Sunshine Wine on the Nile

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Introduction

In his 1982 work *Weinstudien: Untersuchungen zu Anbau, Produktion und Konsum des Weins im arabisch-islamischen Mittelalter*, Peter Heine devoted a chapter to wine production methods. While he collected valuable evidence, he treated wine production across Arabic-speaking countries as undifferentiated, giving short shrift to regional variations. He also relied solely on lexical texts and poetry to reconstruct the methods of wine production.¹

This approach is not surprising, for the study of the early Islamic period in Egypt has been traditionally based on non-documentary textual evidence. However, such texts alone only give us a small part of a bigger picture. Archaeology is the study of the traces left behind by human activity. While not necessarily as deliberate an act of leaving a record as writing a text, these traces are important for our understanding of history. Equally important for supplementing our knowledge is art, a non-verbal alternative to textual documentation, but similar to textual sources in that it is a product of the human hand and a human desire to record information for future consultation. Finally, ethnographic evidence, or in the case of this article, the observations of early European travelers to Egypt, is invaluable.

Five years after Heine's work appeared, an early Arabic cookbook was published, which forms the focus of this article: the *Kitāb al-Ṭabikh* of Abū Muḥammad al-Muẓaffar ibn Naṣr ibn Sayyār al-Warrāq. It was probably compiled in the second half of the tenth century CE in Baghdad. Several manuscript copies are known.² Most of the recipes in this cookbook are not identified by the region from which they come. But two recipes for wine are identified as Egyptian. In an attempt to better understand these early Islamic period recipes, I will draw upon evidence from earlier and later time periods, and also expand the type of evidence considered. The ancient Egyptians depicted the preparation of food and beverages frequently in their tombs and temples, and archaeologi-

¹ Heine, *Weinstudien* 31.

² al-Warrāq, *Kitāb al-Ṭabikh*.

cal remains help fill in some of the gaps in our knowledge. Non-Arabic texts and early European travelers' accounts round out the sources. Examined together with these other sources, these two recipes are of great importance in tracing and reconstructing winemaking techniques used in Egypt from prehistory to the present day.

The Role of Wine in Early Islamic Egypt

The manufacture of wine faced a challenge at the beginning of the eleventh century CE in Egypt. Al-Hākim (Fatimid caliph r. 374–411/985–1021), a ruler known for a number of bizarre and strict rules he imposed on the people, prohibited the import and sale of raisins to Egypt in order to stamp out wine production. Raisins were burned, thrown in the Nile, or thrown in the streets and trodden upon. The vineyards of Giza were cut down and he gave orders for the same to be carried out elsewhere. Five thousand jars of honey were dumped in the Nile.³ What were the drinks made from these raisins, grapes and honey that inspired these acts?

These beverages were actually among the most popular of the time. 'Alī ibn Raḍwān, who lived during the eleventh century CE, described Egypt's vintages thus: "The favoured drink among the people is *al-Shamsī* (sunny) because the honey in it preserves its strength and does not allow it to change quickly. The beverage is made when the weather is hot, so that the heat brings the drink to maturity. The raisins used in it are imported from a country with better air. Concerning Egyptian wine, it is rare that honey is not added when it is pressed. Because wine is pressed from native grapes, it resembles their temperament, and therefore the people prefer *al-Shamsī* to it."⁴

During the early Islamic period and later, wine production was mainly in the hands of Christians and Jews.⁵ Monasteries were large-scale producers of wine during the sixth through eighth centuries CE; in particular, Bawit and Wadi Sarga were important centres for winemaking, and at least at the latter, wine was the biggest source of revenue.⁶ During the twelfth century, the Arabic texts indicate wine was still made widely in monasteries.⁷

3 Heine, *Weinstudien* 50; Lutz, *Viticulture* 5–6.

4 Ridwan, *Medieval* 91 (English), 7 (Arabic).

5 Heine, *Weinstudien* 31.

6 Bacot, *La circulation* 272–273, 284. For wine production in Bawit, see also *P.Bruce Bawit*, 93–94. For other places in Egypt, see for example Bacot, *Le vin* (Edfou), Konstantinidou, *Aspects* (Wadi Natrun) and more generally Dixneuf, *Amphores*.

