

found at Khirbet Butz. The channel connecting the floor to the vat might initially be blocked by small branches of poterum (great burnet) or another plant or object which would act as a sieve keeping grape skins and stalks out of the vat, but this sieve would fast become blocked up. During the treading process all skins and solids would be gathered to the centre of the floor by feet, broom or wooden shovel. When enough must was pooled in the floor, the channel block would be removed and all other skin and wastage removed by hand. These would later be pressed to capture any remaining liquid, before starting the fermentation stage of the wine production process.

Frankel (pers. comm.) has suggested that L3—the vat in Area B which was not connected to any treading floor—may have served for producing red wine, which involves leaving the skin in the must during fermentation.

Two final points of interest will be mentioned. Firstly, given that Khirbet Butz wineries may have been in use during the Umayyad period, we note that it is not impossible that Muslims were the operators. The Druze and Muslim workers who were the subjects of the above-mentioned ethnographic recordings were not treading grapes to make wine, but rather a sweetmeat called 'Dibes'.

Secondly, it is possible that olives were also crushed in the treading floors, this action being shared by both wine and olive oil production. For this reason, there is considerable debate about whether or not the same installations would be used for both grapes and olives (see Frankel 1999: 57) and such is certainly possible for this simple treading floor type.

References

- Ayalon, E., Frankel, R. and Kloner, A. (eds.) 2009. *Oil and Wine Presses in Israel from the Hellenistic, Roman and Byzantine Periods* (Biblical Archaeological Reports International Series 1972). Oxford.
- Frankel, R. 1999. *Wine and Oil Production in Antiquity in Israel and Other Mediterranean Countries* (Journal for the Study of the Old Testament/American School of Oriental Research Monograph Series 10). Sheffield.
- Govrin, Y., in preparation. Salvage Excavations at Khirbet Butz - 2007. *Nelson Glueck School of Biblical Archaeology Reports 2*.
- Mayerson, P. 2000. The Meaning and Function of ληνός and Related Features in the Production of Wine. *Zeitschrift für Papyrologie und Epigraphik* 131: 161-165.
- McGovern, P.E., Fleming, S.T. and Katz, S.H. (eds.) 1995. *Origins and Ancient History of Wine* (Food & Nutrition in History & Anthropology Series II). Philadelphia, Amsterdam.

Appendix: Artifact Photographs (by locus)



L1

No.	Field no.	Type	Description
1.	102/1	Bowl	Light orange ware; collared rim.
2.	102/2	Bowl	Red/orange coarse ware; thickened, bevelled and pointed rim.
3.	104/2	Bowl/Jug	Red/orange coarse ware; ring base.
4.	104/1	Flint blade	Marbled grey stone; backed.



L2

No.	Field no.	Type	Description
1.	103/1	Bowl	Red coarse ware; thickened rim.
2.	112/1	Bowl/Jug	Light orange ware; ring base.
3.	112/2	Bowl/Jug	Light orange ware; ring base.
4.	112/3	Jar/Jug	Light orange ware; handle.
5.	112/4	Jar/Krater?	Light orange ware; rim handle; simple rim (?).



L3

L3

No.	Field no.	Type	Description
1.	106/1	Bowl/Jar	Orange ware; ridged.
2.	106/2	Bowl	Red ware; purple slip; glazed.

*L4**L4*

No.	Field no.	Type	Description
1.	107/1	Bowl	Orange ware; thickened, bevelled, pointed.

*L5**L5*

No.	Field no.	Type	Description
1.	108/1	Bowl?	Red coarse ware; body sherd.
2.	108/2	Oil lamp?	Orange/red ware; simple rim.
3.	108/3	Bowl	Grey/orange ware; external striations.

*Area A Stray.**Area A Stray.*

No.	Field no.	Type	Description
1.	113/1	Storage Jar/ Krater?	Light orange coarse ware; ridged handle.



Area B Stray.

No.	Field no.	Type	Description
1.	109/1	Bowl/Jar?	Grey/orange ware; body sherd.
2.	109/2	Jar	Red/orange ware; external striations; burnt?
3.	106/1	Flint blade	Marbled grey stone; no retouch.
4.	110/1	Bowl	Light orange ware; thickened, flattened rim.
5.	110/2	Bowl?	Red ware; ledge rim.