

## CHAPTER 10

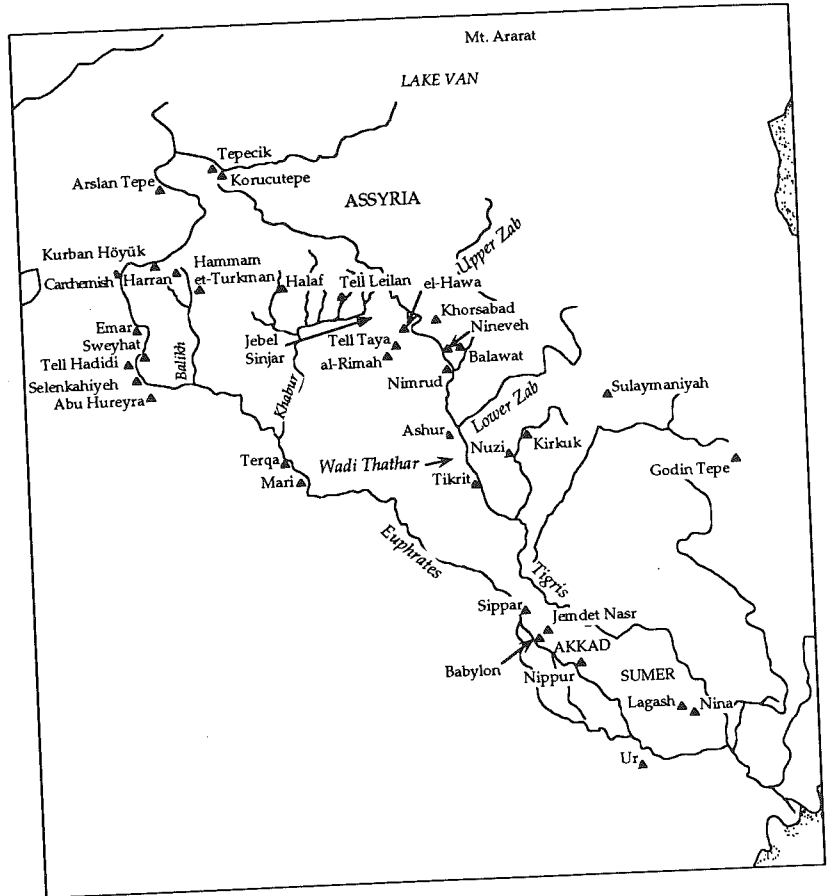
# Searching for Wine in the Archaeological Record of Ancient Mesopotamia of the Third and Second Millennia B.C.

