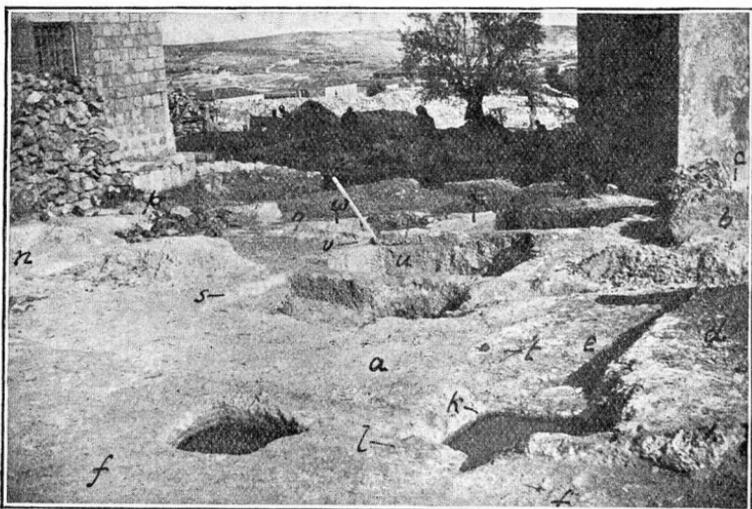


A ROCK-CUT PRESS NEAR JERUSALEM.

By R. A. S. MACALISTER, M.A., F.S.A.

IN the garden known as "Abraham's Vineyard," on the north-west side of Jerusalem, is a rock-cut press for the extraction of wine or olive oil, which is of sufficient interest and extent to merit special notice. It is probably the finest work of its kind in the neighbourhood of the city.

Essentially it consists of an artificially levelled rock-surface, divided into compartments by steps and by raised partitions, and containing several vats, large and small, for receiving and for refining the liquid

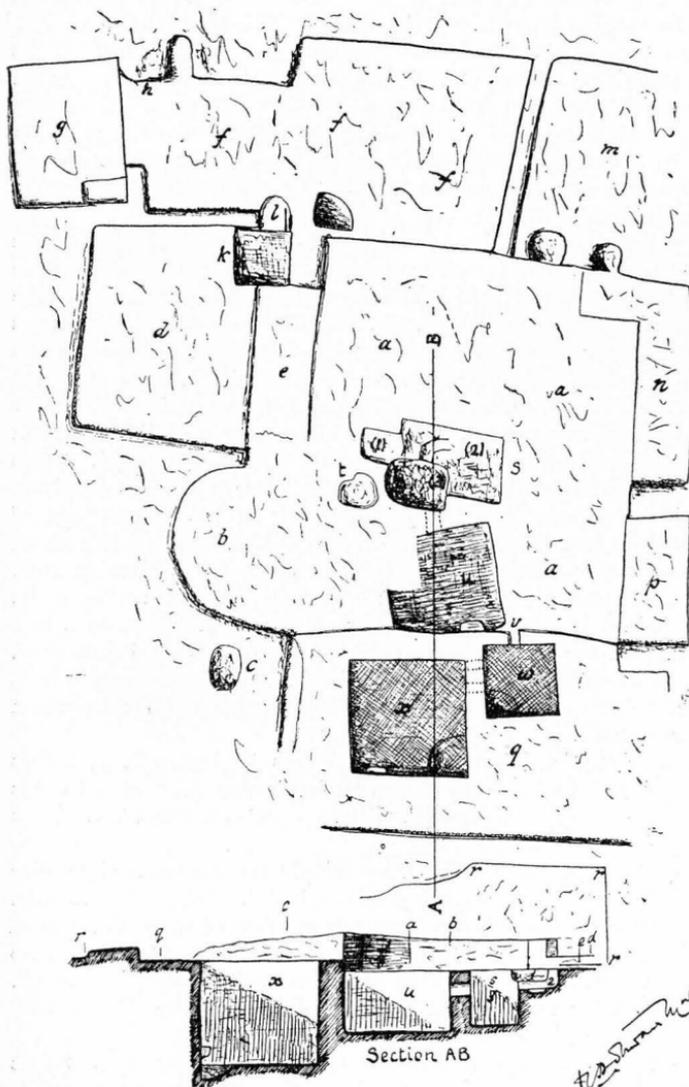
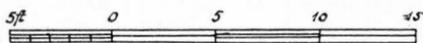


ABRAHAM'S VINEYARD (WINEPRESS).

pressed from the fruit. The following detailed description, aided by the accompanying plan and section, will convey a knowledge of its characteristics to the reader.

In the centre is a four-sided plane surface (*aa*), measuring about 20 feet by 16 feet, and containing within its area three vats, which will presently be described. In the east corner of this plane, on the south side, is a kind of apse (*b*) irregularly laid out, 9 feet in length, 6 feet in breadth. To the east of this apse the uncut rock rises to a height of 1 foot 6 inches above the general level of the floor. In this uncut portion is a small and irregularly formed vat (*c*) 11 inches deep, 2 feet

ROCK-CUT PRESS NEAR JERUSALEM



H. S. ...

long, 1 foot 6 inches across. This vat has no apparent connexion with the press under discussion; and in all probability it is the surviving member of a cup-mark system destroyed when the press was cut. The uncut top of the rock falls in level toward the south.

