰ The association between bread baking and libation pouring in these passages suggests that beer was the preferred beverage offering of the Israelite Queen of Heaven. Israel's male deity apparently shared a fondness for beer: four *hins* of *šēkār* ($\approx$ 16 liters) were libated to Yahweh weekly (Num 28: 7-10).

Brewing Beer in Antiquity

Ancient brewing methods were quite different from modern ones. It was a relatively straightforward process that required at a minimum barley or wheat, water, and yeast. To make beer, grain was kept moist for a few days so that it would begin to germinate. After this, beer producers in antiquity had two options: heat the germinated grains so that they malted, and then throw these malted grains into water with some yeast and wait a few days; or, grind up the germinated grains and bake the flour into malted bread cakes.

Textual accounts and iconographic representations from the Near East and Egypt indicate that beer was often made from malted bread cakes; these are called *bappir* in the Sumerian *Hymn to Ninkasi*.³¹ After the bread cakes were baked, they were crumbled and added to water in other ceramic jars. Several ancient texts, including Eccl 11:1-2, reference "throwing" (*šlh*) one's bread into the water to make the brew.³² Yeast was then added to the mixture or yeast spores in the air would ferment the liquid. A few days later, the beer could be decanted and enjoyed, either plain or flavored with any number of fruits or spices.³³ Since beer does not store well and therefore was made for immediate consumption, the brewing process was ongoing and could be achieved with only one jar.³⁴ Making beer proved to be an excellent way to make the most of a harvest. By choosing to use grains to make beer rather than bake bread, people greatly increased the caloric intake from their harvest and added protein

³⁰ S. Ackerman, *Under Every Green Tree: Popular Religion in Sixth-Century Judah* (HSM 46; Atlanta: Scholars Press, 1992), 116-17.

³¹ Civil, "A Hymn to the Beer Goddess and a Drinking Song."

³² M. M. Homan, "Beer Production by Throwing Bread into Water: A New Interpretation of Qoh. XI 1-2," *VT* 52/2 (2002): 275-78.

³³ *Ibid.*, "Beer and Its Drinkers: An Ancient Near Eastern Love Story," 91.

³⁴ *Ibid.*, 86.

and other vitamins to their diet. Furthermore, the small amount of alcohol killed off bacteria, making it safer to drink than water.

Archaeological Correlates for Baking and Brewing

Since brewing was integral to baking in antiquity, an examination of the archaeological correlates for bread production, as well as the more specialized implements required for beer production and consumption, is required to learn more about the context of baking and the identity of Israelite brewers. As D. Samuel admits in her study of bread production at New Kingdom Amarna, identifying the archaeological evidence for cooking, and specifically baking bread, is a challenge because baking and cooking are highly complex processes.³⁵ Not only does the transformation of grain to bread involve a series of complicated technologies, it also involves numerous tools and installations that do not always survive in the archaeological record. New Kingdom Egypt provides evidence for the use of bread-making tools, including sieves, winnowing baskets, trays, and paddles, stone mortars, wooden pestles, handstones, querns, brushes, jars, and pieces of cloth for collecting flour from around grinding areas.³⁶ Although it can be assumed that many of the same tools were used to make bread in ancient Israel, organic items do not survive well in the climate of Israel.

Using ethnography, ethnohistorical sources from the ancient Near East (especially passages about grinding and baking in the Hebrew Bible), iconography, and archaeological material from Iron Age I (ca. 1200-1000 B.C.E.) sites, Meyers identifies the following archaeological correlates of bread production in ancient Israelite village households: stone grinding equipment including upper and lower grinding stones, mortars and pestles; kneading slabs; kneading troughs; ceramic bread pans and griddles; and cooking installations, including *tabuns*, *tannurs*, and hearths.³⁷ The only artifacts closely related to brewing and baking are ground stone tools, including upper and lower grinding stones, mortars, and pestles, and these were only used in the early stages of both bread and beer production. The fact that earlier generations of excavators often overlooked ground stone tools because their functions were considered to be self-evident, mundane, and evidence of unimportant "women's work" means that even if their

³⁵ D. Samuel, "Bread Making and Social Interactions at the Amarna Workmen's Village, Egypt," *World Archaeology* 31/1 (1999): 122.

³⁶ *Ibid.*

³⁷ Meyers, "Having Their Space and Eating There Too."

presence was noted in excavation reports, the tools themselves were often not illustrated.