*Richard L. Zettler and Naomi F. Miller*

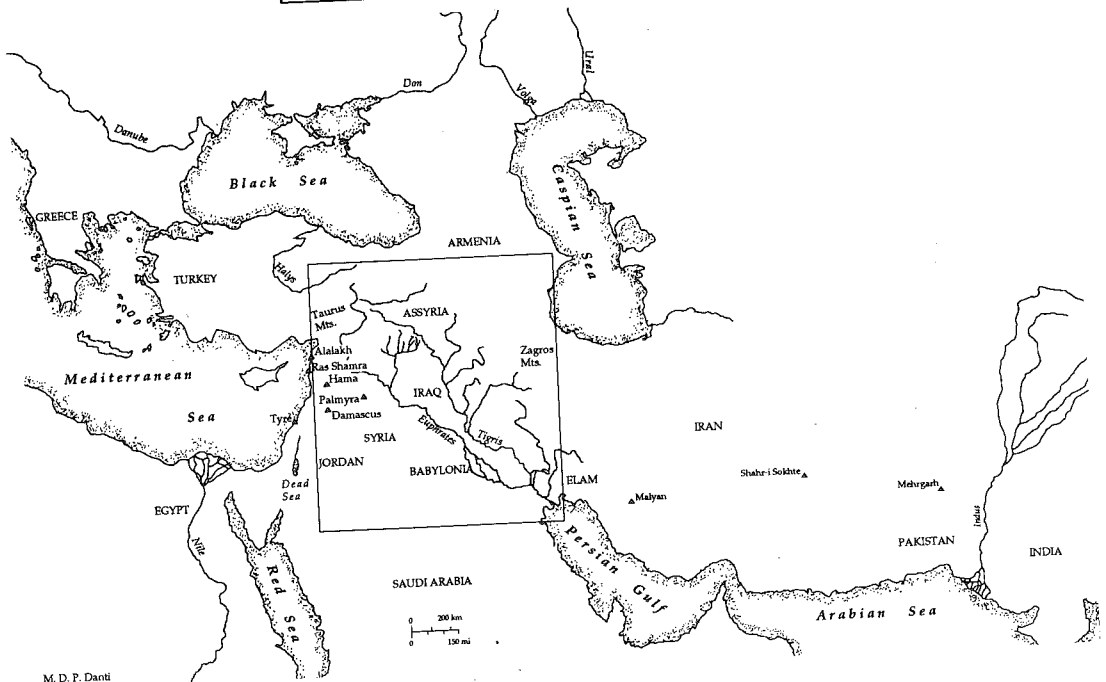
---

Southern Mesopotamia, an area variously dubbed the “cradle of civilization” and the “heartland of cities,” was home to a beer-drinking culture, and the archaeological record reflects that fact. A wide array of evidence exists for beermaking and consumption by the peoples of ancient Sumer, Akkad, and Babylonia (Map 10.1, Table 10.1). A sherd from a pottery jar found at the site of Jemdet Nasr and dating to the late 4th or early 3rd millennium B.C., for example, has the signs for jar and beer inscribed on the neck. The jar would have had a capacity of 25–30 l (Englund and Grégoire 1991: 9). At Lagash, D. P. Hansen (1980–83) uncovered a brewery of the mid-3rd millennium B.C. The brewery included tanks for the making of beer-bread (Sumerian *bappir*), a mixture of dough and aromatic herbs, and a large oven in which, according to the hymn to the beer goddess, Ninkasi, the beer-bread would have been baked (Civil 1964: 72). A silver jar and a gold drinking-tube, probably used for drinking beer, were found in the tomb of the lady Pu-abi in the Royal Cemetery of Ur (Katz and Voigt 1986: fig. 11). Depictions of beer-drinking, for example, at banquets and during sexual intercourse, are common on cylinder seals (Woolley 1934: pls. 193: 17, 20; 194: 22–26, 29, 33), as well as on clay plaques (Parrot 1959b: 75; Saggs 1962: pl. 51C).

No unequivocal archaeological evidence exists from southern Mesopotamian sites that is relevant to grape cultivation or wine production, shipment, storage, and drinking. At least until recent years, archaeologists working in southern Mesopotamia did not routinely try to recover archaeobotanical remains and, in any case, preservation is poor in the area’s salty soils. Production and distribution sites have not been identified, either. Even the written documentation is scarce (see chapter 9 by Powell, this volume). In the nearly three thousand documents of the late 3rd



Map 10.1. The Near East: principal sites.



M. D. P. Danti

**Table 10.1**  
**Evidence of Grapes and Wine-Making<sup>1</sup>**

Site	Period <sup>2</sup>	Evidence	Source
Abu Hureyra*	Neo	Seed (wild)	Hillman 1975
Hama*	Chal, EI	Impressions	Thuesen 1988: 90
Korucutepe*	Chal, EBA	Seed	van Zeist and Bakker-Heeres 1975
Kurban Höyük	Chal, M-L EBA	Seed, charcoal	Miller 1986
Arslan Tepe*	EBA	Seed	Follieri and Coccolini 1983
Tell Hadidi*	LBA	Seed	van Zeist and Bakker-Heeres 1985
Tell Selenkahiyeh*	EBA	Seed	van Zeist and Bakker-Heeres 1985
Hammam et-Turkman*	EBA	Seed	van Zeist, Waterbolk-van Rooijen, and Bottema 1988
Tell Leilan*	Late 3MB	Seed	Weiss 1990: 205
Tell Taya	Akkadian	seed	Waines 1973
Mari	2MB	Text	Finet 1974-77
Godin Tepe	4MB	Organic trace	Badler et al. 1990
Malyan	Ban, Kaf	seed, charcoal	Miller 1982: 183-86, 219, 222-25 and 241-44
Shahr-i Sokhte	3MB	Seed, charcoal	Costantini 1977
Mehrgarh	Mid-3MB	Seed, charcoal	Thiebault 1989