7 Monneret de Villard, *Il monastero* 89.

Monneret de Villard argued that wine production remained common in Egypt from the coming of Islam to at least the twelfth century. He found many Coptic documents mentioning wine in the Vienna papyrus collection, and a number of Arabic ones as well, dating from 724–887 CE, mostly from the Fayyūm.⁸ The association of the Fayyūm with wine was long lasting. In the seventeenth century CE, a European visitor to the Fayyūm described the making of wine there.⁹ It remained the sole province producing wine when the French invaded Egypt, and they quickly recognised that the methods used were the same as those depicted on ancient tomb walls.¹⁰

Honey Wine

The first recipe for Egyptian wine in the cookbook is for a so-called “honey wine” or a mead. I will give the Arabic version,¹¹ with my own translation, interspersed with relevant commentary:

عمل النبيذ المصري
يؤخذ جزء عسل بشمعه ورغوته فيجعل في قدر وتصب عليه خمسة اجزا ما ويغلى حتى يذهب منه
الربع

Making Egyptian Wine

Take one part honey with its wax and its froth and put it in a pot and pour five parts water on it and boil it until it is reduced by a quarter.

Arabic texts tell us that grapes were pressed, and presumably picked, in July, August and September.¹² Several Greek texts indicate grapes were picked between the end of July and the middle of August.¹³ While we do not have such detailed records from ancient times, wine was closely tied in ancient Egypt with the star Sirius, which rose in mid-summer.¹⁴ Arabic sources indicate that honey

8 Ibid., 88.

9 Vansleb, *Nouvelle* 255–256.

10 Gerard, *Details* 129–130.

11 As published in al-Warrāq, *Kitāb al-Ṭabikh* 303. Cf. Nasrallah, *Annals* 462.

12 Heine, *Weinstudien* 32; Pellat, *Cinq* 247.

13 Kruit, *The meaning* 273; Rathbone, *Economic* 250.

14 Meeks, *Oléiculture* 20.

was collected mainly in June and the work finished in July, just as the grape harvest and pressing began.¹⁵

Thus it is not surprising to find a close connection between honey and grape-based beverages. We see this close association in the paper by Alain Delattre in this volume. The pre-Islamic predecessor of this so-called “Egyptian wine” made from honey was something known in Greco-Roman times and late antiquity by a variety of Greek names οἶνό-μελι, ὕδρόμελον or μελίκρατον. This mixture of honey and water was used frequently in Greek medicine and appears in even earlier Greek medical papyri. It also could be used in dyeing and alchemy.¹⁶ This beverage may have an even more ancient history. It has been suggested that two ancient scenes, one from a temple and the other from a tomb, represent the making of such a fermented honey drink.¹⁷

The next line of our text reads:

ثم يترك حتى يبرد ويجعل في دنان او كيزان و يجعل على راسه ورق الكرم و يشقب في راسه ثقب
ليخرج الغليا منه

Then leave it until it cools and put it in an earthenware wine jug or large vessel with handles and put grape leaves on top of it and pierce its neck with a hole to allow the fermentation gases to escape from it.

This description is very close to a find dating probably to the seventh century CE from the Monastery of Epiphanius in Luxor of amphorae with wads of vine leaves stuffed into the necks and then covered over with a 10 cm high stopper of mud and chopped straw.¹⁸ Rush bungs were used as stoppers in the wine jars found in King Tutankhamun's (pharaoh r. ca. 1332–1323 BCE) tomb and at the palace of Malqata belonging to Amenhotep III (pharaoh r. ca. 1386–1349 BCE). Other ancient stoppers found include those made from a circular reed mat, a bung of chopped chaff mixed with adhesive, a bung of chaff with mud, reed wadded up in a ball, or even a pottery stopper (either a disc or a shard of pottery).¹⁹

15 Pellat, *Cinq* 231. However, in modern times honey is not collected during the summer (Kuény, *Scènes* 90).

16 P. Alex inv. 291 (Andorlini, *Greek* 166); Chouliara-Raios, *L'Abeille* 150–151.

17 Kuény, *Scènes* 92.

18 Winlock and Crum, *The monastery* 79.

19 Hope, *Jar sealings* 14; Lesko, *King* 20.

The effect of summer heat under which this fermentation took place is represented in ancient tomb scenes showing wine jars overflowing.²⁰ In one relief, the overflowing jars were being fanned by a man, perhaps in a futile attempt to keep them cool.²¹

