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Salvage Excavation of Two Wine Presses at Eden Hills, Elah Valley - 2010 Final Report

Excavation Permit: B - 354/2010
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Academic Sponsor: Hebrew Union College



Introduction¹

This salvage excavation was carried out from 7-11th July 2010, on a hill (elevation 382m) overlooking the Elah Valley (location coordinates below). The dig focused on two areas – A and B – in each of which was located the remains of an ancient wine press cut into the exposed chalk bedrock (or ‘nari’). The two excavation areas and their associated artefacts will be described in this report, followed by an interpretive discussion of the findings’ possible significance.

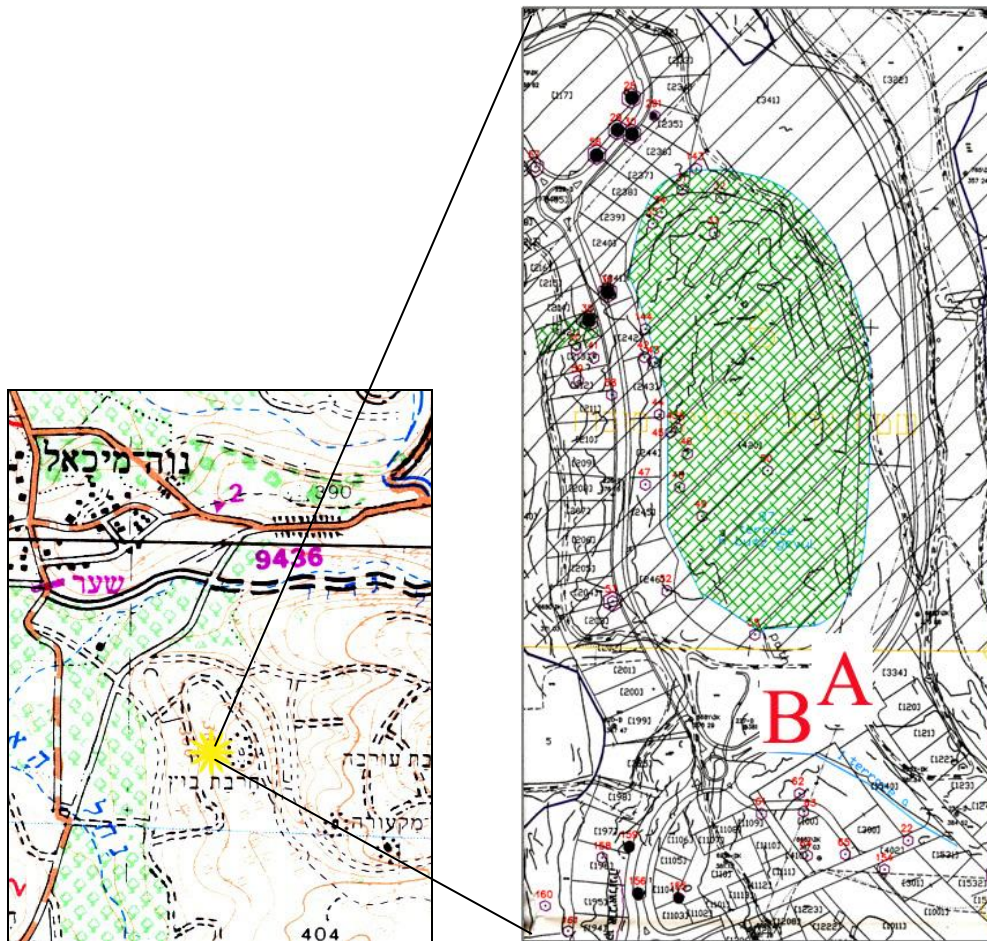


Figure 1: Location map of the Eden Hills project location, with an expanded view of the current excavation site and Areas A and B marked (31°39'55.4''N / 35°00'45.4''E).

¹ Thanks to Yehuda Govrin for giving me the opportunity to direct and write up this dig. He is the *de facto* manager of what is an ongoing salvage project. Thanks to Mr Dov Sreter of Eden Hills for contracting YG Archaeology, and for his enthusiasm and assistance at every stage of the excavation. His deep interest in archaeology and desire to include this heritage in the completed Eden Hills development project is a breath of fresh air for us archaeologists.

Also, many thanks for their analyses and research advice to Dr. David Ilan and Levana Tsfania of the Nelson Glueck School of Biblical Archaeology at the Hebrew Union College, Jerusalem, to Dr. Jodi Magness of the University of North Carolina at Chapel Hill, and to Dr. Barbara Johnson of the Albright Institute of Archaeological Research. Thanks also to the staff of the Israel Exploration Society for their bibliographical assistance.

Area A

This area encompassed a wine press with a total area of 12.75m² (Fig.2). The press consisted of a rectangular treading floor (L1) and a circular vat (L2, Fig.4), linked by a narrow channel. The installation was heavily damaged, especially the treading floor. The cause of the damage was unclear.