<sup>1</sup>Sites within the natural habitat zone of wild grape are asterisked. <sup>2</sup>Time periods are abbreviated as follows: Neolithic (Neo) = 6th millennium B.C. and earlier; Chalcolithic (Chal) = 4th millennium B.C.; Early Bronze Age (EBA) = 3rd millennium B.C.; Akkadian = ca. 2350-2150 B.C., Mesopotamia; Banesh (Ban) = ca. 3400-2600 B.C., southern Iran; Kaftari (Kaf) = ca. 2200-1650 B.C., southern Iran; Middle Bronze Age (MBA); M-L = Middle-Late Bronze Age; Late Bronze Age (LBA); Early Iron Age (EI); 2MB = second millennium B.C.; 3MB = 3rd millennium B.C.; 4MB = fourth millennium B.C.

millennium B.C. that are available from the large urban center of Nippur, in the center of the southern Mesopotamian floodplain, there are fewer than ten references to grapes, and nearly all of these refer to dried grapes or raisins (*geštin hād*).<sup>1</sup> As Powell (in the preceding chapter) so colorfully expresses it, "Babylonia like Bavaria was essentially a beer-drinking culture. No one with their wits about them would have gone there to drink wine any more than a sensible person would go to the Mediterranean today to drink beer."

### 1. Archaeobotanical Evidence in Greater Mesopotamia

In contrast to southern Mesopotamia, archaeobotanical remains and archaeological evidence for grapes exist for the surrounding area (Miller 1991). Although we do not know when and why the vine was domesticated in the Near East, its cultivation seems to have been established sometime before 3000 B.C. in the natural habitat zone of the wild grape, whence it spread to other parts of the Near East (see chapters 2 by Zohary and 3 by Olmo, this volume).

The morphological distinction between seeds of European "wild" and "domestic" types of *Vitis vinifera* is not that useful for determining Near Eastern archaeobotanical remains (see chapters 2 by Zohary, 3 by Olmo, and 16 by Renfrew, this volume). Wood charcoal is another source of information. Although one cannot tell whether *Vitis* wood comes from the wild or domesticated type, it is unlikely to be collected from the wild for fuel; grape-bearing vines would not grow in dense stands, and the vine stem would not break easily. If, on the other hand, people were growing

grapes, yearly pruning of the vines would provide occasional fuel for the fire. Given the ambiguities of the seed evidence, one can even argue that the best evidence for grape cultivation is occurrence of its charcoal in an archaeobotanical assemblage, especially if the site lies outside the area where the wild type grows (cf. Thiebault 1989). Archaeobotanical remains allow the growing importance of grape in the 3rd millennium to be assessed.

There are a few scattered early finds of grape. Some seeds from Neolithic Abu Hureyra presumably came from wild vines growing along the upper Euphrates (Hillman 1975). Unexpected organic traces of wine were found inside late 4th millennium B.C. jars from Godin Tepe in western Iran (Badler et al. 1990), though flotation samples from the same level contained no charred grape seeds (Miller 1990). It is not until the Early Bronze Age (3rd millennium B.C.) that grape seeds are consistently encountered, sometimes in concentrations, in the archaeological record. By the mid-3rd millennium B.C., grape cultivation had reached far beyond the natural range of wild grape, as far as Shahr-i Sokhte in eastern Iran (Costantini 1977) and Mehrgarh in Pakistan (Thiebault 1989).

Carbonized pips have been found at sites on the upper Euphrates in southeastern Turkey and northern Syria, an area that is within the natural range of wild grape: Korucutepe and Tepecik (van Zeist and Bakker-Heeres 1975), Arslan Tepe (Follieri and Coccolini 1983), Kurban Höyük (Miller 1986: 88), Tell es-Sweyhat (Hide 1990: 16), Tell Hadidi, and Tell Selenkahiyeh (van Zeist and Bakker-Heeres 1985). Impressions of *Vitis vinifera* were identified in pottery from Hama in central Syria (Thuesen 1988: 90). A few carbonized grape pips were recovered from Hammam et-Turkman on the Balikh in Syria (van Zeist et al. 1988), from Tell Leilan in the upper Khabur drainage (Weiss 1990: 205), and from Tell Taya in northern Iraq (Waines 1973).