In general, though, there is a pattern suggesting that sets of ground stone equipment used for small scale grain processing are found in courtyards and roofed areas within Iron Age household units. In some cases, individual families had their own toolkits, while in other excavated examples, groups of tool sets are found together in a room or courtyard.³⁸ It thus appears that sometimes the arduous task of grinding grain was carried out in groups; Meyers believes that this would have been the locus of important social interactions between women in the village community.³⁹ Although it is impossible to say with certainty that women were the sole grinders of grain and main bakers of bread in ancient Israel, the artistic, textual, and archaeological evidence—as well as the overwhelming ethnographic evidence—suggest that it was women who were most closely associated with these household activities.⁴⁰

Despite the problems involved in identifying archaeological evidence for women's control of bread making technology, there are a number of archaeological correlates for beer production and consumption that have been identified at Iron Age and earlier sites in Israel: ceramic containers, including "flower pots" for baking bread; beer jugs and bottles; straw tip strainers; and fermentation stoppers. When these items are found in association with the tools (mostly ground stone) required to process grains for making bread, it provides insight into the technology of beer production and its socio-economic context.

Ceramic Containers

Throughout much of Egypt's ancient history, the so-called beer bottle or beer jar was used to store fermenting beer. This vessel has a globular base and narrow neck and is often shown in scenes of beer production, like the Old Kingdom examples discussed above. Moreover, one was found with the inscription "beer" (*ḥnqt*) on it.⁴¹ In Israel, they have been found at Deir el-Balah, Beth Shean, and Tel Mor.⁴²

³⁸ J. R. Ebeling and Y. M. Rowan, "The Archaeology of the Daily Grind: Ground Stone Tools and Food Production in the Southern Levant," *NEA* 67/2 (2004): 114-15.

³⁹ Meyers, "Having Their Space and Eating There Too."

⁴⁰ *Ibid.*

⁴¹ Z. E. Szafranski, "Seriation and Aperture Index 2 of the Beer Bottles from Tell El-Dab'a, *Ägypten und Levante* 7 (1998): 96.

⁴² Homan, "Beer and Its Drinkers: An Ancient Near Eastern Love Story," 86.

Other Egyptian ceramic forms closely linked to brewing are bread molds and "flowerpots," so named because of their perforated base. On the second register of Ti's tomb from Fifth Dynasty Egypt, bread molds and "flowerpots" are heated in fires, and then a batter is poured into them for baking (Fig. 3-2).⁴³

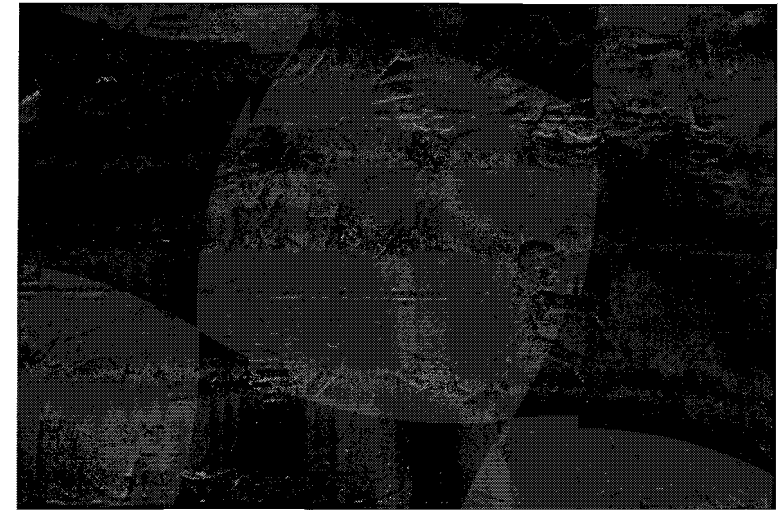


Fig. 3-2. Beer producing scene from Ti's Tomb Detail⁴⁴

Preheated molds prevented the batter from sticking, and the perforated bases on flowerpots allowed for easy extraction of the bread. Prototypes, including Old Kingdom bread molds (*bedja*), were used in producing bread and beer. Baking molds and vats were used in beer production in the Early Bronze I period settlement at 'En Besor in southern Canaan.⁴⁵

Perforated "beer jugs" or side-spouted sieve jugs are well known from the Philistine ceramic assemblage (Fig. 3-3). Derived from Mycenaean IIIc prototypes, this vessel features a filtered spout formed by holes punched into the body at a ninety-degree angle from its handle. It was used for personal drinking rather than serving, as the user would hold the handle and place the spout upon his or her lips.⁴⁶ Side-spouted sieve jugs

⁴³ Epron, *Le Tombeau de Ti*, pl. LXVI.