Piercing a hole in the neck relieved the pressure of the turbulent fermentation going on inside. Holes for the fermentation to escape in the jars from the Monastery of Epiphanius were either made in the mud stopper or drilled directly into the neck of the jar with a metal awl or something similar after baking.²² Similar artefacts were found at a monastery in Meinarti in Nubia. There, holes had been drilled in the necks of the pitched jars, which were then sealed with mud. This work took place in a chamber adjacent to the monastery's refectory.²³ During his excavations on the shores of Lake Maryut, Empereur found amphorae with holes in their necks.²⁴ In fact, one ancient tomb scene depicts the collection of taxes and among the remittances are jars labelled as honey. The mud covers on these jars are depicted with what may be holes identical to those depicted in paintings of wine jars, although these could simply be seals.²⁵

These methods date back at least to the earliest period of Egyptian history. Wine jars found at the Early Dynastic sites of Saqqara and Abydos had such holes.²⁶ New Kingdom tomb scenes depict wine jars with square-topped seals with such holes clearly illustrated.²⁷

Lerstrup and Mayerson have argued that such holes may not have been used to allow the secondary fermentation to escape, for they do not occur in all wine jars, and the latter has suggested they were instead used to draw the wine out of the jars.²⁸ These arguments are not convincing, for at least two reasons. First, these holes are not always very easy to see and therefore may have been more common than previously noted.²⁹ Secondly, many of the surviving wine jars did not have their original stoppers, as it seems that some wine was rebottled

20 Davies, *The tombs* pl. xxx.

21 Davies and Gardiner, *The tomb* pl. xxvi.

22 Winlock and Crum, *The monastery* 79.

23 Adams, *The vintage* 283.

24 Empereur, *La production* 42.

25 Meeks, *Oléiculture* 23 n. 135.

26 James, *The earliest* 198.

27 Davies, *The tombs* pl. xxx; Säve-Söderbergh, *Four* pl. xv.

28 Lerstrup, *The making* 73; Mayerson, *Jar stoppers* 219–220.

29 James, *The earliest* 198.

after it reached its final destination, thus there would be no secondary fermentation lock.³⁰

One is next instructed thus:

فاذا هدا غليانه طين وترك في الشمس اربعين يوما

When its fermentation subsides, coat it with clay and leave it in the sun for forty days.

This describes a process that is well attested during Greco-Roman times in Egypt. In those days, wine was left to age in sunning areas known as ἡλιαστήριον. The first mention we have of a ἡλιαστήριον was not actually from a Greek papyrus, but from a demotic one that dates to between 107–30 BCE.³¹ We know from texts that the ἡλιαστήριον was well-guarded and had locks and keys.³² Two papyri from Oxyrhynchus described what happened in the ἡλιαστήριον. One, dating to 257 CE said, “And when these [jars] have been filled with wine, we shall place them in the sunning area, seal them, move them, and guard them for as long as they stay there ...”³³ However, the presence of a guard may have not been simply for the purpose of protecting against theft, but also to ensure that the wine was fermenting properly. A papyrus from Oxyrhynchus detailing an inspection of wine amphorae before they were sealed deemed a number of them undrinkable because they had turned to vinegar.³⁴ An intriguing tomb scene from the New Kingdom seems to indicate that the history of the ἡλιαστήριον goes back to ancient Egyptian times. This depicts a guarded walled enclosure filled with wine jars (the guard however seems to have tasted a little too much wine and has fallen asleep on the job). The walls of the enclosure are shown with undulating tops. Säve-Söderberg suggested that these walls might represent the walls of an enclosure, rather than a wine cellar. However,

30 McGovern, Wine 91–95. Additional evidence that wine was rebottled after reaching its destination is a limestone stamp found in Tuthmosis IV's (pharaoh r. 14th c. BCE) temple at Thebes used to stamp wine as coming from an area in the Delta (Petrie, *Six* 3). Moreover, among the pierced jar sealings found at Amenhotep III's temple at Malqata, two were for jars containing fat, suggesting that jars originally used to ship wine to Thebes were reused to hold other substances (Hope, Jar sealings 7).