To the southeast of Mesopotamia, carbonized and mineralized pips and charcoal were identified from 3rd millennium B.C. deposits at Malyan, ancient Anshan, in Iran (Miller 1982: 183–86, 219, 222–25, 241–44). Malyan lies well outside the modern distribution zone of wild grape, so grape at Malyan was probably cultivated (Miller 1983: 184–85).

Inasmuch as they provide plausible evidence for the growing, pressing, and consumption of grapes, the archaeobotanical data from Kurban Höyük, in southeastern Turkey, and Malyan, in southern Iran, merit detailed description. Both sites have small quantities of grape charcoal from 3rd millennium B.C. levels. At Kurban Höyük, the amount of grape remains increased from the late Chalcolithic to the Mid-Late Early Bronze Age (Miller 1991: 150). A sample from a Mid-Late Early Bronze Age pit in Area A yielded unusually high densities of both charred nutshell and grape pips and fragments. In addition, the sample contained the peduncle (stem) and pressed fragments of the fruit itself. The sample, though charred, contained virtually no charcoal and very few of the weed seeds that might be expected in dung, so it was unlikely to have been the remains of fuel. It might, therefore, represent the burned debris of two production processes, grape-pressing for juice, wine or vinegar, and nut grinding for oil or meal (Miller 1986: 88–89).

At Malyan, grape apparently increased in importance between the Banesh (ca. 3400–2600 B.C.) and Kaftari (ca. 2200–1650 B.C.) periods. A few grape seeds and no charcoal of the vine were extracted from Banesh period deposits. Over 100 carbonized grape pips and some *Vitis* charcoal fragments were recovered from Kaftari period deposits. The more than 1200 uncarbonized grape pips from a Kaftari period latrine confirms the conclusion that people consumed grapes (Miller 1982: 241–44). It is therefore not surprising that grapes and grape vines are a feature of one particular group of Kaftari period cylinder seals. The seals (Fig. 10.1) feature a male seated on a stool and a female seated under a grapevine (Amiet 1986: figs. 113–14; Porada 1990: 174–75).

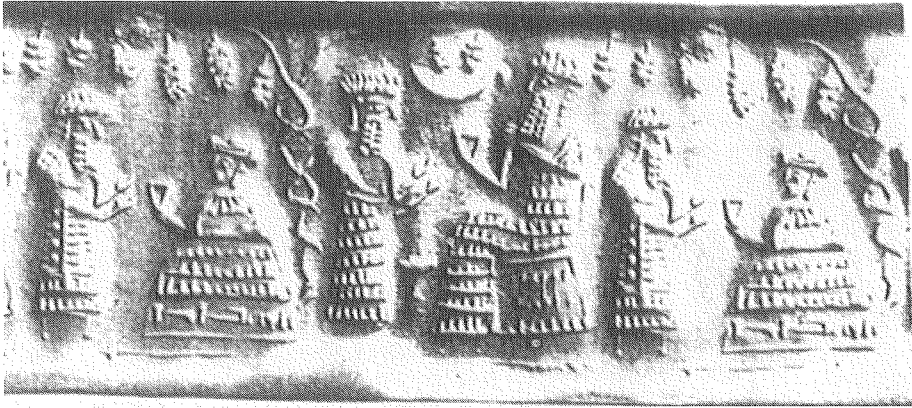


Figure 10.1. Kaftari cylinder seal. (Amiet 1986: fig. 113.5.)

## 2. Mari

The more than 20,000 clay tablets from the early 2nd millennium B.C. royal palace at Mari (modern Tell Hariri) contain information about grape cultivation, winemaking, transport and transshipment, and consumption (see chapter 9 by Powell, this volume). Consequently, it is worth examining the archaeological remains of the palace for information bearing on the handling of wine. Is it possible, for example, to determine where and how wine was stored in the palace, or to identify vessels or vessel types that might have held wine?