Proceeding towards the west we find next to the apse a platform (*d*), four-sided, and raised 6 inches above the level of the central surface—or, rather, above the level of a step (*e*) which intervenes between the platform and the central surface. This step is 2 feet 8 inches across, and commencing from zero close to the eastern limit of the platform rises to a height of a little over 1 inch at its western end. The platform is separated from the apse by a partition of uncut rock 1 foot across, 11 inches high on the side of the platform. The platform is 10 feet 10 inches long (north-west to south-east), and apparently about 10 feet wide; the latter dimension is uncertain, as the south-west end is covered with earth.

Nearly the whole of the present western end of the system is occupied by a long and irregular platform (*ff*), about 4 inches above the level of that marked *d*, and 1 foot above the central space. I say the *present* northern end, as my friend, Mr. W. H. Dunn (to whose kindness I am indebted for assistance in examining this press, which is in the grounds under his management), assures me that it formerly extended further in the northern direction, the place of the extension being now occupied by a modern cistern. The maximum length of this platform is nearly 20 feet. At its southern end is a sunk space (*g*), 8 feet 4 inches across, and about 3 inches below the level of *ff*. The partition between *ff* and *g*, except for 1 foot 11 inches at the eastern end of the line between them, is broken away. In the east corner is a small oblong vat 2 feet across. At the point *h* the uncut surface of rock bounding the press rises to a height of 1 foot 10 inches: this is the maximum height of the rock-wall round the cutting. Close to *h* is a curious niche in the rock, 1 foot 10 inches long, 1 foot 1 inch across, and of the same depth as the surface, *ff*, itself. This may possibly be a socket for the reception of the end of the wooden beam with which the fruit was pressed.

Drainage from *ff* fell into a vat, *k*, 2 feet 11 inches long, 2 feet 7 inches across, 1 foot 5 inches deep. Liquid was conducted to this vat by means of a sunk channel, *l*. There is also a small vat, 1 foot 1 inch deep, in the surface *ff*.

Beside *ff* is another platform, *m*, separated from the former by a pier of rock 1 foot 2 inches high on the *f* side, 8 inches high on the *m* side. This platform was covered with a great pile of firewood when I examined the press, but as Mr. Dunn informed me that its surface displayed no details of interest, I did not think it worth while having it cleared. Two niches (similar to that near *h*) will be seen in the vertical face between *m* and the central surface (*n*).

On the north side of the central surface is a low step, 2 feet 2 inches broad at the northern, 4 feet 2 inches broad at the southern end,

and returned for 3 feet along the west side. This step is divided into two compartments (*n*, *p*) by a pier of rock.¹

To the east of the central space is another space (*q*), containing two large vats; this is bounded on the eastern side by a block of uncut rock, 9 inches high. The east side of this rock has been quarried, the scarp being marked *rrr* on the plan. This is possibly the remaining fragment of a further extension southward of the system.

The most feasible explanation of the purpose of these various compartments and platforms seems to be this. The press served for a vine- or olive-yard (most probably the latter), belonging to several proprietors; each proprietor collected his own olives in the compartment devoted to his own use, to await his turn for pressing them. This prevented the fruit belonging to different owners from becoming mixed together, and secured each man's share to himself. Possibly the proprietor of the platform *f* preferred to crush a few olives for immediate use while his colleagues were engaged with the large central vats: this might be put forward as an explanation of the small independent vat-system associated with that compartment.

The central system of vats remains to be described. The most westerly of these, *s*, is a triple vat, consisting of three basins (1, 2, 3), respectively 8 inches, 1 foot $\frac{1}{2}$ inch, and 3 feet deep, inter-penetrating. In the floor of (2) is a drain conducting liquid to (3). The vat (*u*) to the south-east of this is 3 feet $3\frac{1}{2}$ inches deep. It is connected with *s* by a channel (shown in the section) 10 inches below the level of the surface of rock *aa*. In the south-east corner of *u* is a rectangular depression, 2 feet 7 inches by 1 foot 6 inches. Close to *s* is a roughly formed and apparently unfinished vat, 11 inches deep: possibly the commencement of a receptacle afterwards, for some reason, placed at *u*. It is not quite clear how the vats were used, though it is obvious that the basin marked (3) was intended as a refining vat, the liquid being allowed to stand in it till the sediment had deposited, and then transferred to *u*. The channel between (3) and *u* is no doubt an overflow channel. I am inclined to think that three stages of refinement are in some way indicated by the three levels of the composite vat *s*, but I cannot say that I feel sure of this.

