## Ḥadashot Arkheologiyot-

Excavations and Surveys in Israel 130

## Appendix: OSL Field and Laboratory Results from Ramat Barne‘a

NAOMI PORAT

| Site | Lab <br> code <br> (EZZ) | Description | Depth <br> (m) | K <br> (\%) | U (ppm) | Th (ppm) | Ext. $\alpha$ ( $\mu \mathrm{Gy} / \mathrm{a}$ ) | Ext. $\beta$ ( $\mu \mathrm{Gy} / \mathrm{a}$ ) | Ext. $\gamma+$ Cosmic ( $\mu \mathrm{Gy} / \mathrm{a}$ ) | Dose rate ( $\mu \mathrm{Gy} / \mathrm{a}$ ) | No. of discs | $\begin{aligned} & \text { O-D } \\ & \text { (\%) } \end{aligned}$ | De (Gy) <br> (CAM) | Age (ka) <br> (CAM)* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 97 | 20 | South side, between two stones | 0.55 | 0.55 | 1.8 | 4.6 | 8 | 713 | 334 | $1055 \pm 32$ | 16/19 | 47 | $3.5 \pm 0.2$ | $3.3 \pm 0.2$ |
| 97 | 21 | North side, between bedrock and lower stones | 0.50 | 0.21 | 1.6 | 1.8 | 6 | 382 | 320 | $707 \pm 27$ | 18/19 | 21 | $6.8 \pm 0.3$ | $9.7 \pm 0.6$ |
| 97 | 22 | Stones circle, below a stone | 0.30 | 0.56 | 1.7 | 4.4 | 6 | 702 | 352 | $1063 \pm 33$ | 17/19 | 71 | $0.9 \pm 0.1$ | $0.8 \pm 0.1$ |
| 102 | 23 | Below a stone | 0.75 | 0.27 | 1.5 | 2.4 | 6 | 432 | 362 | $800 \pm 30$ | 18/19 | 27 | $10.4 \pm 0.5$ | $13.0 \pm 0.8$ |
| 102 | 24 | Above a paving stone at the base of the fill | 0.60 | 0.45 | 1.9 | 4.9 | 9 | 665 | 380 | $1053 \pm 33$ | 16/18 | 30 | $6.6 \pm 0.3$ | $6.2 \pm 0.3$ |
| 103 | 25 | Outside, between the lowest stones | 0.85 | 0.48 | 2.3 | 4.4 | 10 | 724 | 296 | $1030 \pm 32$ | 15/19 | 36 | $8.9 \pm 0.3$ | $8.6 \pm 0.4$ |
| 103 | 26 | Inside, between the lowest stones | 0.40 | 0.67 | 1.9 | 5.3 | 9 | 824 | 282 | $1151 \pm 33$ | 17/19 | 33 | $5.3 \pm 0.3$ | $4.8 \pm 0.3$ |
| 105 | 27 | North side, base of fill, between stones | 0.40 | 0.66 | 1.9 | 5.9 | 10 | 831 | 308 | $1149 \pm 34$ | 16/19 | 35 | $6.2 \pm 0.4$ | $5.4 \pm 0.3$ |
| 106 | 28 | Fill, between stones | 0.35 | 0.42 | 1.6 | 3.6 | 7 | 575 | 310 | $892 \pm 29$ | 14/18 | 29 | $4.0 \pm 0.2$ | $4.5 \pm 0.2$ |
| 108 | 29 | Below stones | 0.85 | 0.51 | 1.9 | 4.9 | 9 | 705 | 354 | $1068 \pm 33$ | 18/19 | 22 | $9.2 \pm 0.3$ | $8.7 \pm 0.4$ |
| 108 | 30 | Between two low stones | 0.60 | 0.54 | 1.8 | 4.5 | 8 | 704 | 354 | $1066 \pm 33$ | 16/19 | 20 | $5.1 \pm 0.2$ | $4.8 \pm 0.2$ |

Notes: Quartz, grain size $88-125 \mu \mathrm{~m}$. Depth includes stone cover. Time-averaged water contents were estimated at $3 \pm 2 \%$, reflecting aridity and seasonal variations. Alpha and beta dose rates were calculated from the radioactive elements and the gamma and cosmic dose measured in the field using a portable gamma counter. O-D (over dispersion) is a measure of the scatter within the sample. De average and errors were calculated using the central age model (Galbraith et al. 1999).
*Minimum ages are marked in bold, and maximum ages-in italics.

## REFRENCE

Galbraith R.F., Roberts R.G., Laslett G.M., Yoshida H. and Olley J.M. 1999. Optical Dating of Single and Multiple Grains of Quartz from Jinmium Rock Shelter, Northern Australia: Part I, Experimental Design and Statistical Models. Archaeometry 41:339-364.