The Mari palace (Fig. 10.2) covered ca. 2.5 hectares, and contained at least three hundred courtyards, rooms, and corridors (Parrot 1959a: 5). The ground floor of the Mari palace, the only part of the building preserved, contained several storerooms or complexes of storerooms. For example, storeroom 116 off courtyard 106 contained large storage jars (a typical jar measures 1.05 m. in height, with a rim diameter of 50 cm. and a maximum diameter of 1.28 m.) set into a low mudbrick socle (Parrot 1959a: 94–97). The room has tentatively been identified, based on information drawn from tablets, as a storeroom for oils (al-Khalesi 1978: 12).

Complexes of storerooms (121–23 and 215–18) opened off a corridor (120) in the south-central part of the palace. The storeroom numbered 122 (Fig. 10.3) contained three rows of low, rectangular blocks made of mudbrick. The blocks served as supports for jars, a few of which were found *in situ* (Parrot 1959a: 286–87). The storerooms numbered 216–18 (Fig. 10.4) were not well-preserved, but each contained low mudbrick socles against the walls into which storage jars would have been set. Room 216 could have held 33 jars; room 217 could have held 20 jars. The floors of both 216 and 217 consisted of tamped earth over a bed of pebbles. Although room 218 was the largest of the three rooms, it had enough space for only 15 jars (Parrot 1959a: 289–92).

For the most part, the jars that existed in the storerooms were not preserved, but the bases of some were found *in situ* (Parrot 1959a: 289; Margueron 1982: 338). The jars would have had a maximum dimension of 70 cm. (Margueron 1982: 338). Several pottery lids were found on the floors in the three rooms; the two published examples from room 216 had diameters of 30 and 32 cm. (Parrot 1959b: 140).

Carbonized wood was found in some of the depressions left by the jars on the tops of the socles, as well as on the floor of the rooms (Parrot 1959a: 289–92). Margueron (1982: 338) has suggested that it represented the remains of racks or frameworks built around the jars that would have served to stabilize them.

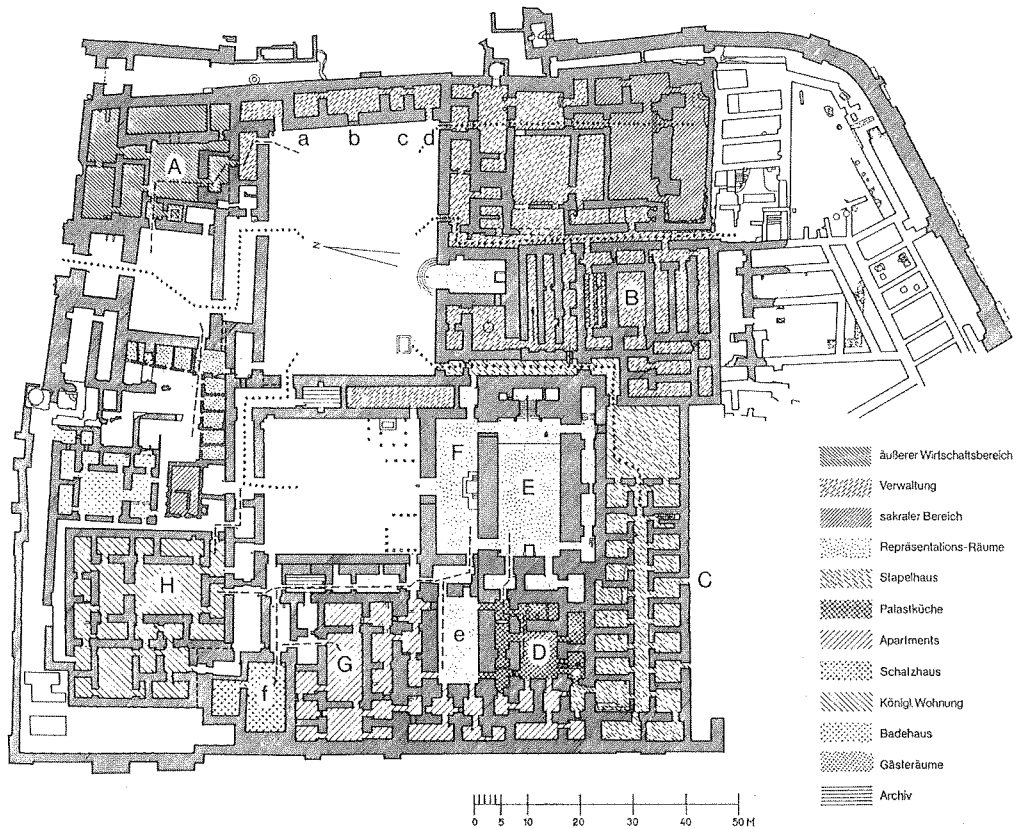


Figure 10.2. The Mari Palace. (Heinrich 1984: 80, fig. 42.)