⁴⁴ Courtesy of Th. Benderitter, www.osirisnet.net.

⁴⁵ R. Gophna and D. Gazit, "The First Dynasty Egyptian Residency at 'En Besor, *TA* 12 (1985): 9-16.

⁴⁶ Homan, "Beer and Its Drinkers: An Ancient Near Eastern Love Story," 91.

appear in quantity throughout Iron Age Israel, used for filtering beer, wine or a combination of these. While residue analyses have been inconclusive, other evidence suggests that these vessels were used to filter and serve beer, wine or a mixture of alcoholic beverages.⁴⁷

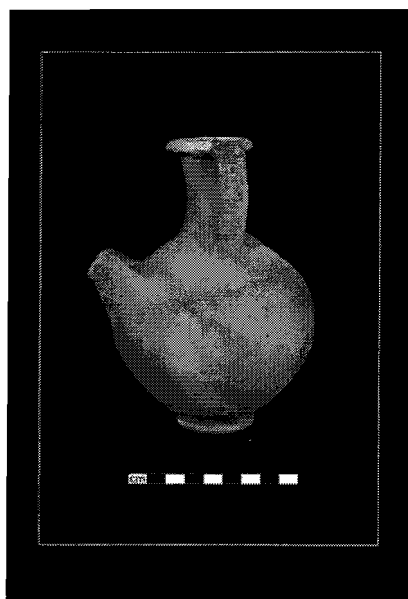


Fig. 3-3. Beer jug⁴⁸

Straw Tip Strainers

As noted above, there are many representations of men and women drinking beer through straws in Mesopotamia and Egypt, and the remains of straws made of reeds and precious materials have been found in Sumer and Egypt. Reed straws do not usually survive in the archaeological record, but a number of perforated bone and metal objects found throughout the Near East have been identified as straw tip beer-strainers (Fig. 3-4). Examples have been found in Middle and Late Bronze and Iron Age contexts in Israel and Syria, and the findspot of a recently identified example at Middle Bronze Age Gesher in the Jordan Valley—inside a jar—

corroborates the iconographic evidence for their function.⁴⁹



Fig. 3-4. Straw-tip strainer⁵⁰

Fermentation Stoppers

The function(s) of perforated round clay objects has been debated over the past century (Fig. 3-5). Originally, excavators including Albright, Crowfoot, Kenyon, Macalister, Starkey and Tufnell identified them as loom weights. At Tell Qasile, B. Mazar discovered about eighty of these objects along with a baking oven and mass quantities of pottery, and he suggested that they were “clay heaters . . . used for keeping food warm.”⁵¹ Similarly, S. Yeivin argued they were used to keep heat during the Sabbath,⁵² while P. Lapp theorized that they were devices to absorb heat in cultic sacrifices.⁵³ Others have argued that they were weights used in fishing nets. Now, the theory that they functioned as weights for warp weighted vertical looms dominates archaeological publications.⁵⁴

⁴⁹ A. M. Maeir and Y. Garfinkel, “Bone and Metal Straw-tip Beer-Strainers from the Ancient Near East,” *Levant* 24 (1992): 218-23; A. M. Maeir, “The Bone Beverage Strainers,” in *Excavations at Gesher* (AASOR 62; eds. S. Cohen and Y. Garfinkel; Boston: ASOR, 2007): 119-23.

⁵⁰ Bone straw-tip strainer from Gesher, Middle Bronze II. Courtesy of Yosef Garfinkel. Photographer Gabi Laron.

⁵¹ B. Maisler (Mazar), “The Excavations at Tel Qasile,” *IEJ* 1 (1950-51): 197.

⁵² S. Yeivin, *First Preliminary Report on the Excavations at Tel ‘Gat’: Seasons 1956-1958* (Jerusalem: Ministry of Education and Culture, Department of Antiquities, 1961).

⁵³ P. Lapp, “The 1968 Excavations at Tell Ta’anek,” *BASOR* 195 (1969): 2-49.