31 P. Dem. Gieben 2 (Vandorpe and Clarysse, A Greek 131). The word was written in demotic as *h'ly'stryn*.

32 Vandorpe and Clarysse, A Greek 129.

33 Mayerson, ἀμπελουργον 188. See also Rathbone, *Economic* 253.

34 P. Oxy. 1673 (Brun, *Le vin* 71).

he thought this was simply a temporary storage location, rather than an integral part of the winemaking process.³⁵ However, I would argue that it might actually represent a ἡλιαστῆριον.³⁶ Another tomb scene depicts a garden surrounded by an undulating wall.³⁷ Such undulating brick walls have been found by archaeologists and were used as enclosure walls of cult temple complexes.³⁸ Therefore, it seems such walls were used for open areas such as the ἡλιαστῆριον, not for roofed enclosures.

The Geniza documents contain a recipe for “good wine” that involved mixing honey with spices, plastering the jar over, and leaving it in the sun for 7 days. Shamsī is specifically mentioned elsewhere in the Geniza documents.³⁹ Vansleb, a seventeenth-century visitor to Egypt observed that wine was left open in the sun in those days.⁴⁰

Finally we read:

ثم نَحْي من الشمس وجعل على روسها جلود و ترك اربعة اشهر في الظل وتستعمل بعد ذلك ان شا
الله

Then remove it from the sun and put skins on its necks and leave it for four months in the shade and then use it after that, God willing.

The Greek texts indicate there were two stages of fermentation of wine: one of two weeks, another of several months.⁴¹ From one Greek papyrus, it can be deduced that the period of fermentation of grape wine was similar in the Greco-Roman period. In this text, the author wrote that he had not sealed some wine jars because the merchants wished to wait until December 31 to ascertain whether the wine had a good odour before purchasing it.⁴² In Greco-Roman times, wine was drawn from the vats between December and March.⁴³

35 Säve-Söderbergh, *Four* 18.

36 Säve-Söderbergh, *Four* pl. xv.

37 Wilkinson, *The manners* 143.

38 Spencer, *Brick* 114–116.

39 ENA 2808, f. 22 (Goitein, *A Mediterranean society*).

40 Vansleb, *Nouvelle* 255–256.

41 Kruit, *The meaning* 273.

42 *P. Oxy.* 1673 (Brun, *Le vin* 71).

43 Kruit, *The meaning* 273.

Raisin Wine

The second recipe is for a raisin wine:

صفة عمل الزبيب شمسي على رأي اهل مصر:
يؤخذ لكل عشرة ارطال بالمصري سبعة وعشرين رطلا ما حلوا يؤخذ من الما المذكور سبعة ارطال
وينقع الزبيب في العشرين رطل الما في مطر مزفت او غيره يقعد منقوع ستة سبوع ايام ويمرس في كل
يوم من ثني ثلاثة مرس جيد قوي

Recipe for making 'Sunshine' Raisin (Drink) According to the Custom of the People of Egypt

For every 10 Egyptian *ratls* [of raisins] take 27 *ratls* of sweet water. Take from this water 7 *ratls* and soak the raisins in 20 *ratls* of water in a pitched or unpitched Byzantine amphora and let it sit soaking for 6 or 7 days, squeezing it strongly two or three times every day.

The Eucharistic wine of the Coptic Church is normally made from raisins. The raisins are cleaned with water and then placed in an earthenware pot filled with water to a depth of six centimetres above the raisins. They are soaked for three to five days, after which they are removed and squeezed.⁴⁴ Wine made from raisins was also esteemed in Napoleon's time as a source of vinegar. In those days, the raisins used were often imported from Cyprus or Greece.⁴⁵

The amphorae at the monastery of Epiphanius also were smeared with a resinous pitch for the clay of the jar would have otherwise been too porous to keep the wine from evaporating.⁴⁶

Two hundred years ago, the wine was first put in cylindrical earthenware jars and allowed to ferment for eight to fifteen days.⁴⁷ In Vansleb's day, this initial fermentation period lasted seven days, like in our text.⁴⁸

44 Khs-Burmester, *The Egyptian* 113.

45 Girard, *Details* 235.

46 Winlock and Crum, *The monastery* 79.

47 Gerard, *Details* 130.

48 Vansleb, *Nouvelle* 255–256.

ثم يفرغه في مجور كبير ويدوسه برجليه

Then you pour it into a large trough and crush it with the feet.