Is it possible that the storerooms numbered 216, 217, and 218 might have been “wine cellars”? In his study of wine in the Mari documents, A. Finet (1974–77: 125–26) noted that depending on need, wine purchased or received by the king of Mari was kept in the palace either in storerooms (Akkadian *nakkamtu* or *rugbu*) or sent to the “cellars” (Akkadian *kannum*). He also observed that in the storerooms wine was held in the jars in which it was shipped. The wine jars were emptied, and the wine was treated in various ways in the cellar. The term *kannum* might have designated a socle that would support containers with rounded or pointed bases such as wine jars. The term *bīt kannim* would then have designated the room or building where such installations existed. The *bīt kannim* doubtless had large-capacity vats where wine could be stored, racked, decanted, tasted, or put into jars that could then be sealed (Finet 1974–77: 126).

Finet described *kannum* as a fixed installation, but *kannum* might also designate a more portable construction, perhaps made of wood. C. Walker has suggested that *kannum*, translated as “wine rack,” might have been part of the furniture of the dining area (Dalley et al. 1976: 184). He based his suggestion on his reading of documents from Tell al-Rimah (ancient Karana) in northern Iraq that imply that wine designated as for the wine racks (*ana kannim*) was wine intended for immediate consumption. Thus, the Akkadian term *kannum* might plausibly have designated either the fixed or portable installations.

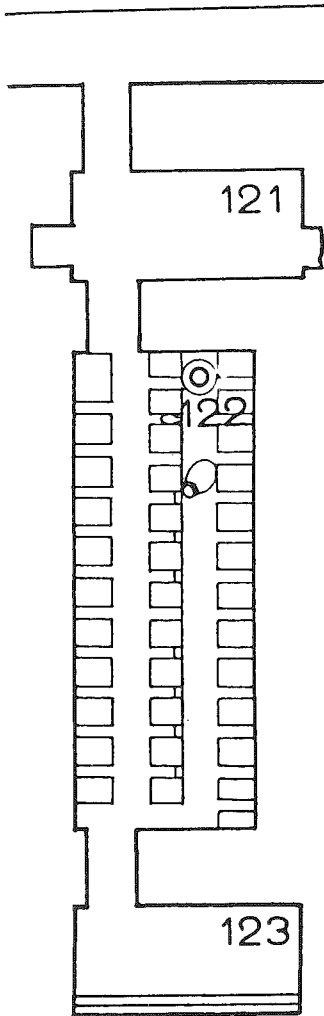


Figure 10.3. Storeroom 122. (Parrot 1958; 2:287, fig. 348.)