Excavation of the press yielded 100 potsherds, 85% of which came from the vat. These sherds came from Byzantine/Umayyad bowls and jars (7-8th centuries). Also found on the treading floor was a chipped-stone blade fragment.



Figure 2: Area A (from northwest)



Figure 3: Vat (L2) (from south)

Area B

The wine press in this area – ca.50m west of Area A – covered 10.2m² (Fig.4). It was comprised of a rectangular treading floor (L5), a rectangular vat (L4) (linked to the treading floor by a channel), another rectangular vat (L3) which was neither connected to the first by a channel nor a bore hole, and a cup mark (L7, Fig.5), located 1.12m west of the L4 vat.

During the excavation of this press 21 potsherds were found. These were distributed evenly between the treading floor and vats. The sherds represent bowls, jars and possibly cooking

vessels which generally date to the Byzantine/Umayyad centuries. A chipped-stone blade fragment was also found in this wine press.



Figure 4: Area B (from south)



Figure 5: Cup mark (L7)

Interpretation and Discussion

These wine presses follow the simplest design for such installations (Frankel's type T1[Frankel 1999: 51-56]). Depending on when it was damaged (by earthquake?), it may be that the Area A press was never used. But that aside, the two installations differ in that the Area A treading floor is twice as large² and the Area B press was more elaborate: it incorporated a second vat (L3) and an associated cup mark (L7). Whereas the function of the

² According to Frankel's (1999: 53) statistical analysis of T1 wineries, both A and B at Eden Hills are very common designs. Area A has a large treading floor, and Area B is of average size.

second vat is a mystery, the cup mark may have served as a mortar for the grinding of a substance related or unrelated to the adjacent wine production process. It seems too shallow (0.08m) and gently-sloped a depression, however, to have served as a socket supporting the apparatus sometimes erected to aid those treading grapes (Frankel 1999: 42, 55 and Fig.1 [p.58]).

The differences between the two presses may suggest that they were not contemporaneous. It is difficult to say. There are overlaps in the usage periods of their respective design types, and the broader T1 category was built from the Chalcolithic period (i.e from ca.4300 BCE) right through to Umayyad times. On the whole the artefacts from both presses point to a Byzantine/Umayyad date (Johnson, Magness, pers. comm.) (discounting what were probably stray flint blade fragments from earlier periods). This impression accords with quantitative analyses of ancient settlement and winery data in the southern Levant, which indicate that both population density and wine production reached their peaks in the Late Roman and Byzantine periods (Frankel 1999: 51).

Whether both installations were in operation at the same time or not, we can envision them as part of something in the way of a family-run winery, a small-scale operation of the local population in the Byzantine/Umayyad period. Other features and possible settlements have been found in the immediate site vicinity during previous seasons of work here by YG Archaeology. Ethnographic recordings of such installations in use near Hebron and Masada in more recent times (see Frankel 1999: 42 and references) reveal that one man could tread 100 kg of grapes in 45 minutes on such a treading floor as found at Eden Hills. 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.

Two final points of interest are worthy of mention. Firstly, given that the Eden Hills installations 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'.

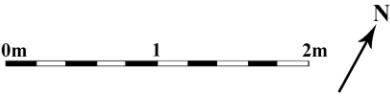
Secondly, it is possible that olives were also crushed in the treading floors, this action being shared by both wine and olive oil production. There is considerable debate about whether or not the same installations would be used for both grapes and olives (see Frankel 1999: 57), but this is certainly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

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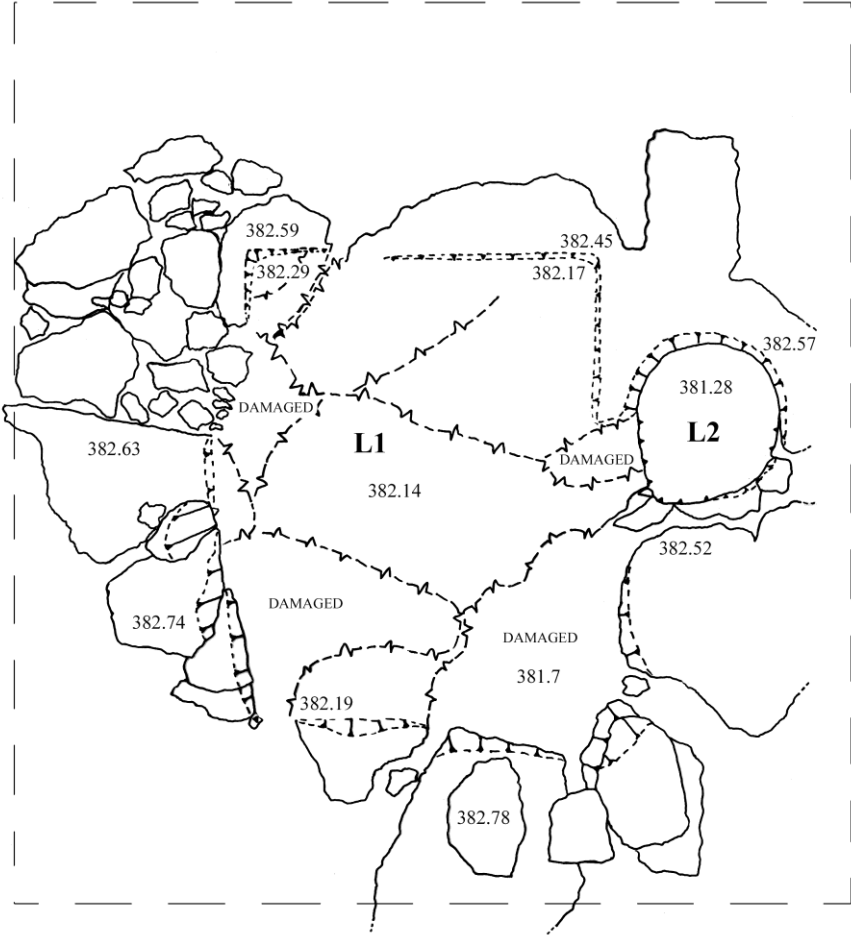
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Plans and Sections