⁵⁴ G. Friend, *Tell Ta’anek 1963-1968 III/2 The Loom Weights* (ed. K. Nashef; Birzeit: Birzeit University Press, 1998); O. Zimhoni, “The Pottery of Levels III and II/Unbaked Clay Stoppers as Evidence for the Context of Vessels,” in *The Renewed Archaeological Excavations at Lachish (1973-1994)*, vol. 4, (ed. D. Ussishkin; Tel Aviv: Emery and Claire Yass Publications in Archaeology, 2004), 1791-92.

⁴⁷ *Ibid.*, 92.

⁴⁸ Philistine “beer jug” or side-spouted sieve jug from Tell es-Safi. Courtesy of Aren M. Maeir, The Tell es-Safi/Gath Archaeological Project.

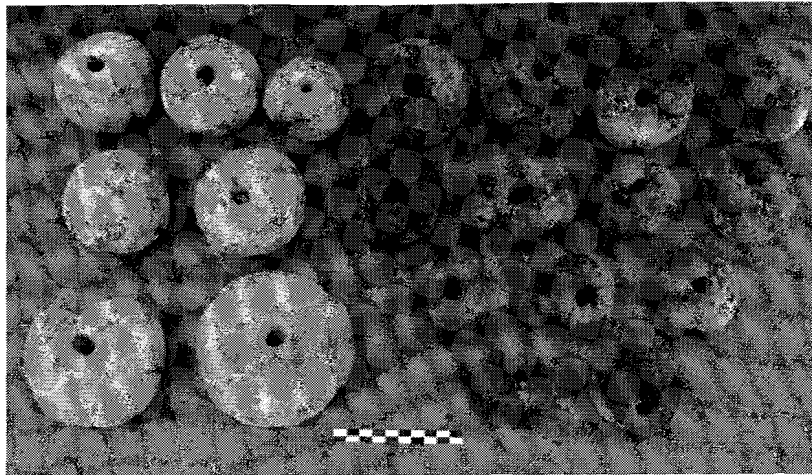


Fig. 3-5. Fermentation stoppers⁵⁵

Recently, scholars have begun to question this theory, for a variety of reasons. First, most are far too fragile to have been used as loom weights. Second, while the warp weighted vertical loom was common in Europe, there is little evidence that it was used in Syro-Palestine. Instead, the horizontal ground loom was the most common form of loom in Egypt, Syria-Palestine and Mesopotamia.⁵⁶ The third difficulty is that the sides of these objects rarely show string marks, which would be expected in fragile clay objects that hung from threads. Fourth, they weigh much more than typical loom weights. Persian and Hellenistic period weights tended to weigh less than 200 grams, whereas these objects typically weigh in the range of 200-800 grams.⁵⁷ Fifth, this wide range in weight is problematic, as a consistent weight would be preferable for producing an even weave. Sixth, the perforations in these objects are most often vertical rather than horizontal. That is to say, when these objects are placed on the ground, the perforation is most often through the top. Loom weights, one would expect, would be designed so that when the object is set down the hole would be in the side. Finally, they are usually found in storerooms, an

⁵⁵ Fermentation stoppers from Zeitah, 10th-9th century B.C.E. Courtesy of R. E. Tappy and the Zeitah Excavations sponsored by the Pittsburgh Theological Seminary. Photographer M. Homan.

⁵⁶ Z. Gal, "Loom Weights or Jar Stoppers?" *IEJ* 39/3-4 (1989): 281-83.

⁵⁷ *Ibid.*

unlikely location for looms.

The best evidence that these perforated clay objects functioned as fermentation stoppers is that several have been found *in situ*, demonstrating that they functioned in such a capacity. At Tell el-Hammah, two stoppers were discovered resting in the mouths of storage jars. The carbonized remains of barley inside the jars indicate that these jars and stoppers were used to ferment beer.⁵⁸ At Tel Zeitah, one stopper was found inside a broken jar, where it had fallen when the jar was smashed (Fig. 3-6). Furthermore, the imprint of woven cloth, visible both inside and on the exterior of surfaces surrounding the perforations, suggests that these items functioned as fermentation stoppers. The cloth was placed inside the holes, thus reducing the amount of bacteria, which would spoil the brew,