Ancient Egyptians treaded grapes with the feet to release their juices. This is frequently depicted in ancient tomb scenes.⁴⁹ It is also mentioned in Greek language texts from Egypt.⁵⁰ The French savants noted that the grapes were first crushed for about an hour in an earthenware jar.⁵¹ A number of large crushing installations have been unearthed, the earliest dating to the New Kingdom at the site of Tell el-Daba, but also a fair number from the Byzantine Period. In fact, one such installation was found at the site of Marea and another very similar one was excavated at Abu Mina both possibly dating to the fifth or sixth century CE.⁵²

ثم يعصره ويفسل النفل بالسبعة ارطال اما المعزول المتاخرة من تتم الوزن غسيل مليح الى ان لا
يبقى في النفل شيئاً

and then you press it and wash the sediment with the seven *ratls* of water left over until no sediment is left.

Napoleon's scholars witnessed the grapes being put in a wool sack and twisted to squeeze out their juice.⁵³ Grapes were pressed in a similar manner in ancient Egypt, but in a linen sack.⁵⁴

ويصفيه ويضاف اليم يفلش شتمر غريض وبلاب فلوش مرتين اخضر وثمان دراهم ورق رند واوقية زر
ورد ويحلا بثلاثة ارطال فطاره عال

And strain it and add to it 1 *fals* of fresh fennel seeds, 3 *fals* fresh worm-wood and rosebay (*murratayn akhdar*), 8 *dirhams* of bay leaves and an

49 For an overview of treading grapes in ancient Egypt, see Murray, Boulton, and Heron, *Viticulture* 586–588.

50 Rathbone, *Economic* 253–254.

51 Gerard, *Details* 130.

52 al-Fakharani, *Recent* 183–184.

53 Gerard, *Details* 130.

54 Montet, *La fabrication* 120–124.

uqiyya of rose petals and sweeten it with 3 *ratls* of excellent-quality fermented dough (*fattāra* 'āl).⁵⁵

Wine made from raisins, known as “straw wine” in Europe, is extremely sweet and needs no extra sweeteners.⁵⁶ In fact, according to Heine, additives like pepper, saffron, rosewater and musk were often used to compensate for the overly sweet taste of some wines.⁵⁷ However, in this case some sort of sweetener was also added. The “good wine” in the Geniza texts that I mentioned earlier was suggested by Goitein to simply be a syrupy additive to flavour grape wine.⁵⁸ In our recipe, it seems that something similar was happening.

ويوعى في الجرار ويحط في الشمس اسبوعين وان اضاف اليه دردى الخميرة كان اصلح

and put it in a bottle and put it in the sun for two weeks and if you add the dregs of yeast it will be better.

The bottle used here, the *jarra*, had a tall neck and two handles and was the kind of vessel in which wine was normally sold.⁵⁹ According to Napoleon's savants, the fermented wine was finally poured off into jars that had been used to import oil into Egypt, buried up to their neck, and then sealed.⁶⁰ The juice of the Eucharistic wine is poured into vessels in which they are allowed to ferment for at least forty days, after which it may be used for the Eucharist.⁶¹ Adding yeast would have helped to speed up the fermentation process and may have been necessary if the wine were made in winter from raisins dried during the previous summer's harvest.

Conclusion

While wine remained a drink of the elite throughout pharaonic times, its production methods are well-attested in visual and archaeological sources. In

55 As Nasrallah (*Annals*, 262 n.13) points out there are a number of Egyptian dialectal forms in this recipe such as reading 'sh' for 's'.

56 Heine, *Weinstudien* 34–35.

57 Ibid., 82.

58 Goitein, *A Mediterranean society* 260.

59 Heine, *Weinstudien* 85.

60 Gerard, *Details* 130.

61 Khs-Burmester, *The Egyptian* 82. According to Butler (*The Ancient* 281), this wine is not fermented, but from his description of its manufacture, this seems unlikely.

Greco-Roman times, wine became a drink of the masses and its production is mentioned frequently in both Greek and Demotic texts. Although the coming of Islam gradually reduced the importance of wine as a beverage, it continued to be manufactured in the monasteries and in the Fayyūm until recent centuries as attested by textual, archaeological and ethnographic sources. By tracing this process through the full range of sources available, it is apparent that winemaking in Egypt is an unbroken tradition of at least 5000 years. The climate and agricultural seasons played a pivotal role in shaping and maintaining the particular process and nature of Egyptian wine that distinguishes it from the wine in other parts of the Middle East, to the extent that Ibn al-Warrāq specifically indicated that two recipes in his compilation were Egyptian ones.

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