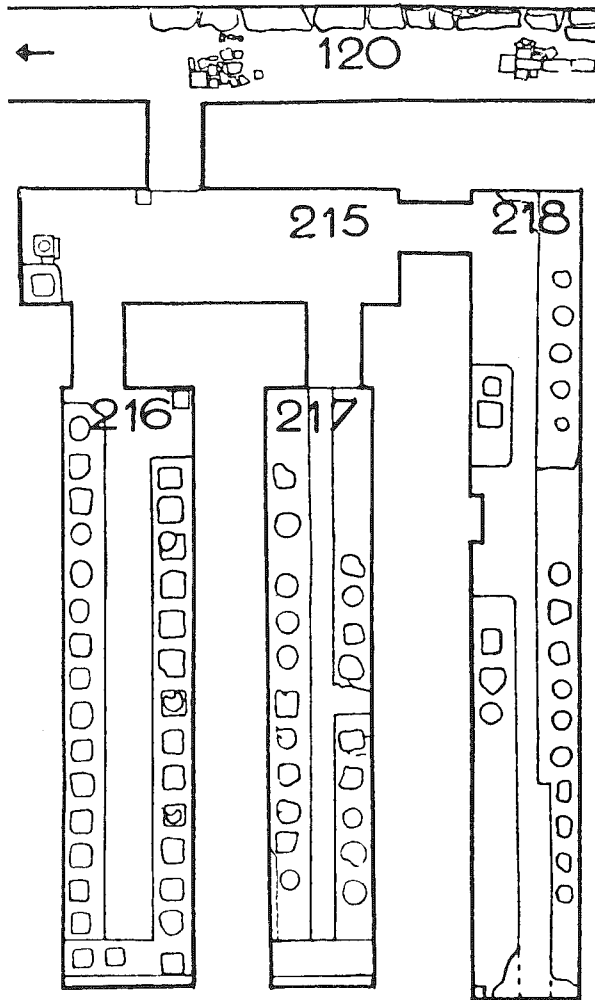
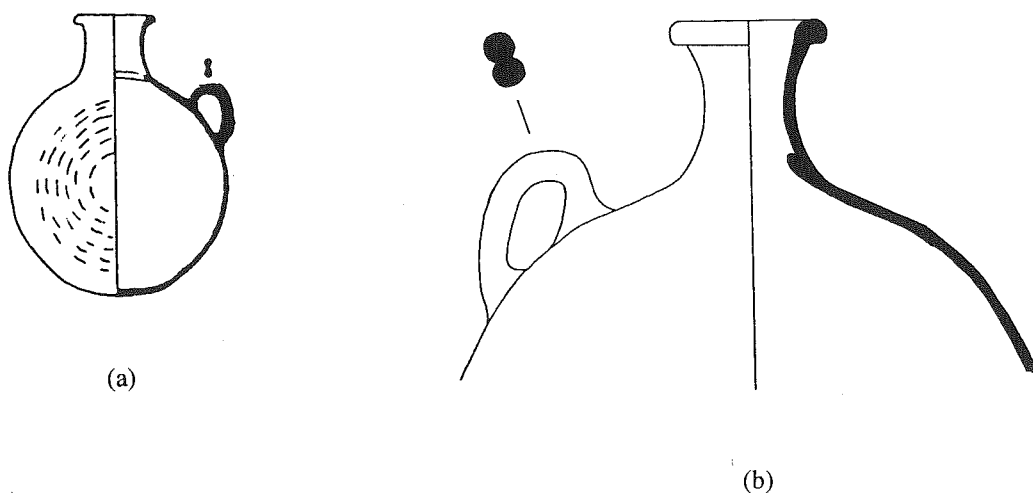


Figure 10.4. Storerooms 216–18. (Parrot 1958: 2:288, fig. 350.)

Could the terms *nakkamtum* or *rugbum* refer to the storerooms numbered 122 or 216–18? The terms *nakkamtum* and *rugbum* are commonly used in the Mari documents with a form of the Akkadian verb *elûm* (*šulûm*) that means to move objects to a higher location (Talon 1985 41; Oppenheim et al. 1958: 128–29; see also Finet 1974–77: 125–26; Durand 1983: 104–5), and the term *rugbum*, in fact, means roof (von Soden 1959–81: 993). M. Powell (chapter 9, this volume) has suggested that wine sent to storerooms with those designations would have been sent to storerooms on the second floor of the Mari palace. Concentrations of artifacts high in the fill of certain rooms of the palace, e.g., molds in room 77, indicate that either the roof was functional space or that part of the palace had a second floor. The current director of excavations at Mari has discussed the evidence and proposed reconstructions of the palace’s second story (Margueron



**Figure 10.5.** Shipping containers from sites on the middle Euphrates: a) (left) Mari, “jarre globulaire à anse bifide,” M. 857m, scale 1:8.3 (Parrot 1959: fig. 84); b) (right) Kurban Höyük, similar type as in a, scale 1:4 (Algaze 1990: 2: pl. 116a.)

1982: 288–309; Margueron et al. 1990). The range of activities, however, that took place in second story rooms or on the roof is not well known.