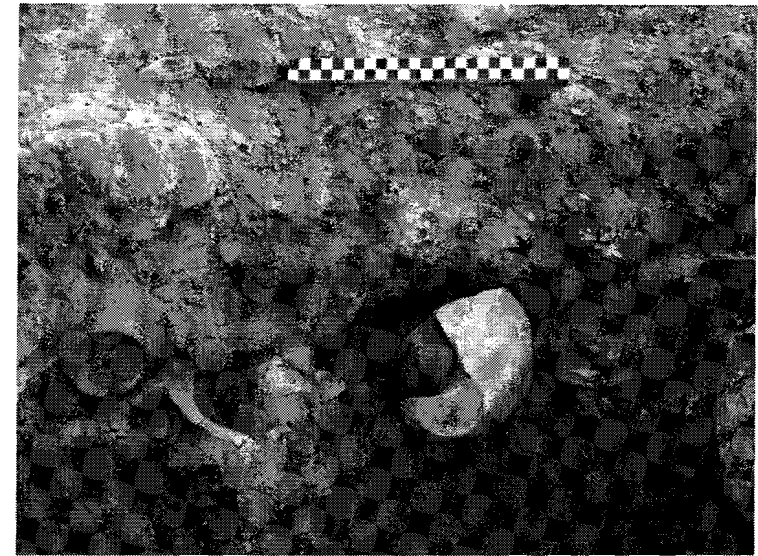


Fig. 3-6. A fermentation stopper found inside a broken jar.⁵⁹

⁵⁸ J. M. Cahill, "The Excavations at Tell el-Hammah: A Prelude to Amihai Mazar's Beth-Shean Valley Regional Project," in *I Will Speak the Riddles of Ancient Times: Archaeological and Historical Studies in Honor of Amihai Mazar on the Occasion of His Sixtieth Birthday*, vol. 2 (eds. A. M. Maeir and P. de Miroschedji; Winona Lake, Ind.: Eisenbrauns, 2006), 429-59.

⁵⁹ One fermentation stopper from Zeitah was found inside of a broken jar, as seen here. The context is a stratigraphically sealed pit that functioned as part of a late 10th-9th century B.C.E. building that was destroyed sometime in the mid-to-late 9th

but allowing the gasses that form during fermentation to escape. Moreover, the size of the objects often corresponds to the size of the mouths of jars found in close proximity.⁶⁰

Attempts to correlate ground stone tools with the ceramic vessels, straw tip strainers and fermentation stoppers used for brewing beer at Iron Age sites have been difficult because of problems relating to the identification, preservation, and publication of these artifacts. An instructive example can be seen at Tel Qasile. In the eleventh century, Room 168 contained the remains of clay troughs, perhaps used in bread production, not far from a courtyard with a grinding installation. The excavator, A. Mazar, suggested that this complex may have been used for brewing beer. He related ten unbaked clay "loom weights" found throughout rooms in the complex to weaving activities.⁶¹ However, when one considers the context, these "loom weights" should be identified as fermentation stoppers, strengthening the excavator's conclusion that beer was produced in this area. The correlation between these specialized artifacts and female-gendered spaces in Iron Age Israelite houses (see below) awaits a careful study of the published evidence.

Ethnographic Sources and Women's Control of Brewing

Although invaluable for understanding many aspects of ancient Israelite lifeways, there is little useful information about women's baking and brewing activities in the early ethnographic sources from Palestine⁶² or in more recently published accounts of Palestinian village life.⁶³ Likewise, the ethnoarchaeological studies carried out in Iran and other

century B.C.E. Courtesy of R. E. Tappy and the Zeitah Excavations sponsored by the Pittsburgh Theological Seminary.

⁶⁰ Personal communication, R. E. Tappy, Director of the Zeitah Excavations.

⁶¹ A. Mazar, *Excavations at Tell Qasile: Part I. The Philistine Sanctuary: Architecture and Cult Objects* (Qedem 12; Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem, 1980), 80.

⁶² E.g., S. Avitzur, *Man and His Work* (Jerusalem: Carta/Israel Exploration Society, 1976) [Hebrew]; G. Dalman, *Arbeit und Sitte in Palestina III: Von der Ernte zum Mehl* (Hildesheim: G. Olms, 1964).