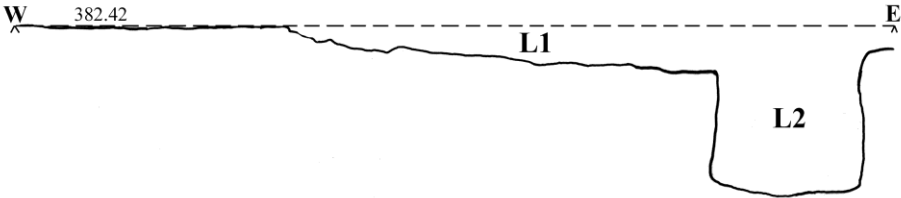
Eden Heights 2010
B-354/2010
Area A

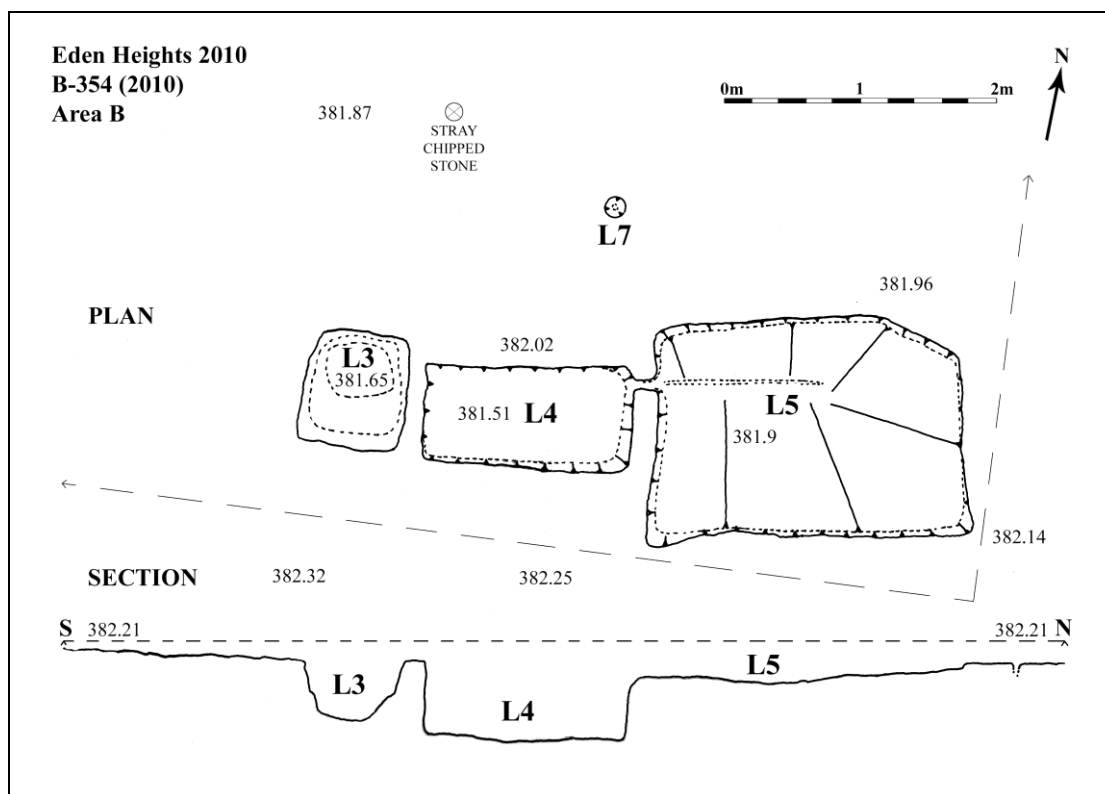


PLAN



SECTION





Artefacts L1



No.	Reg. 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.	Reg. 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



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

L4



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

L5



No.	Reg. 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)



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

Area B (stray)



No.	Reg. 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.