If Finet’s understanding of *kannum* as “cellar” is correct, at least in its essentials, I would suggest that the term might well have designated storerooms such as 216, 217, and 218. Such an identification, however, could only be confirmed if the bases of one or more of the jars found there could be located and tested for traces of organic remains of wine (see chapters 5 by McGovern and Michel, 6 by Singleton, and 7 by Formenti and Duthel, this volume). Parenthetically, a storeroom (139 off courtyard XVI) at Khorsabad, ancient Dur-Šarrukin (Place 1867: 102–3), with identical features (i.e., socles against the walls and inset jars), functioned as a storeroom for wine in the palace of Sargon II (721–705 B.C.). The term that designated that particular storeroom remains unknown.

### 3. Artifactual Evidence

Do artifacts, such as pottery or clay sealings, from the Mari palace shed any light on the handling and use of wine? André Parrot published very little of the pottery found in the Mari palace, and without a knowledge of the full ceramic repertoire, identifying wine jars would be difficult. The size of a standard wine jar is not even certain. Finet (1974–77: 129) suggested 10 l; Powell (chapter 9, this volume) has indicated that 30 l would be a better guess.

M.-H. Gates (1988: 69–73) has identified a particular type of flask found at Euphrates sites as shipping containers for wine sent from the Levant, since sites in that part of the Near East contain the closest parallels for the shape. The flasks (Fig. 10.5) have a high, narrow neck and a double-stranded handle on the shoulder. An example from the Mari palace would have held 10 l, while an example from Tell Atchara (ancient Terqa), just up river from Mari, would have held 30 l. In addition to the sites noted by Gates, such flasks have also been found at Kurban Höyük in southeastern Turkey (Algaze 1990: 376). On the one hand, the flasks do stand out as imports and



their sizes are roughly what might be expected. On the other hand, Gates' identification of their specific function is little more than guesswork. Perhaps, the jars ought to be examined for traces of their contents.

As a letter from Zimri-lim, king of Mari, to Siptu, his queen, demonstrates, both palace storerooms containing wine and wine jars were sealed. In one letter, for example, Zimri-lim writes, "Fill ten jars with red wine and seal them with this seal; and give them to Bahdi-lim. However, send the seal on the chain back to me" (Dossin 1978: 192–93). The sealing of wine is not surprising. A study of the sealings and their distribution in the Mari palace might have provided some indication of the rooms that would have held wine, and at the same time provided the rim and/or neck and shoulder profiles of sealed jars. D. Beyer (1985) reexamined the sealings from the Mari palace. Few of them proved to have secure archaeological contexts, although one door sealing was from room 217. Beyer determined that of the sealings from the palace, the majority had been broken off doors. Only one sealing had apparently closed a small jar. As was the case with regard to wine cellars and jars, the evidence of sealings from the Mari palace is inconclusive.

#### 4. Summary

In contrast to Sumerian and Akkadian texts, the ancient Mesopotamian archaeological record for the 3rd and 2nd millennia B.C., with the possible exception of archaeobotanical remains from Kurban Höyük, contains no conclusive evidence for the production and consumption of wine. Evidence is lacking even at sites where written documentation indicates that wine was stored and consumed, as for example, in the Mari palace. Perhaps more rigorous excavation and analysis of the palace and its artifacts might have turned up some trace of wine. The search for wine in the archaeological record of Mesopotamia, however, has not proven to be a "fruitless" task. It has at least provided a particularly forceful reminder of the limitations of archaeological and textual evidence studied in isolation and should encourage cooperation between archaeologists, cuneiformists and other scientists in the reconstruction of all facets of ancient Mesopotamian culture, including gastronomy.

#### Notes

1. See, for example, Nippur cuneiform tablets 4 NT 191, 4 NT 197, 4 NT 212, 4 NT 218, 6 NT 176, 6 NT 226, 6 NT 805, NATN 375 (though perhaps from Umma, not Nippur), and NATN 563.

# The Origins and Ancient History of Wine

*Edited by*

**Patrick E. McGovern**

**Stuart J. Fleming**

and

**Solomon H. Katz**

*The University of Pennsylvania Museum  
of Archaeology and Anthropology  
Philadelphia*

(1995)

**Gordon and Breach Publishers**

Australia China France Germany India Japan  
Luxembourg Malaysia Netherlands Russia Singapore  
Switzerland Thailand United Kingdom United States