⁶³ E.g., S. Amiry and V. Tamari, *The Palestinian Village Home* (London: British Museum Publications, 1989); Y. Hirschfeld, *The Palestinian Dwelling in the Roman-Byzantine Period* (Jerusalem: Franciscan Printing Press and Israel Exploration Society, 1994).

parts of southwest Asia by Watson,⁶⁴ Kramer,⁶⁵ Horne⁶⁶ and others offer little information that sheds light on ancient baking and brewing.

The primary reason for this lacuna is the fundamental change in grinding technology that has occurred since the Iron Age: a specialized milling apparatus—the rotary millstone—replaced the upper and lower grinding stones known from archaeological contexts in the Middle East. In addition, the Islamic prohibition against alcohol stymied attempts to investigate the production and consumption of alcohol in Middle Eastern societies in the nineteenth and twentieth centuries.

Ethnographic sources can, however, offer insights into the spatial organization of ancient household baking activities, as Meyers has shown.⁶⁷ Since iconographic and textual sources from the ancient Near East and Egypt show that beer was often produced from bread cakes, the spatial correlates of brewing in the areas where bread production was carried out can now be identified. In the "four-room houses" found in Iron Age sites in Israel, for example, the central open space on the lower level may have been the main locus of baking and brewing activities. Only careful reconstruction of the findspots of archaeological correlates for bread and beer production from domestic structures can provide definitive identifications for such use of these spaces.

Ethnographic information also allows for the identification of female-gendered spaces in ancient Israelite households, and may even permit the recognition of women's control of household cooking tasks. Meyers, citing Hirschfeld, notes that ethnographic observations made during a 1970's survey of Ottoman-period houses in the Hebron district document the location of bread ovens in courtyards, sometimes serving several households. They reveal that women were not only in charge of bread production, but they also controlled space for household cooking activities.⁶⁸ Control of these cooking activities, Meyers believes, gave ancient Israelite women social, personal, and socio-political power in their households and villages.⁶⁹

⁶⁴ P. J. Watson, *Archaeological Ethnology in Western Iran* (Tucson, Ariz.: University of Arizona Press, 1979).

⁶⁵ C. Kramer, *Village Ethnoarchaeology: Rural Iran in Archaeological Perspective* (New York: Academic Press, 1982).

⁶⁶ L. Horne, *Village Spaces: Settlement and Society in Northeastern Iran* (Washington, D.C.: Smithsonian Institution Press, 1994).

⁶⁷ Meyers, "Having Their Space and Eating There Too."

⁶⁸ *Ibid.*, 24-25; see also Baadsgaard in this volume.

⁶⁹ *Ibid.*, 30-32.

Future work on identifying women's control of brewing activities in ancient Israel will include the analysis of domestic spaces where the archaeological correlates of brewing have already been identified. Analysis of recently excavated material at sites such as Tell el-Hammah and Tel Zeitah, where fermentation stoppers have been found in association with jars used for brewing, will allow us to reconstruct household brewing technology. It will also provide insight into the gendered component of this activity and the power women gained as a result.

Conclusion

This paper has shown that women were closely associated with beer production and consumption in the ancient Near East and Egypt since at least the third millennium B.C.E. Although textual and iconographic evidence for women's control of beer production in Iron Age Israel is scant, ways of identifying the archaeological correlates for brewing, especially in female-gendered spaces, have been provided. Although its importance has been overlooked or denied until recently, it is certain that beer was a beverage common in ancient Israel, and even prescribed in Temple ritual (Num 28: 7-10) and drunk at sacrificial meals (Deut 14: 26). The brewing methods known from a variety of ancient Near Eastern and Egyptian sources give insight into both the technology and the social context of brewing, and this information can be used to reconstruct the manufacture and consumption of beer in Iron Age Israel.

Since brewing was an offshoot of bread production, and women were most closely associated with baking, one can conclude that women were the primary producers of beer in the Israelite household. Meyers states that women had a monopoly on the transformation of grains to make bread in the early Iron Age,⁷⁰ and to this we add the importance of brewing within the household context. Choosing to brew beer was a relatively easy way for women to increase the caloric and nutritional value of the grains they processed and therefore provide better nutrition for family members. In a future study, we will identify the archaeological correlates of beer production in female-gendered spaces within specific Israelite households, and through this demonstrate not only that women controlled household beer production, but also that the primary interests of women in ancient Israel were food, sustenance, and the preservation of the family.

⁷⁰ Ibid.