The surface *q* is about 6 inches above the level of *a*; the step between them is interrupted at one point, *v*, where a little channel is cut to drain into the vat *w*. (This is one of the most puzzling details in the whole system.) It is not quite evident what relation, if any, existed between the two systems of vats, *s*, *u* on the one hand, and *w*, *x* on the other. It seems fairly clear that fruit was crushed on the floors, *a*, *q*, and that the juice was collected and refined in *s*, *w*, and stored for use in *u*, *x*; but it is not obvious why the independence of the two systems is not preserved,

¹ The mound shown in the photographs (just under the letter *n* in the view from the south-east) is modern—a pile of waste lime left after recent building operations.

and the juice from *a* is allowed to run into a vat belonging to *g*. One possible explanation might be advanced, namely, that *w*, *x* were originally the only vats in the system, and that *aa* formed the crushing ground. All the fruit was crushed on this surface, and the juice conducted through the channel *v* to the vats for subsequent refining processes; and that for some reason—to prevent delay, possibly—it was afterwards thought advisable to form two more vats (*s*, *u*) in this surface, and to form another crushing ground round *w*, *x*. The process could then be carried on in two independent systems at once, and thus would occupy but half the time. Though not a conclusive proof of this suggestion, I may advance in its favour the fact that the vats *w*, *x* differ in three remarkable details from the otherwise similar vat *u*. (1) Their floors are covered with a tessellated pavement. (2) They are much more carefully laid out; they are almost perfectly square on plan, and contrast to a marked degree in this respect with *u*, as a glance at the plan will show. (3) The pottery in the plaster lining of *w*, *x* is Roman, in that of *u* Arab.

For the rest, the vat *w* is 3 feet $2\frac{1}{2}$ inches deep, and has a sunk circular depression in the corner of its floor 1 foot deep for the collection of dregs. Vat *x* is 5 feet 5 inches deep, and has a similar depression of similar depth in its corner. In the south-east side of both *x* and *u* is a bracket-like step—in the former near the bottom, in the latter 1 foot 5 inches from the top—for facilitating descent. There are two channels connecting *w* and *x*: that to the north is 5 inches below the surface, that to the south $3\frac{1}{4}$ inches above the floor. Evidently *w* is the refining vat, *x* the receiving vat, of this system. The lower channel was stopped up, and the liquid pressed out on the floors (*a* or *g*) was directed into *w*; the upper channel remained open, and prevented an overflow. The liquid was allowed to stand in *w* till the sediment had settled, and then the plug was removed from the lower channel, which is just above the level to which sediment would probably accumulate. The refined liquid thus flowed into *x*. When *w* was emptied it was probably cleaned out and washed, the last dregs of sediment being drained out of the way into the cup in the corner, and then the process was recommenced. The capacity of the receiving vat is roughly four and a half times that of the refining vat.

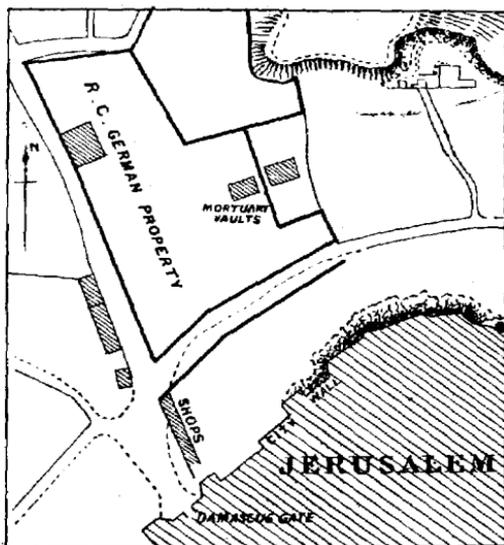
Of the date of this interesting vat there is no definite indication. All the floors were covered, and the vats *w*, *x* were lined with plaster. The plaster in the vats shows large fragments of Roman pottery in its composition; and this, together with the mosaic floor, which can hardly be older than the Roman period, may show that the press belongs to that epoch. If the suggestions above made about the relative ages of the various members of the system be tenable, the other vats must belong to a later date.

To the south of this olive press, and now in the basement of the house built near it, is a large columbarium, cylindrical rather than bell-shaped, 18 feet in diameter, 10 feet 6 inches high. Its walls are covered

with square loculi, irregularly spaced out. Columbaria are very rare in the neighbourhood of Jerusalem, though common enough in the neighbourhood of Beit Jibrin: the present example belongs to the type so frequently represented in that district. I forward a print of a flash-light photograph of part of the wall of this columbarium, taken by Miss Marian Reynolds, of Rosebank, Putney, during a recent visit to Jerusalem, and kindly given to me by her for the use of the Fund.

EXCAVATIONS AT JERUSALEM.¹

"WE have begun to level the 'Paulusplatz' at the Damascus Gate. It is well known that there is an old building there 23 m. long by 16·5 m. wide. During the operations excavations were made along the ancient walls in order to see what they enclosed. . . . First of all we cleared



away what lay around the great block of rock to the west of the old wall. The block is 3·30 m. long, 1·65 m. wide, and 1 m. high, and rests on two supports 50 cm. high, placed immediately upon the rock. On the eastern side the opening thus formed is walled up, so that

¹ Translated by the Rev. J. E. Hanauer from the Report of the Rev. Father and Procurator P. Dunkel, in *Das Heilige Land* (J. P. Bachem, Cologne, 1902, April, Part II, pp. 91, 92), the organ of the German Society of the Holy Land (formerly the organ of the "Society of the Holy Sepulchre").